C.I.A. Miguel Caballero S.A.S.
Performance Verification Testing for
C.I.A. Miguel Caballero S.A.S.
Supply of Ballistic Resistant Vest
Test Record- MIG24010 (1-14)

Prepared By:

Nick Zerger

Element Materials Technology Wichita
7447 W. 33rd St. N.
Wichita, KS 67205
USA

26 April 2024

This document is the sole property of C.I.A. Miguel Caballero S.A.S.

This report shall not be used to claim product certification, approval, or endorsement. The results of the testing relate only to the samples submitted for testing and are not representative of a complete model or lot. This test report shall not be interpreted as an endorsement by Element Materials Technology as to the continued quality or performance of any items of the same or similar design.

Element Materials Technology is an independent testing facility and has no affiliation with C.I.A. Miguel Caballero S.A.S.

1. Introduction

C.I.A. Miguel Caballero S.A.S. provided Element Materials Technology Wichita armour samples of Model: BRAVO-S33-Miguel Caballero for ballistic and fragmentation testing. C.I.A. Miguel Caballero S.A.S. instructed Element Materials Technology Wichita to conduct abbreviated NIJ 0101.06 P-BFS, NIJ 0101.06 BL and STANAG 2920 testing per the provided Performance Verification Test Plan.

2. Threats and Instrumentation

2.1. Threats

- Speer .357 Sig
- Speer .44 Magnum
- STANAG 2920 1.1g FSP

2.2 Instrumentation

Projectile velocity measurements were obtained using Oehler Research Model 57 infrared screens with Oehler Research Model 34 chronographs. Clay calibration and BFS measurements were obtained using a calibrated digital depth gauge.

3. Details of Test

The objective of this project was to conduct ballistic testing on ambient and wet armor samples per NIJ 0101.06, threat 1 and 2, and STANAG 2920 fragmentation testing.

Conditioning, velocity, range length and results are noted on each data sheet. The ballistic samples were affixed to Roma clay using elastic straps. The samples for fragmentation testing were inserted into our air/hydraulic frame and clamp fixture. The witness materials were inspected after each impact for penetration and BFS/penetration measurements.

Digital photographs and digital video were not requested for this testing.

Please refer to the data sheets below **MIG24010 (1-14)** for testing results.

Best Regards,



Nick Zerger
Operations Manager

element

Element Materials Technology

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Phone: (316) 832-1600
www.element.com

FLEXIBLE ARMOR:

P-BFS TEST

Date Received: April 16, 2024
Via: DHL
Returned Via: DHL

Record No.: MIG24010-1
Test Date: April 23, 2024
Customer: Miguel Caballero

Test Conditions

Temperature:	68.6	ºC
Humidity:	50	%
Clay Block No.:	8	
Clay Temp.:	39.1	ºC
Drop Average:	20.21	mm
Test Standard:	Modified / Abbreviated NIJ 0101.06, July 2008 NTMD 0225-A5	
Threat Level:	IIIA	
Condition:	New / Wet	

Range 2

Muzzle to Screen 1:	1.74 m
Screen 1 - 4:	1.52 m
Screen 4 - Target:	1.74 m
Midpoint to Target:	2.50 m
Target to Witness:	0 cm
Barrel Length:	25.40 cm
Clay Block:	13.97 cm

Sample Tested Description		Shot / Projectile Description					Chronograph		Test Results
Manufacturer:	C.I.A Miguel Caballero S.A.S	Shot	Shot	Degree	Caliber	Bullet	TIME	VELOCITY	Perforation
Model No.:	BRAVO S33-Miguel Caballero	No.	Location	Obliquity		Weight (gr.) / Type	sx-5	m/s	BFS (mm)
Serial No.:	608735	1	1	0°			334.7	455.3	26.58
Lot No.:	T0709224201531001	2	2	0°			341.8	445.9	32.73
Male / Female:	Female	3	3	0°	.357 Sig.	125 / TMJ	340.5	447.6	30.63
Front / Back:	Front	*4	4	30°			338.6	450.1	No Perforation
Size:	S	*5	5	45°			339.1	449.4	No Perforation
Weight (kg):	0.943	6	6	0°			340.8	447.2	No Perforation

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Notes:

•Panel tested in cover only, no outer carrier provided
•Shot Nos. 1-6 tested non-planar (with clay build-up/mound)
*Shot Nos. 4 & 5 impacted on bust cup seam/stitch with the intent to exploit a potential weakness

Test Round Description:

Speer .357 Sig, 125 gr. (8.1 g) TMJ (4362)
Target Velocity: 448 +/- 9.1 m/s

Sample Description:

•Customer Proprietary

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Project Manager: Wilson
Range Tech(s): Cisneros Zerger

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FLEXIBLE ARMOR:

P-BFS TEST

Date Received: April 16, 2024
Via: DHL
Returned Via: DHL

Record No.: MIG24010-2
Test Date: April 23, 2024
Customer: Miguel Caballero

Test Conditions

Temperature:	68.6	ºC
Humidity:	49	%
Clay Block No.:	8	
Clay Temp.:	38.7	ºC
Drop Average:	20.61	mm
Test Standard:	Modified / Abbreviated NIJ 0101.06, July 2008 NTMD 0225-A5	
Threat Level:	IIIA	
Condition:	New / Wet	

Range 2

Muzzle to Screen 1:	1.74 m
Screen 1 - 4:	1.52 m
Screen 4 - Target:	1.74 m
Midpoint to Target:	2.50 m
Target to Witness:	0 cm
Barrel Length:	25.40 cm
Clay Block:	13.97 cm

Sample Tested Description		Shot / Projectile Description					Chronograph		Test Results
Manufacturer:	C.I.A Miguel Caballero S.A.S	Shot	Shot	Degree	Caliber	Bullet	TIME	VELOCITY	Perforation
Model No.:	BRAVO S33-Miguel Caballero	No.	Location	Obliquity		Weight (gr.) / Type	sx-5	m/s	BFS (mm)
Serial No.:	608735	1	1	0°			343.8	443.3	27.34
Lot No.:	T0709224201531001	2	2	0°			339.5	448.9	25.01
Male / Female:	Female	3	3	0°	.357 Sig.	125 / TMJ	337.6	451.4	30.25
Front / Back:	Back	4	4	30°			342.5	445.0	No Perforation
Size:	S	5	5	45°			339.8	448.5	No Perforation
Weight (kg):	0.748	6	6	0°			343.8	443.3	No Perforation
							.		

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Notes:

•Panel tested in cover only, no outer carrier provided

Test Round Description:

Speer .357 Sig, 125 gr. (8.1 g) TMJ (4362)
Target Velocity: 448 +/- 9.1 m/s

Sample Description:

•Customer Proprietary

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Project Manager: Wilson
Range Tech(s): Cisneros Zerger

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FLEXIBLE ARMOR:

P-BFS TEST

Date Received: April 16, 2024
Via: DHL
Returned Via: DHL

Record No.: MIG24010-3
Test Date: April 23, 2024
Customer: Miguel Caballero

Test Conditions

Temperature:	68.8	ºC
Humidity:	49	%
Clay Block No.:	8	
Clay Temp.:	38.2	ºC
Drop Average:	20.16	mm
Test Standard:	Modified / Abbreviated NIJ 0101.06, July 2008 NTMD 0225-A5	
Threat Level:	IIIA	
Condition:	New / Wet	

Range 2

Muzzle to Screen 1:	1.74	m
Screen 1 - 4:	1.52	m
Screen 4 - Target:	1.74	m
Midpoint to Target:	2.50	m
Target to Witness:	0	cm
Barrel Length:	35.56	cm
Clay Block:	13.97	cm

Sample Tested Description		Shot / Projectile Description					Chronograph		Test Results
Manufacturer:	C.I.A Miguel Caballero S.A.S	Shot	Shot	Degree	Caliber	Bullet	TIME	VELOCITY	Perforation
Model No.:	BRAVO S33-Miguel Caballero	No.	Location	Obliquity		Weight (gr.) / Type	sx-5	m/s	BFS (mm)
Serial No.:	608810	1	1	0°			348.3	437.6	36.87
Lot No.:	T0709224201531001	2	2	0°			355.5	428.7	40.69
Male / Female:	Female	3	3	0°	.44 Mag.	240 / JHP	340.9	447.1	43.62
Front / Back:	Front	*4	4	30°			356.0	428.1	No Perforation
Size:	M	*5	5	45°			354.2	430.3	No Perforation
Weight (kg):	1.099	6	6	0°			348.6	437.2	No Perforation

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Notes:

•Panel tested in cover only, no outer carrier provided
•Shot Nos. 1-6 tested non-planar (with clay build-up/mound)
*Shot Nos. 4 & 5 impacted on bust cup seam/stitch with the intent to exploit a potential weakness

Test Round Description:

Speer .44 Magnum, 240 gr. (15.55g) JHP (4453 or 4736)
Target Velocity: 436 +/- 9.1 m/s

Sample Description:

•Customer Proprietary

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
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Project Manager: Wilson
Range Tech(s): Cisneros Zerger

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FLEXIBLE ARMOR:

P-BFS TEST

Date Received: April 16, 2024
Via: DHL
Returned Via: DHL

Record No.: MIG24010-4
Test Date: April 23, 2024
Customer: Miguel Caballero

Test Conditions

Temperature:	69.5	ºC
Humidity:	49	%
Clay Block No.:	8	
Clay Temp.:	37.7	ºC
Drop Average:	19.88	mm
Test Standard:	Modified / Abbreviated NIJ 0101.06, July 2008 NTMD 0225-A5	
Threat Level:	IIIA	
Condition:	New / Wet	

Range 2

Muzzle to Screen 1:	1.74	m
Screen 1 - 4:	1.52	m
Screen 4 - Target:	1.74	m
Midpoint to Target:	2.50	m
Target to Witness:	0	cm
Barrel Length:	35.56	cm
Clay Block:	13.97	cm

Sample Tested Description		Shot / Projectile Description					Chronograph		Test Results
Manufacturer:	C.I.A Miguel Caballero S.A.S	Shot	Shot	Degree	Caliber	Bullet	TIME	VELOCITY	Perforation
Model No.:	BRAVO S33-Miguel Caballero	No.	Location	Obliquity		Weight (gr.) / Type	sx-5	m/s	BFS (mm)
Serial No.:	608810	1	1	0°			355.6	428.6	39.59
Lot No.:	T0709224201531001	2	2	0°			354.1	430.4	34.77
Male / Female:	Female	3	3	0°	.44 Mag.	240 / JHP	348.0	437.9	40.00
Front / Back:	Back	4	4	30°			342.0	445.6	No Perforation
Size:	M	5	5	45°			340.1	448.1	No Perforation
Weight (kg):	0.845	6	6	0°			350.5	434.8	No Perforation

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Notes:

•Panel tested in cover only, no outer carrier provided

Test Round Description:

Speer .44 Magnum, 240 gr. (15.55g) JHP (4453 or 4736)
Target Velocity: 436 +/- 9.1 m/s

Sample Description:

•Customer Proprietary

OFFICIAL ELEMENT TEST CERTIFICATE

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Operations Manager

Project Manager: Wilson
Range Tech(s): Cisneros Zerger

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FLEXIBLE ARMOR:

BALLISTIC LIMIT TEST

Date Received:	April 16, 2024	Record No.:	MIG24010-5
Via:	DHL	Test Date:	April 23, 2024
Returned Via:	DHL	Customer:	C.I.A. Miguel Caballero S.A.S.

Sample Tested

Manufacturer:	C.I.A. Miguel Caballero S.A.S.
Model No.:	BRAVO S33 - Miguel Caballero
Serial No.:	608809
Lot No.:	T0709224201531001
Male / Female:	Female
Front / Back:	Front
Size:	M
Weight:	1.098

Threat

Caliber:	.44 Mag.
Weight / Type:	240 / JHP
Obliquity:	0°
Yaw:	≤ 5°

Test Standard:

Modified / Abbreviated NIJ 0101.06, July 2008
NTMD 0225-A5
Threat Level: IIIA
Condition: New / Dry

Range 2

Muzzle to Screen 1:	1.74 m
Screen 1 - 4:	1.52 m
Screen 2 - 3:	1.25 m
Screen 4 - Target:	1.74 m
Midpoint to Target:	2.50 m
Target to Witness:	0 cm
Clay Block	13.97 cm
Temperature:	21.1 ºC
Humidity:	47 %

SHOT INFORMATION		CHRONOGRAPHS 1 - 4		CHRONOGRAPHS 2 - 3		AVERAGE	LOSS	INSTRUMENT		TEST RESULTS	
SHOT No.	POWDER CHARGE	TIME sx-5	VELOCITY m/s	TIME sx-5	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	Notes	Shot Included	Complete - C Partial - P
1	16.3	354.2	430.3	288.8	431.1	430.7	0	430.7		N	P
2	17.8	325.6	468.1	265.6	468.8	468.4	0	468.4		N	P
3	19.3	303.7	501.8	247.6	502.8	502.3	0	502.3		Y	P
4	20.8	285.5	533.8	232.8	534.8	534.3	0	534.3		N	C
5	19.8	300.0	508.0	244.6	509.0	508.5	0	508.5		Y	P
6	20.5	290.5	524.6	236.8	525.8	525.2	0	525.2		N	C
7	20.0	295.2	516.3	240.7	517.2	516.8	0	516.8		Y	C
8	19.5	300.0	508.0	244.6	509.0	508.5	0	508.5		Y	P
9	20.0	297.1	513.0	242.2	514.0	513.5	0	513.5		Y	C
10	19.5	303.1	502.8	247.1	503.8	503.3	0	503.3		Y	C
			-		-	-	0	#VALUE!			
			-		-	-	0	#VALUE!			

Test Round Description:
Speer .44 Magnum, 240 gr. (15.55g) JHP (4453 or 4736)
Test Velocity: 435.8 +/- 9.1 m/s (1430 +/- 30 ft/s)

V50 VELOCITY m/s	HIGH PARTIAL	LOW COMPLETE	RANGE OF RESULTS	RANGE OF MIXED RESULTS
508.8	**508.5**	**503.3**	**14.4**	**5.2**

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Notes:
•Panel tested as received in cover only, no outer carrier provided.
•Due to sample size and shot limitations, only 10 shots could be achieved.

Clay Block Calibration:

Clay Block No.:	1	
Drop Average:	19.21	mm
Clay Temp.:	36.8	ºC

V50 Calculation :
V50 based on 10 fair impacts using (3) partial and (3) complete penetrations with a range of results at or below 45.7 m/s (150 ft/s).

Sample Description:
•Customer Proprietary

Range Tech(s): Wilson Cisneros

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Element Materials Technology

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FLEXIBLE ARMOR:

BALLISTIC LIMIT TEST

Date Received:	April 16, 2024	Record No.:	MIG24010-6
Via:	DHL	Test Date:	April 23, 2024
Returned Via:	DHL	Customer:	C.I.A. Miguel Caballero S.A.S.

Sample Tested

Manufacturer:	C.I.A. Miguel Caballero S.A.S.
Model No.:	BRAVO S33 - Miguel Caballero
Serial No.:	608809
Lot No.:	T0709224201531001
Male / Female:	Female
Front / Back:	Back
Size:	M
Weight:	0.843

Threat

Caliber:	.44 Mag.
Weight / Type:	240 / JHP
Obliquity:	0°
Yaw:	≤ 5°

Test Standard:

Modified / Abbreviated NIJ 0101.06, July 2008
NTMD 0225-A5
Threat Level: IIIA
Condition: New / Dry

Range 2

Muzzle to Screen 1:	1.74 m
Screen 1 - 4:	1.52 m
Screen 2 - 3:	1.25 m
Screen 4 - Target:	1.74 m
Midpoint to Target:	2.50 m
Target to Witness:	0 cm
Clay Block	13.97 cm
Temperature:	21.1 ºC
Humidity:	47 %

SHOT INFORMATION		CHRONOGRAPHS 1 - 4		CHRONOGRAPHS 2 - 3		AVERAGE	LOSS	INSTRUMENT		TEST RESULTS	
SHOT No.	POWDER CHARGE	TIME sx-5	VELOCITY m/s	TIME sx-5	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	Notes	Shot Included	Complete - C Partial - P
1	16.2	343.1	444.2	279.8	445.0	444.6	0	444.6		N	P
2	17.7	318.4	478.6	259.6	479.6	479.1	0	479.1		N	P
3	19.2	304.7	500.2	248.5	501.0	500.6	0	500.6		N	P
4	20.7	286.3	532.3	233.4	533.4	532.9	0	532.9		N	C
5	19.7	294.3	517.8	240.0	518.8	518.3	0	518.3		Y	C
6	18.7	311.9	488.6	254.3	489.6	489.1	0	489.1		N	P
7	19.4	300.7	506.8	245.1	508.0	507.4	0	507.4		Y	P
8	20.1	300.2	507.7	245.5	507.1	507.4	0	507.4		Y	P
9	20.8	292.9	520.3	237.8	523.5	521.9	0	521.9		Y	C
10	20.1	287.9	529.4	234.7	530.5	529.9	0	529.9		Y	C
11	19.4	302.5	503.8	246.7	504.7	504.2	0	504.2		Y	P
			-		-	-	0	#VALUE!			

Test Round Description:
Speer .44 Magnum, 240 gr. (15.55g) JHP (4453 or 4736)
Test Velocity: 435.8 +/- 9.1 m/s (1430 +/- 30 ft/s)

V50 VELOCITY m/s	HIGH PARTIAL	LOW COMPLETE	RANGE OF RESULTS	RANGE OF MIXED RESULTS
	507.4	**518.3**	**25.7**	**-10.9**
514.9				

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Notes:
•Panel tested as received in cover only, no outer carrier provided.
•Due to sample size and shot limitations, only 11 shots could be achieved.

Clay Block Calibration:

Clay Block No.:	1	
Drop Average:	19.12	mm
Clay Temp.:	35.1	ºC

V50 Calculation :
V50 based on 10 fair impacts using (3) partial and (3) complete penetrations with a range of results at or below 45.7 m/s (150 ft/s).

Sample Description:
•Customer Proprietary

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Range Tech(s): Cisneros Wilson

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FLEXIBLE ARMOR:

BALLISTIC LIMIT TEST

Date Received: April 16, 2024
Via: DHL
Returned Via: DHL

Record No.: MIG24010-7
Test Date: April 23, 2024
Customer: C.I.A. Miguel Caballero S.A.S.

Sample Tested

Manufacturer: C.I.A. Miguel Caballero S.A.S.
Model No.: BRAVO S33 - Miguel Caballero
Serial No.: 608870
Lot No.: T0709224201531001
Male / Female: Female
Front / Back: Front
Size: L
Weight: 1.261

Threat

Caliber: .44 Mag.
Weight / Type: 240 / JHP
Obliquity: 0°
Yaw: ≤ 5°

Test Standard:

Modified / Abbreviated NIJ 0101.06, July 2008
NTMD 0225-A5
Threat Level: IIIA
Condition: New / Dry

Range 2

Muzzle to Screen 1:	1.74	m
Screen 1 - 4:	1.52	m
Screen 2 - 3:	1.25	m
Screen 4 - Target:	1.74	m
Midpoint to Target:	2.50	m
Target to Witness:	0	cm
Clay Block	13.97	cm
Temperature:	18.9	ºC
Humidity:	48	%

SHOT INFORMATION		CHRONOGRAPHS 1 - 4		CHRONOGRAPHS 2 - 3		AVERAGE	LOSS	INSTRUMENT		TEST RESULTS	
SHOT No.	POWDER CHARGE	TIME sx-5	VELOCITY m/s	TIME sx-5	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	Notes	Shot Included	Complete - C Partial - P
1	16.2	343.6	443.5	280.2	444.3	443.9	0	443.9		N	P
2	17.7	319.2	477.4	260.3	478.3	477.9	0	477.9		Y	C
3	16.7	329.5	462.5	268.6	463.5	463.0	0	463.0		N	P
4	17.2	325.9	467.6	265.8	468.4	468.0	0	468.0		Y	C
5	16.8	331.9	459.2	270.7	459.9	459.5	0	459.5		N	P
6	17.1	328.1	464.5	267.5	465.4	465.0	0	465.0		N	P
7	17.5	323.2	471.5	263.5	472.5	472.0	0	472.0		N	P
8	18.0	314.9	484.0	256.7	485.0	484.5	0	484.5		Y	P
9	18.5	309.5	492.4	252.3	493.5	492.9	0	492.9		Y	P
10	19.0	301.6	505.3	245.9	506.3	505.8	0	505.8		N	C
11	18.5	309.2	492.9	252.2	493.7	493.3	0	493.3		Y	C
12	18.0	315.4	483.2	257.2	484.1	483.6	0	483.6		Y	P

Test Round Description:

Speer .44 Magnum, 240 gr. (15.55g) JHP (4453 or 4736)
Test Velocity: 435.8 +/- 9.1 m/s (1430 +/- 30 ft/s)

V50 VELOCITY m/s	HIGH PARTIAL	LOW COMPLETE	RANGE OF RESULTS	RANGE OF MIXED RESULTS
483.4	**492.9**	**468.0**	**25.3**	**24.9**

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Notes:

•Panel tested as received in cover only, no outer carrier provided.

Clay Block Calibration:

Clay Block No.: 1
Drop Average: 19.19 mm
Clay Temp.: 35.0 ºC

V50 Calculation :

V50 based on 10 fair impacts using (3) partial and (3) complete penetrations with a range of results at or below 45.7 m/s (150 ft/s).

Sample Description:

•Customer Proprietary

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Range Tech(s): Cisneros Wilson

Element Materials Technology

7447 W. 33rd St. N.
Wichita, KS 67205 U.S.A.
Phone: (316) 832-1600
www.element.com

FLEXIBLE ARMOR:

BALLISTIC LIMIT TEST

Date Received: April 16, 2024
Via: DHL
Returned Via: DHL

Record No.: MIG24010-8
Test Date: April 23, 2024
Customer: C.I.A. Miguel Caballero S.A.S.

Sample Tested

Manufacturer: C.I.A. Miguel Caballero S.A.S.
Model No.: BRAVO S33 - Miguel Caballero
Serial No.: 608870
Lot No.: T0709224201531001
Male / Female: Female
Front / Back: Back
Size: L
Weight: 0.930

Threat

Caliber: .44 Mag.
Weight / Type: 240 / JHP
Obliquity: 0°
Yaw: ≤ 5°

Test Standard:

Modified / Abbreviated NIJ 0101.06, July 2008
NTMD 0225-A5
Threat Level: IIIA
Condition: New / Dry

Range 2

Muzzle to Screen 1:	1.74	m
Screen 1 - 4:	1.52	m
Screen 2 - 3:	1.25	m
Screen 4 - Target:	1.74	m
Midpoint to Target:	2.50	m
Target to Witness:	0	cm
Clay Block	13.97	cm
Temperature:	21.9	ºC
Humidity:	46	%

SHOT INFORMATION		CHRONOGRAPHS 1 - 4		CHRONOGRAPHS 2 - 3		AVERAGE	LOSS	INSTRUMENT		TEST RESULTS	
SHOT No.	POWDER CHARGE	TIME sx-5	VELOCITY m/s	TIME sx-5	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	Notes	Shot Included	Complete - C Partial - P
1	16.2	340.9	447.1	278.0	447.8	447.4	0	447.4		N	P
2	17.7	322.5	472.6	262.9	473.6	473.1	0	473.1		N	P
3	19.2	301.1	506.1	245.6	506.9	506.5	0	506.5		Y	C
4	18.7	303.0	503.0	247.0	504.0	503.5	0	503.5		Y	C
5	18.0	313.6	486.0	255.6	487.1	486.5	0	486.5		N	P
6	18.6	307.6	495.4	251.7	494.6	495.0	0	495.0		Y	P
7	19.2	304.6	500.3	247.4	503.2	501.8	0	501.8		Y	P
8	19.7	296.5	514.0	241.7	515.1	514.5	0	514.5		N	C
9	19.2	301.9	504.8	246.2	505.7	505.2	0	505.2		Y	C
10	18.6	310.7	490.5	253.3	491.5	491.0	0	491.0		N	P
11	19.2	305.3	499.2	248.9	500.2	499.7	0	499.7		Y	P
			-		-	-	0	#VALUE!			

Test Round Description:
Speer .44 Magnum, 240 gr. (15.55g) JHP (4453 or 4736)
Test Velocity: 435.8 +/- 9.1 m/s (1430 +/- 30 ft/s)

V50 VELOCITY m/s	HIGH PARTIAL	LOW COMPLETE	RANGE OF RESULTS	RANGE OF MIXED RESULTS
	501.8	**503.5**	**11.5**	**-1.7**
502.0				

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Notes:
•Panel tested as received in cover only, no outer carrier provided.
•Due to sample size and shot limitations, only 11 shots could be achieved.

Clay Block Calibration:
Clay Block No.: 1
Drop Average: 17.11 mm
Clay Temp.: 33.9 ºC

V50 Calculation :
V50 based on 10 fair impacts using (3) partial and (3) complete penetrations with a range of results at or below 45.7 m/s (150 ft/s).

Sample Description:
•Customer Proprietary

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Range Tech(s): Cisneros Wilson

Element Materials Technology

7447 W. 33rd St. N.
Wichita, KS 67205 U.S.A.
Phone: (316) 832-1600
www.element.com

FLEXIBLE ARMOR:

BALLISTIC LIMIT TEST

Date Received:	April 16, 2024	Record No.:	MIG24010-9
Via:	DHL	Test Date:	April 23, 2024
Returned Via:	DHL	Customer:	C.I.A. Miguel Caballero S.A.S.

Sample Tested

Manufacturer:	C.I.A. Miguel Caballero S.A.S.
Model No.:	BRAVO S33 - Miguel Caballero
Serial No.:	608736
Lot No.:	T0709224201531001
Male / Female:	Female
Front / Back:	Front
Size:	S
Weight:	0.939

Threat

Caliber:	.357 Sig.
Weight / Type:	125 / TMJ
Obliquity:	0°
Yaw:	≤ 5°

Test Standard:

Modified / Abbreviated NIJ 0101.06, July 2008
NTMD 0225-A5

Threat Level:	IIIA
Condition:	New / Dry

Range 2

Muzzle to Screen 1:	1.74 m
Screen 1 - 4:	1.52 m
Screen 2 - 3:	1.25 m
Screen 4 - Target:	1.74 m
Midpoint to Target:	2.50 m
Target to Witness:	0 cm
Clay Block	13.97 cm
Temperature:	22.0 ºC
Humidity:	41 %

SHOT INFORMATION		CHRONOGRAPHS 1 - 4		CHRONOGRAPHS 2 - 3		AVERAGE	LOSS	INSTRUMENT		TEST RESULTS	
SHOT No.	POWDER CHARGE	TIME sx-5	VELOCITY m/s	TIME sx-5	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	Notes	Shot Included	Complete - C Partial - P
1	7.4	342.3	445.2	279.2	445.9	445.6	0	445.6		N	P
2	8.2	317.3	480.3	258.9	480.9	480.6	0	480.6		N	P
3	9.0	301.0	506.3	245.5	507.1	506.7	0	506.7		N	P
4	9.8	281.2	542.0	229.3	543.0	542.5	0	542.5		N	P
5	10.6	273.7	556.8	223.2	557.8	557.3	0	557.3		Y	P
6	11.4	265.3	574.4	216.3	575.6	575.0	0	575.0		N	C
7	10.8	269.8	564.9	220.0	565.9	565.4	0	565.4		Y	C
8	10.2	278.1	548.0	226.8	548.9	548.5	0	548.5		Y	P
9	10.6	276.0	552.2	225.1	553.1	552.6	0	552.6		Y	C
10	10.3	276.9	550.4	225.8	551.4	550.9	0	550.9		Y	C
11	9.9	286.8	531.4	233.9	532.3	531.8	0	531.8		N	P
12	10.3	279.4	545.5	227.8	546.5	546.0	0	546.0		Y	P

Test Round Description:
Speer .357 Sig, 125 gr. (8.1 g) TMJ (4362)
Test Velocity: 448.1 +/- 9.1 m/s (1470 +/- 30 ft/s)

V50 VELOCITY m/s	HIGH PARTIAL	LOW COMPLETE	RANGE OF RESULTS	RANGE OF MIXED RESULTS
553.4	**557.3**	**550.9**	**19.4**	**6.4**

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Notes:
•Panel tested as received in cover only, no outer carrier provided.

Clay Block Calibration:

Clay Block No.:	3	
Drop Average:	17.30	mm
Clay Temp.:	35.3	ºC

V50 Calculation :
V50 based on 10 fair impacts using (3) partial and (3) complete penetrations with a range of results at or below 45.7 m/s (150 ft/s).

Sample Description:
•Customer Proprietary

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Range Tech(s): Cisneros Wilson

Element Materials Technology

7447 W. 33rd St. N.
Wichita, KS 67205 U.S.A.
Phone: (316) 832-1600
www.element.com

FLEXIBLE ARMOR:

BALLISTIC LIMIT TEST

Date Received: April 16, 2024
Via: DHL
Returned Via: DHL

Record No.: MIG24010-10
Test Date: April 24, 2024
Customer: C.I.A. Miguel Caballero S.A.S.

Sample Tested

Manufacturer: C.I.A. Miguel Caballero S.A.S.
Model No.: BRAVO S33 - Miguel Caballero
Serial No.: 608736
Lot No.: T0709224201531001
Male / Female: Female
Front / Back: Back
Size: S
Weight: 0.748

Threat

Caliber: .357 Sig.
Weight / Type: 125 / TMJ
Obliquity: 0°
Yaw: ≤ 5°

Test Standard:

Modified / Abbreviated NIJ 0101.06, July 2008
NTMD 0225-A5
Threat Level: IIIA
Condition: New / Dry

Range 2

Muzzle to Screen 1:	1.74 m
Screen 1 - 4:	1.52 m
Screen 2 - 3:	1.25 m
Screen 4 - Target:	1.74 m
Midpoint to Target:	2.50 m
Target to Witness:	0 cm
Clay Block	13.97 cm
Temperature:	21.9 ºC
Humidity:	54 %

SHOT INFORMATION		CHRONOGRAPHS 1 - 4		CHRONOGRAPHS 2 - 3		AVERAGE	LOSS	INSTRUMENT		TEST RESULTS	
SHOT No.	POWDER CHARGE	TIME sx-5	VELOCITY m/s	TIME sx-5	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	Notes	Shot Included	Complete - C Partial - P
1	7.4	342.4	445.1	279.3	445.8	445.4	0	445.4		N	P
2	8.2	323.2	471.5	263.6	472.3	471.9	0	471.9		N	P
3	9.0	298.5	510.6	243.5	511.3	510.9	0	510.9		N	P
4	9.8	287.6	529.9	234.5	530.9	530.4	0	530.4		N	P
5	10.6	277.3	549.6	226.1	550.6	550.1	0	550.1		Y	C
6	10.1	284.8	535.1	232.3	535.9	535.5	0	535.5		N	P
7	10.5	278.1	548.0	226.8	548.9	548.5	0	548.5		Y	C
8	10.2	280.7	542.9	228.9	543.9	543.4	0	543.4		N	P
9	10.4	288.0	529.2	234.9	530.0	529.6	0	529.6		N	P
10	10.8	277.6	549.0	226.4	549.9	549.5	0	549.5		N	P
11	11.2	270.3	563.8	220.4	564.9	564.4	0	564.4		Y	P
12	11.6	262.2	581.2	213.9	582.0	581.6	0	581.6		Y	P

Test Round Description:

Speer .357 Sig, 125 gr. (8.1 g) TMJ (4362)
Test Velocity: 448.1 +/- 9.1 m/s (1470 +/- 30 ft/s)

V50 VELOCITY m/s	HIGH PARTIAL	LOW COMPLETE	RANGE OF RESULTS	RANGE OF MIXED RESULTS
	581.6	**548.5**	**33.2**	**33.2**
561.1				

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Notes:

•Panel tested as received in cover only, no outer carrier provided.

Clay Block Calibration:

Clay Block No.: 3
Drop Average: 17.75 mm
Clay Temp.: 35.6 ºC

V50 Calculation :

V50 based on 10 fair impacts using (2) partial and (2) complete penetrations with a range of results at or below 45.7 m/s (150 ft/s).

Sample Description:

•Customer Proprietary

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Range Tech(s): Cisneros Wilson

Element Materials Technology

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Phone: (316) 832-1600
www.element.com

FLEXIBLE ARMOR:

BALLISTIC LIMIT TEST

Date Received: April 16, 2024
Via: DHL
Returned Via: DHL

Record No.: MIG24010-11
Test Date: April 24, 2024
Customer: C.I.A. Miguel Caballero S.A.S.

Sample Tested

Manufacturer: C.I.A. Miguel Caballero S.A.S.
Model No.: BRAVO S33 - Miguel Caballero
Serial No.: 608813
Lot No.: T0709224201531001
Male / Female: Female
Front / Back: Front
Size: M
Weight: 1.099

Threat

Caliber: .357 Sig.
Weight / Type: 125 / TMJ
Obliquity: 0°
Yaw: ≤ 5°

Test Standard:

Modified / Abbreviated NIJ 0101.06, July 2008
NTMD 0225-A5
Threat Level: IIIA
Condition: New / Dry

Range 2

Muzzle to Screen 1:	1.74 m
Screen 1 - 4:	1.52 m
Screen 2 - 3:	1.25 m
Screen 4 - Target:	1.74 m
Midpoint to Target:	2.50 m
Target to Witness:	0 cm
Clay Block	13.97 cm
Temperature:	20.4 ºC
Humidity:	42 %

SHOT INFORMATION		CHRONOGRAPHS 1 - 4		CHRONOGRAPHS 2 - 3		AVERAGE	LOSS	INSTRUMENT		TEST RESULTS	
SHOT No.	POWDER CHARGE	TIME sx-5	VELOCITY m/s	TIME sx-5	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	Notes	Shot Included	Complete - C Partial - P
1	7.4	342.6	444.8	279.5	445.4	445.1	0	445.1		N	P
2	8.2	314.6	484.4	256.6	485.2	484.8	0	484.8		N	P
3	9.0	296.6	513.8	241.9	514.7	514.2	0	514.2		N	P
4	9.8	282.9	538.7	230.7	539.7	539.2	0	539.2		Y	C
5	9.4	291.6	522.6	237.9	523.3	523.0	0	523.0		N	P
6	9.7	289.1	527.2	235.8	528.0	527.6	0	527.6		Y	P
7	10.1	284.8	535.1	232.3	535.9	535.5	0	535.5		Y	C
8	9.7	293.5	519.3	239.4	520.1	519.7	0	519.7		N	P
9	10.1	285.8	533.2	233.1	534.1	533.7	0	533.7		Y	P
10	10.5	279.6	545.1	228.0	546.1	545.6	0	545.6		N	C
11	10.1	281.5	541.4	229.5	542.5	541.9	0	541.9		Y	C
12	9.7	287.7	529.7	234.6	530.7	530.2	0	530.2		Y	P

Test Round Description:
Speer .357 Sig, 125 gr. (8.1 g) TMJ (4362)
Test Velocity: 448.1 +/- 9.1 m/s (1470 +/- 30 ft/s)

V50 VELOCITY m/s	HIGH PARTIAL	LOW COMPLETE	RANGE OF RESULTS	RANGE OF MIXED RESULTS
534.7	**533.7**	**535.5**	**14.4**	**-1.9**

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Notes:
•Panel tested as received in cover only, no outer carrier provided.

Clay Block Calibration:
Clay Block No.: 3
Drop Average: 19.19 mm
Clay Temp.: 35.8 ºC

V50 Calculation :
V50 based on 10 fair impacts using (3) partial and (3) complete penetrations with a range of results at or below 45.7 m/s (150 ft/s).

Sample Description:
•Customer Proprietary

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Range Tech(s): Cisneros Wilson

Element Materials Technology

7447 W. 33rd St. N.
Wichita, KS 67205 U.S.A.
Phone: (316) 832-1600
www.element.com

FLEXIBLE ARMOR:

BALLISTIC LIMIT TEST

Date Received:	April 16, 2024	Record No.:	MIG24010-12
Via:	DHL	Test Date:	April 24, 2024
Returned Via:	DHL	Customer:	C.I.A. Miguel Caballero S.A.S.

Sample Tested

Manufacturer:	C.I.A. Miguel Caballero S.A.S.
Model No.:	BRAVO S33 - Miguel Caballero
Serial No.:	608813
Lot No.:	T0709224201531001
Male / Female:	Female
Front / Back:	Back
Size:	M
Weight:	0.845

Threat

Caliber:	.357 Sig.
Weight / Type:	125 / TMJ
Obliquity:	0°
Yaw:	≤ 5°

Test Standard:

Modified / Abbreviated NIJ 0101.06, July 2008
NTMD 0225-A5

Threat Level:	IIIA
Condition:	New / Dry

Range 2

Muzzle to Screen 1:	1.74	m
Screen 1 - 4:	1.52	m
Screen 2 - 3:	1.25	m
Screen 4 - Target:	1.74	m
Midpoint to Target:	2.50	m
Target to Witness:	0	cm
Clay Block	13.97	cm
Temperature:	20.4	ºC
Humidity:	42	%

SHOT INFORMATION		CHRONOGRAPHS 1 - 4		CHRONOGRAPHS 2 - 3		AVERAGE	LOSS	INSTRUMENT		TEST RESULTS	
SHOT No.	POWDER CHARGE	TIME sx-5	VELOCITY m/s	TIME sx-5	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	VELOCITY m/s	Notes	Shot Included	Complete - C Partial - P
1	7.4	339.5	448.9	276.9	449.6	449.3	0	449.3		N	P
2	8.2	321.7	473.7	262.4	474.5	474.1	0	474.1		N	P
3	9.0	299.4	509.0	244.2	509.8	509.4	0	509.4		N	P
4	9.8	288.7	527.9	235.5	528.7	528.3	0	528.3		N	P
5	10.6	278.7	546.8	227.4	547.5	547.2	0	547.2		N	P
6	11.4	266.3	572.3	217.2	573.2	572.7	0	572.7		Y	P
7	12.2	253.8	600.5	207.0	601.4	601.0	0	601.0		Y	C
8	11.8	260.4	585.3	212.4	586.2	585.7	0	585.7		Y	C
9	11.4	269.2	566.1	219.6	566.9	566.5	0	566.5		N	P
10	11.8	263.2	579.0	214.7	579.9	579.5	0	579.5		Y	P
11	12.2	255.7	596.0	208.6	596.8	596.4	0	596.4		Y	C
12	11.8	260.6	584.8	212.5	585.9	585.3	0	585.3		Y	P

Test Round Description:

Speer .357 Sig, 125 gr. (8.1 g) TMJ (4362)

Test Velocity: 448.1 +/- 9.1 m/s (1470 +/- 30 ft/s)

V50 VELOCITY m/s	HIGH PARTIAL	LOW COMPLETE	RANGE OF RESULTS	RANGE OF MIXED RESULTS
586.8	**585.3**	**585.7**	**28.2**	**-0.4**

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Notes:

•Panel tested as received in cover only, no outer carrier provided.

Clay Block Calibration:

Clay Block No.:	3	
Drop Average:	17.37	mm
Clay Temp.:	35.6	ºC

V50 Calculation :

V50 based on 10 fair impacts using (3) partial and (3) complete penetrations with a range of results at or below 45.7 m/s (150 ft/s).

Sample Description:

•Customer Proprietary

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Range Tech(s): Cisneros Wilson

Element Materials Technology
V50 BALLISTIC LIMIT TEST

Date Received: April 16, 2024
Via: DHL
Returned Via: DHL

Record No.: MIG24010-13
Test Date: April 24, 2024
Customer: Miguel Caballero

Sample Tested
Manufacturer: C.I.A Miguel Caballero S.A.S
Model No.: BRAVO S33-Miguel Caballero
Size: XS
Serial No.: 608684
Lot No.: T0709224201531001
Male / Female: Female
Front / Back Front
Weight (kg): 0.794
Conditioning: Ambient

Threat
Projectile: Fragment Simulating Projectile
Type: Type 1 (30 +/- 2 HRC / Non-Tumbled)
Weight: 1.1 g (17 gr.)
Powder: Bullseye
Barrel (cm): 60.96
Obliquity: 0°
Yaw: ≤ 5°

Test Standard
STANAG 2920 Edition 3,
NATO STANDARD AEP-2920
Edition A, Version 2
September 2016

Range 2
Muzzle to Screen 1: 1.12 m
Screen 1 - 4: 1.52 m
Screen 2 - 3: 1.24 m
Screen 4 - Target: 1.70 m
Target to Witness: 15 cm
Midpoint to Target: 2.46 m
Witness: 2024-T3 Aluminum
Range Temperature: 20.7 °C
Range Humidity: 41 %

Shot No.	Powder Charge (gr.)	CHRONOGRAPHS 1 - 4 TIME sx-5	CHRONOGRAPHS 1 - 4 VELOCITY m/s	CHRONOGRAPHS 2 - 3 TIME sx-5	CHRONOGRAPHS 2 - 3 VELOCITY m/s	AVERAGE VELOCITY m/s	LOSS VELOCITY m/s	STRIKING VELOCITY m/s	TEST RESULTS Shot Location	TEST RESULTS Shot Included	TEST RESULTS Complete Partial
1	3.5	262.6	580.3	214.1	581.5	580.9	24.0	556.9	1	N	P
2	3.8	244.7	622.8	199.4	624.4	623.6	25.9	597.7	2	N	P
3	4.2	226.4	673.1	184.4	675.2	674.1	28.1	646.0	3	N	P
4	4.6	216.0	705.5	175.9	707.8	706.7	29.5	677.2	4	N	P
5	5.0	179.9	847.1	146.7	848.7	847.9	35.0	812.9	5	N	C
6	4.7	215.6	706.9	175.5	709.4	708.1	29.5	678.6	6	N	P
7	5.0	179.0	851.4	145.8	853.9	852.6	35.2	817.5	7	N	C
8	4.8	214.8	709.5	175.1	711.0	710.3	29.6	680.6	8	N	P
9	5.0	203.5	748.9	165.8	750.9	749.9	31.2	718.6	9	Y	P
10	5.3	193.5	787.6	157.6	790.0	788.8	32.8	756.0	10	Y	C
11	5.1	197.1	773.2	160.6	775.2	774.2	32.2	742.0	11	Y	C
12	4.9	201.9	754.8	164.4	757.3	756.1	31.5	724.6	12	Y	P
13	5.1	200.8	759.0	163.7	760.5	759.7	31.6	728.1	13	Y	P
14	5.3	195.7	778.7	159.4	781.0	779.9	32.4	747.5	14	Y	C

This test was performed in accordance with the specification requirements and the results properly reflect the ballistic performance of the listed sample.

V50 VELOCITY	HIGH PARTIAL	LOW COMPLETE	RANGE OF RESULTS	RANGE OF MIXED RESULTS
736.1	**728.1**	**742.0**	**37.4**	**-13.9**

Notes:
•Panel tested in cover only, no outer carrier provided.
•Sample secured using clamping system for soft armour component IAW Annex D., Figure D.1 (air/hydraulic frame and clamp fixture).

Projectile Used:
.22 Caliber, 1.1g +/- 0.03g (17 gr.) Chisel Nose Fragment Simulating Projectile (FSP)
as described in MIL-DTL-46593 launched without a sabot (30 +/- 2 HRC / Non-Tumbled)
@ a starting velocity of: 550.0 m/s

V50 Calculation:
•V50 based on (3) partial and (3) complete penetrations with a range of results ≤ 40 m/s.

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Sample Description:
•Customer Proprietary.

Technician(s): Cisneros/ Wilson

Element Materials Technology
V50 BALLISTIC LIMIT TEST

Date Received:	April 16, 2024	Record No.:	MIG24010-14
Via:	DHL	Test Date:	April 24, 2024
Returned Via:	DHL	Customer:	Miguel Caballero

Sample Tested

Manufacturer:	C.I.A Miguel Caballero S.A.S
Model No.:	BRAVO S33-Miguel Caballero
Size:	XS
Serial No.:	608684
Lot No.:	T0709224201531001
Male / Female:	Female
Front / Back	Back
Weight (kg):	0.687
Conditioning:	Ambient

Threat

Projectile:	Fragment Simulating Projectile
Type:	Type 1 (30 +/- 2 HRC / Non-Tumbled)
Weight:	1.1 g (17 gr.)
Powder:	Bullseye
Barrel (cm):	60.96
Obliquity:	0º
Yaw:	≤ 5º

Test Standard

STANAG 2920 Edition 3,
NATO STANDARD AEP-2920
Edition A, Version 2
September 2016

Range 2

Muzzle to Screen 1:	1.12 m
Screen 1 - 4:	1.52 m
Screen 2 - 3:	1.24 m
Screen 4 - Target:	1.70 m
Target to Witness:	15 cm
Midpoint to Target:	2.46 m
Witness:	2024-T3 Aluminum
Range Temperature:	20.8 °C
Range Humidity:	41 %

Shot No.	Powder Charge (gr.)	CHRONOGRAPHS 1 - 4 TIME sx-5	CHRONOGRAPHS 1 - 4 VELOCITY m/s	CHRONOGRAPHS 2 - 3 TIME sx-5	CHRONOGRAPHS 2 - 3 VELOCITY m/s	AVERAGE VELOCITY m/s	LOSS VELOCITY m/s	STRIKING VELOCITY m/s	TEST RESULTS Shot Location	TEST RESULTS Shot Included	TEST RESULTS Complete Partial
1	3.5	254.7	598.3	207.7	599.4	598.9	24.8	574.1	1	N	P
2	4.0	240.0	635.0	195.7	636.2	635.6	26.4	609.1	2	N	P
3	4.5	225.0	677.3	183.2	679.6	678.5	28.3	650.2	3	N	P
4	5.0	201.6	755.9	164.3	757.8	756.8	31.5	725.3	4	N	C
5	4.8	205.0	743.4	167.0	745.5	744.5	31.0	713.4	5	Y	C
6	4.6	214.9	709.2	175.1	711.0	710.1	29.6	680.5	6	Y	P
7	4.8	212.1	718.5	172.9	720.1	719.3	30.0	689.3	7	Y	P
8	5.0	201.6	755.9	164.1	758.7	757.3	31.5	725.8	8	N	C
9	4.8	212.5	717.2	173.2	718.8	718.0	30.0	688.0	9	Y	C
10	4.6	214.4	710.8	174.5	713.5	712.1	29.7	682.4	10	Y	P
11	4.8	206.2	739.1	168.0	741.1	740.1	30.9	709.2	11	Y	C

This test was performed in accordance with the specification requirements and the results properly reflect the ballistic performance of the listed sample.

V50 VELOCITY	HIGH PARTIAL	LOW COMPLETE	RANGE OF RESULTS	RANGE OF MIXED RESULTS
693.8	**689.3**	**688.0**	**33.0**	**1.2**

Notes:

•Panel tested in cover only, no outer carrier provided.
•Sample secured using clamping system for soft armour component IAW Annex D., Figure D.1 (air/hydraulic frame and clamp fixture).

Projectile Used:

.22 Caliber, 1.1g +/- 0.03g (17 gr.) Chisel Nose Fragment Simulating Projectile (FSP)
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@ a starting velocity of: 550.0 m/s

V50 Calculation:

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Sample Description:

•Customer Proprietary.

OFFICIAL ELEMENT TEST CERTIFICATE

element

Nick Zerger
Operations Manager

Technician(s): Cisneros/ Wilson