H.P. WHITE LABORATORY, INC.

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6 April 2009 (HPWLI 11172-01B)

ISBI-Level X-CPS 5301 SW 184 Way Miami, Florida 33029

Attention: John Murphy

Gentlemen:

In accordance with your instructions, H.P. White Laboratory, Inc. conducted ballistic resistance testing of one transparent armor sample received 9 October 2008 via United Parcel Service.

Testing was conducted in accordance with the provisions of NIJ-STD-0108.01, BALLISTIC RESISTANT PROTECTIVE MATERIALS, dated September 1985, Level III, using caliber 7.62x51mm, 149 grain, M80, Ball ammunition. The test sample was rigidly mounted on an indoor range 50.0 feet from the muzzle of a test barrel to produce zero degree obliquity impacts. Photoelectric lumiline screens were positioned at 6.5 and 9.5 feet, which, in conjunction with elapsed time counters (chronographs), were used to determine projectile velocities 8.0 feet from the muzzle. Penetrations were determined by visual examination of a 0.020 inch thick alloy 2024T3 aluminum witness panel positioned 6.0 inches behind, and parallel to, the test sample. Table I is a summary of the attached data record.

TABLE I. SUMMARY OF RESULTS

7	Test Sample		Ballistic Threat				Results
Number	Weight (lb)	Thickness (in) (a)	Caliber	Shots (b)	Veloci Maximum	ty (fps) Minimum	Penetrations
SAMPLE 2 (0291)	43.76	1.736	7.62, M80	5	2783	2746	0

(a) Average of four corner thicknesses.

(b) Four impacts on 8 inch square, one impact in center.

Based on the data presented in Table I, the test sample submitted for testing SATISFIED the ballistic resistance requirements of NIJ-STD-0108.01, Level III. This conclusion is based on data obtained from having tested only the sample submitted, and should NOT be interpreted as an endorsement by H.P. White Laboratory, Inc. of the continuing quality, or performance, of any other items of the same, or similar, design.

The test sample is being returned via United Parcel Service. Should you have any questions regarding this matter, or if we may be of any further service, please do not hesitate to contact us.

Very truly yours,

H.P. White Laboratory, Inc.

3. Dunn

CBD/tc Enclosure



H.P. White Laboratory, Inc.

Job No.: 11172-01

Client: ISBI-LEVEL X-CPS

Test Date: 3/30/09

TEST PANEL

Manufacturer: ISBI-LEVEL X-CPS

Size: 19.75 X 19.75 in.

Thicknesses: 1.739, 1.752, 1.729, 1.723 in.

Avg. Thick.: 1,736 in.

Description: LAMINATED TRANSPARENCY

Sample No.: SAMPLE 2 (0291)

Weight: 43.76 lbs.

Hardness : NA

Plies/Laminates : NA

Date Rec'd.: 10/9/08

Via: UPS

Returned: UPS

SET-UP

Shot Spacing: 4 ON 8" SQUARE - 1 IN CENTER

Witness Panel: 0,020", 2024-T3 ALUMINUM

Obliquity: 0 deg.

Backing Material: NA

Conditioning : AMBIENT

Primary Vel. Screens: 6.5 ft., 9.5 ft.

Primary Vel. Location: 8.0 ft. From Muzzle

Residual Vel. Screens : NA

Residual Vel. Location: NA Range to Target: 50.0 ft.

Target to Wit.: 6.0 in.

Range No.: 3

Temp.: 51 F

BP: 29.56 in. Hg

RH: 47%

Barrel No./Gun: R3,308

Gunner: CONTRERAS J.

Recorder: BONSALL

<u>AMMUNITION</u>

(1): 7.62mm Ball, M80, 149 gr.

(2):

(3):

(4):

Lot No.:

Lot No.: Lot No.:

Lot No.:

APPLICABLE STANDARDS OR PROCEDURES

(1): NIJ-STD-0108.01 LEVEL III

(2): REQUIRED VELOCITY: 2700-2800 fps.

(3):

Shot No.	Ammo.	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Penetration	Footnotes
1 2 3 4 5	1 1 1 1 1 1	1089 1093 1083 1089 1077	2755 2745 2770 2755 2786	1090 1092 1081 1089 1079	2752 2747 2775 2755 2780	2754 2746 2773 2755 2783	None None None None	

REMARKS:	FOOTNOTES:

Filename: 11172-01 (SAMPLE 2 (0291)) ISBI-LEVEL X-CPS.Pen