OREGON BALLISTIC LABORATORIES

October 12, 2016

Boydd Products, Inc.
19510 Van Buren Blvd. F3-259
Riverside, CA 92508
ATTN: James Boydd

Dear Mr. Boydd:

In accordance with your instructions, Oregon Ballistic Laboratories conducted Ballistic Resistance (V_0) testing on one sample.
The sample was tested in accordance with NIJ-STD-0101.06 Level IV (abbrev) (mod) in an indoor range with the muzzle of the test barrel mounted 50 feet away from the target and positioned to produce 0-degree obliquity impacts. Four infrared light screens, in conjunction with time-based frequency counters, were positioned such that bullet velocity was measured 8.25 feet from the target. Penetrations were determined by examination of a 5.5-inch clay block mounted behind the test sample. Results for all testing performed for this purpose are summarized in the following table.

Test Sample			Ballistic Threat				Results			
OBL No.:	Model No.:	Weight (lbs.)	Projectile	Shots	Velocity (fps)		Penetrations	BFD (mm)		Pass/Fail
					Min.	Max.		Min.	Max.	
14397	BPI-004-MC	6.14	.30 cal M2AP	6	2852	2892	0	37.73	38.65	Pass

Samples will be maintained at Oregon Ballistic Laboratories for 30 days and then discarded, unless other instructions are received. If you have any further questions or concerns, please contact us.

Sincerely,

Brandon Bertsch
Oregon Ballistic Laboratories

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BALLISTIC RESISTANCE TEST - V_0

Customer: Boydd Products, Inc.
OBL ID#: 14397
Test Date: 10/12/2016
Purchase Order:

TEST SAMPLE

Model No.:	BPI-004-MC	**Size:**	10 x 12
Sample No.:	N/A	**Weight (lb.):**	6.14
Lot No.:	N/A	**Thickness:**	N/A
Plies:	N/A	**Avg. Thk. (in):**	
Description:	Level IV Hard Armor Plate		

RANGE SET-UP

Range to Target:	50 ft.	**Range #:**	2	**Pre Test:**					
Screen Dist. Vel. 1 (ft.):	5	**Temperature:**	67.0 °F	**Clay Drops (mm):**	16.83	17.76	18.84	17.71	20.98
Screen Dist. Vel. 2 (ft.):	5	**Bar. Pressure:**	30.10 in. Hg	**Drop Avg (mm):**	18.42				
Screen 4 to target (ft):	N/A	**Rel. Humidity:**	54.2 %	**Clay Temp °F:**	93.0				
Primary Vel. Location:	8.25 ft. from target	**Sample Temp.**	Amb. °F	**Clay Box #:**	1				
Striking Velocity:	No	**Recorder:**	Joe Simon	**Post Test:**					
Target to Witness:	N/A	**Gunner:**	Grant Zitek	**Clay Drops (mm):**	18.85	16.97	16.72	18.09	19.47
Witness Panel:	N/A			**Drop Avg (mm):**	18.02				
Backing Material:	5.5" clay block w/ 3/4" plywood backing			**Clay Temp °F:**	91.4				
Obliquity:	0 Degrees								
Barrel:	.30-06/1:10/33"								

AMMUNITION

Projectile: .30 cal. 160gr. M2 AP **Powder:** N133

STANDARDS / PROCEDURES

NIJ-STD-0101.06 Level IV (abbrev) **Required Velocity:** 2880 fps ± 30 fps

SHOT NO.	PROJECTILE WT. (gr.)	POWDER WT. (gr.)	TIME 1 µs (10^{-6})	TIME 2 µs (10^{-6})	VELOCITY 1 ft/s	VELOCITY 2 ft/s	AVERAGE VELOCITY	PENET. P/C	OBLIQUITY	CALIPER BFD	NOTES
1	161.7	47.0	1734	1736	2884	2880	2882	P	0°	38.65	
2	161.9	47.0	1735	1740	2882	2874	2878	P	0°	37.73	
3	163.0	47.0	1750	1757	2857	2846	2852	P	0°		
4	163.5	47.2	1732	1736	2887	2880	2884	P	0°		
5	163.1	47.2	1745	1748	2865	2860	2863	P	0°		
6	162.7	47.2	1728	1730	2894	2890	2892	P	0°		

REMARKS:

P=Partial Penetration
C=Complete Penetration
UH=Unfair Hit

TEST RESULTS:

Test sample satisfied the ballistic requirements given.

FOOTNOTES:

Sample was subjected to Armor Drop Test per section 6.2.3.4
Sample was subjected to Armor Submersion per section 7.8.2

NVLAP LAB CODE 200826-0 NIJ CERTIFIED LABORATORY

This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.