

## Appendix I – Gila Defense 9mm



Annex A - V&D/Bullet Pull Test Results

TEST AMMUNITION: Gila LOT# N/A									Headstamp: 9mm Luger *--*							
Inspected by: Harden/ Hammel/Johnson									Purple/Copper projectile, Brass Cartridge Case							
Visual & Dimensional Inspection	Overall Cartridge Weight (grains)	COAL (inches)	Case Mouth Dia (inches)	Extractor Groove Dia (Inches)	Rim Dia (inches)	Rim Thickness (inches)	Primer Seating Depth (inches)	Extraction Force (pounds)	Cartridge Case Length (inches)	Case Weight (grains)	Projectile Dia (inches)	Propellant Charge Weight (grains)	Projectile Weight (grains)	REFERENCE		
														Overall Cartridge Weight (grains)		
9mm																
1	162.7	1.167	0.377	0.340	0.388	0.044	0.0020	66.9	0.749	60.3	0.355	6.9	94.5	180.0	A360 Ball	
2	162.7	1.167	0.378	0.340	0.388	0.044	0.0020	54.3	0.750	59.6	0.355	6.8	94.6	190.0	A363/ M882 Ball	
3	162.5	1.164	0.377	0.340	0.388	0.044	0.0030	62.1	0.750	59.7	0.355	6.9	94.7	159.0	AA16 Frangible	
4	162.5	1.164	0.378	0.340	0.388	0.044	0.0040	51.2	0.744	59.7	0.355	7.0	94.5			
5	162.1	1.167	0.377	0.339	0.388	0.044	0.0040	55.1	0.751	59.3	0.355	6.9	94.6			
6	162.9	1.172	0.377	0.340	0.388	0.045	0.0010	48.6	0.749	60.1	0.355	7.0	94.6			
7	162.5	1.172	0.377	0.340	0.388	0.045	0.0060	45.1	0.750	59.3	0.355	7.0	94.7			
8	162.6	1.168	0.377	0.340	0.388	0.045	0.0020	39.1	0.750	60.5	0.355	7.4	94.6			
9	162.1	1.172	0.377	0.340	0.388	0.045	0.0010	48.9	0.751	59.9	0.355	7.4	94.8			
10	162.3	1.172	0.377	0.340	0.388	0.045	0.0050	51.4	0.751	60.1	0.355	7.5	94.8			
11	162.3	1.170	0.378	0.340	0.388	0.044	0.0040	34.7	0.751	60.1	0.355	7.3	94.6			
12	161.8	1.165	0.377	0.340	0.388	0.045	0.0040	41.8	0.753	59.7	0.355	7.3	94.8			
13	162.9	1.166	0.377	0.340	0.388	0.045	0.0050	45.7	0.751	60.1	0.355	7.1	95.4			
14	162.7	1.166	0.377	0.340	0.388	0.045	0.0010	72.4	0.750	60.1	0.355	7.4	95.2			
15	163.1	1.178	0.377	0.340	0.388	0.045	0.0010	87.7	0.750	60.3	0.355	7.4	95.2			
16	162.9	1.164	0.377	0.340	0.388	0.045	0.0010	46.4	0.750	60.8	0.355	7.2	94.9			
17	162.8	1.169	0.378	0.340	0.388	0.045	0.0030	21.8	0.749	60.3	0.355	7.3	95.2			
18	162.4	1.165	0.377	0.340	0.388	0.044	0.0045	56.6	0.750	59.9	0.355	7.3	95.0			
19	162.6	1.171	0.377	0.340	0.388	0.045	0.0010	56.6	0.751	60.3	0.355	7.4	94.9			
20	162.6	1.168	0.377	0.340	0.388	0.044	0.0030	42.2	0.750	60.6	0.355	7.2	95.1			
21	162.4	1.168	0.377	0.340	0.388	0.045	0.0020									
22	162.3	1.173	0.377	0.340	0.388	0.045	0.0040									
23	162.4	1.170	0.377	0.340	0.388	0.040	0.0055									
24	162.6	1.171	0.377	0.340	0.388	0.045	0.0050									
25	162.5	1.163	0.377	0.341	0.388	0.045	0.0020									
MAX	163.1	1.178	0.378	0.341	0.388	0.045	0.006	87.7	0.753	60.8	0.355	7.5	95.4			
MIN	161.8	1.163	0.377	0.339	0.388	0.040	0.0010	21.8	0.744	59.3	0.355	6.8	94.5			
AVG	162.5	1.168	0.377	0.340	0.388	0.044	0.0030	51.4	0.750	60.0	0.355	7.2	94.8			
ExtSprd	1.3	0.015	0.001	0.002	0.000	0.005	0.005	65.9	0.009	1.5	0.000	0.7	0.9			
STDEV	0.3	0.004	0.000	0.000	0.000	0.001	0.0016	13.8	0.002	0.4	0.000	0.2	0.3			

**Annex B – Leak Test Results**

				Location	
<b>Leak</b>	No Leak	Slow Leak	Fast Leak	Mouth	Primer
<b>9mm</b>	<b>Gila</b>				
1	X				
2		X		X	
3	X				
4	X				
5	X				

<b>National Defense</b>			<p><u>Leak testing:</u> Observe any air bubbles and note with an X in the appropriate box to the left. The number of bubbles should be placed in the box under the location (Mouth or Primer).  <u>Slow Leak</u> = 2 or more air bubbles appearing at a rate that only one bubble is in transit to the surface at any one time.  <u>Fast Leak</u> = A series of air bubbles appearing at the primer or mouth of the case, or both, which are liberated at such a rate that more than one bubble from the primer or mouth of the cartridge case is in transit to the surface at any one time</p>
	<b>Muzzle Velocity (ft/s)</b>	<b>Chamber Pressure (psi)</b>	
<b>Rnd</b>			
1	1,363	33,294	
2	1,377	32,326	
3	1,357	30,727	
4	1,380	32,525	
5	1,384	30,719	
<b>Avg</b>	1,372	31,918	
<b>SD</b>	12	1,149	
<b>HI</b>	1,384	33,294	
<b>LO</b>	1,357	30,719	
<b>ES</b>	27	2,575	
<b>Comment:</b>			

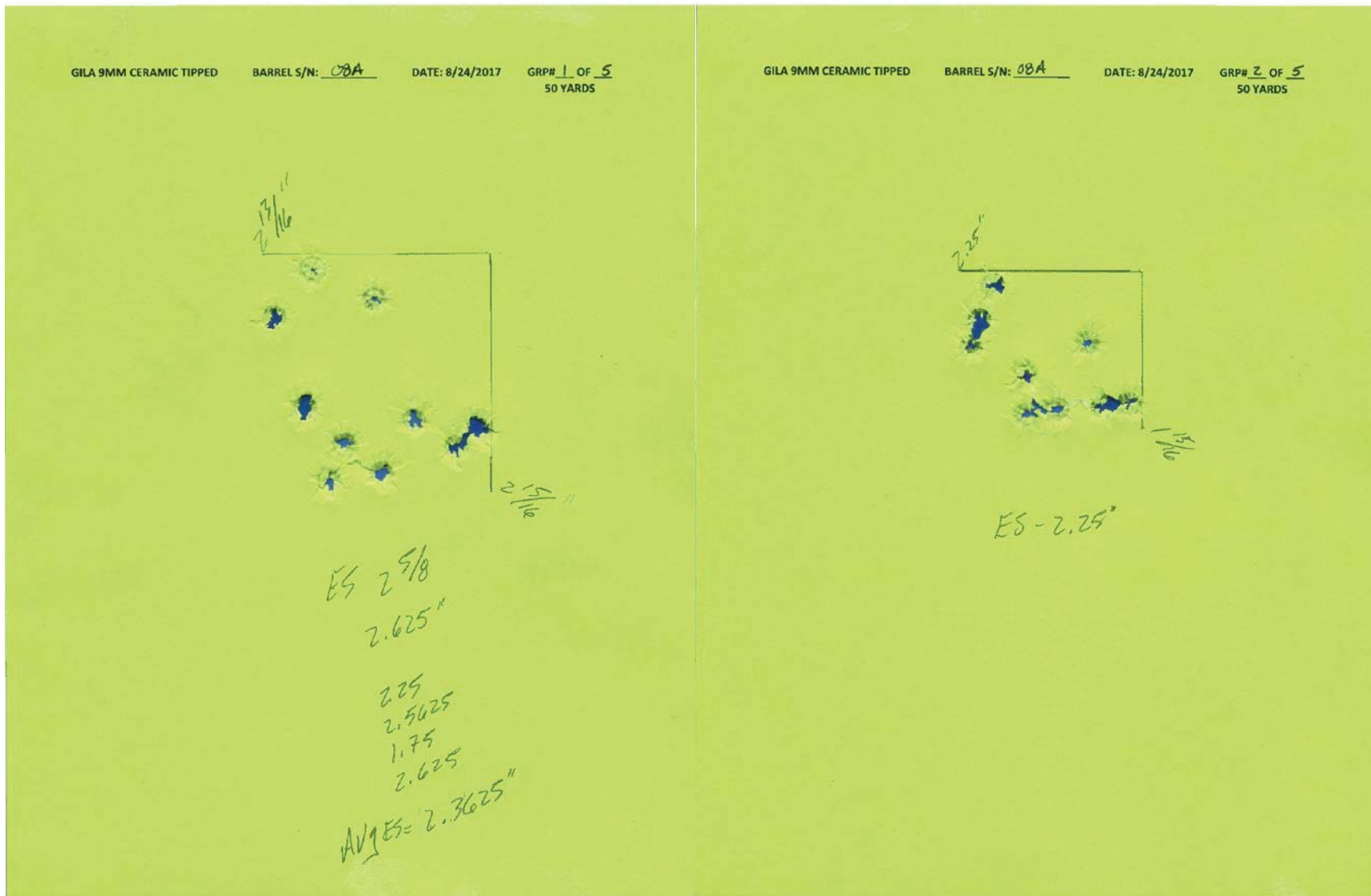
**Annex C – EPVAT Test Results**

EPVAT	-25°F		+70°F		+145°F		Reference +70°F				
	Pressure	Velocity	Pressure	Velocity	Pressure	Velocity	Pressure	Velocity			
9mm			9mm		9mm		9mm				
1	32,708	1,351		32,301	1,371		29,376	1,313		28,738	1,178
2	34,865	1,389		32,022	1,366		29,795	1,298		28,100	1,204
3	33,719	1,377		31,353	1,325		31,905	1,367		31,145	1,225
4	32,645	1,418		31,377	1,320		31,179	1,341		28,890	1,208
5	34,684	1,430		31,781	1,336		31,705	1,371		28,771	1,194
6	33,152	1,428		30,306	1,335		28,664	1,325		28,847	1,206
7	33,028	1,409		30,772	1,310		29,684	1,334		29,239	1,211
8	33,321	1,416		30,525	1,339		30,549	1,331		28,731	1,217
9	34,382	1,415		31,710	1,374		30,032	1,333		27,919	1,195
10	34,441	1,428		31,565	1,325		27,954	1,315		28,546	1,198
11	34,367	1,389		31,751	1,357		31,758	1,367		27,902	1,196
12	32,059	1,403		33,063	1,330		29,186	1,331		30,774	1,226
13	34,220	1,416		32,255	1,371		31,402	1,366		30,056	1,230
14	33,513	1,370		30,065	1,363		30,959	1,371		29,196	1,212
15	34,140	1,387		30,620	1,326		29,954	1,332		28,238	1,197
16	33,126	1,410		29,702	1,346		31,920	1,347		29,992	1,221
17	34,507	1,379		31,052	1,376		29,993	1,342		31,561	1,233
18	33,629	1,358		30,316	1,312		29,011	1,308		30,227	1,224
19	33,656	1,366		30,858	1,334		29,034	1,324		26,595	1,193
20	33,959	1,411		30,385	1,336		29,967	1,346		29,279	1,221
MAX	<b>34,865</b>	<b>1,430</b>	MAX	<b>33,063</b>	<b>1,376</b>	MAX	<b>31,920</b>	<b>1,371</b>	MAX	<b>31,561</b>	<b>1,233</b>
MIN	<b>32,059</b>	<b>1,351</b>	MIN	<b>29,702</b>	<b>1,310</b>	MIN	<b>27,954</b>	<b>1,298</b>	MIN	<b>26,595</b>	<b>1,178</b>
AVG	<b>33,706</b>	<b>1,398</b>	AVG	<b>31,189</b>	<b>1,343</b>	AVG	<b>30,201</b>	<b>1,338</b>	AVG	<b>29,137</b>	<b>1,209</b>
ExtSprd	<b>2,806</b>	<b>79</b>	ExtSprd	<b>3,361</b>	<b>66</b>	ExtSprd	<b>3,966</b>	<b>73</b>	ExtSprd	<b>4,966</b>	<b>55</b>
STDEV	<b>762</b>	<b>24</b>	STDEV	<b>872</b>	<b>21</b>	STDEV	<b>1,173</b>	<b>22</b>	STDEV	<b>1,207</b>	<b>15</b>

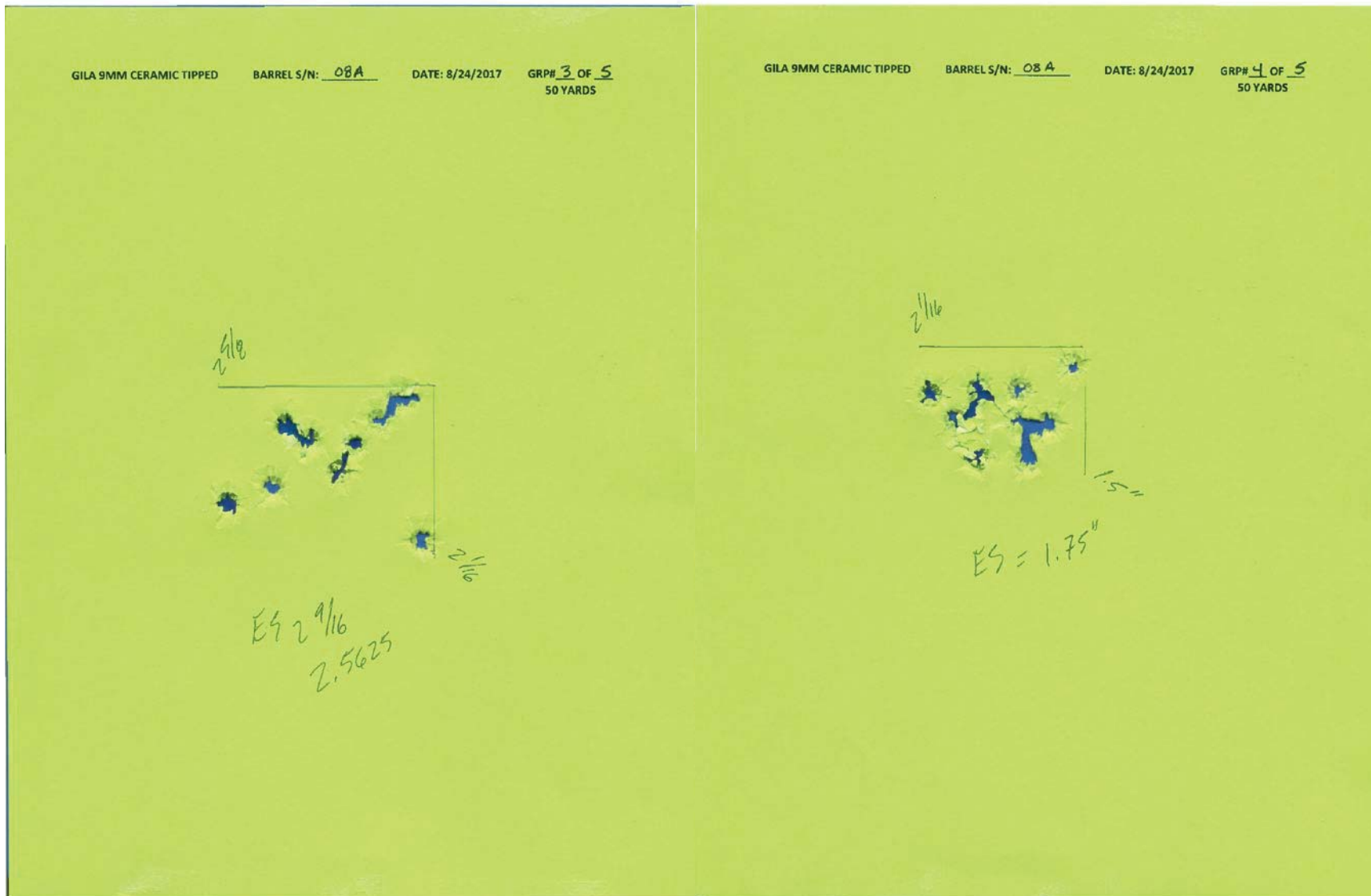
**Annex D – Dispersion Test Results**

<b>Gila Strike "Ceramic" 9mm Lot N/A</b>									
<b>Dispersion</b>	Group #1	Group #2	Group #3	Group #4	Group #5	<b>Barrel #1 08A</b>			
	10rds	10rds	10rds	10rds	10rds	<b>MAX</b>	<b>MIN</b>	<b>AVG</b>	<b>STDEV</b>
Ex Sprd (in)	2.63	2.25	2.56	1.75	2.63	2.63	1.75	2.36	0.38
<b>Dispersion</b>	Group #1	Group #2	Group #3	Group #4	Group #5	<b>Barrel #2 08B</b>			
	10rds	10rds	10rds	10rds	10rds	<b>MAX</b>	<b>MIN</b>	<b>AVG</b>	<b>STDEV</b>
Ex Sprd (in)	3.63	3.63	4.19	4.19	1.81	4.19	1.81	3.49	0.98
						<b>Overall Avg</b>		<b>2.93</b>	

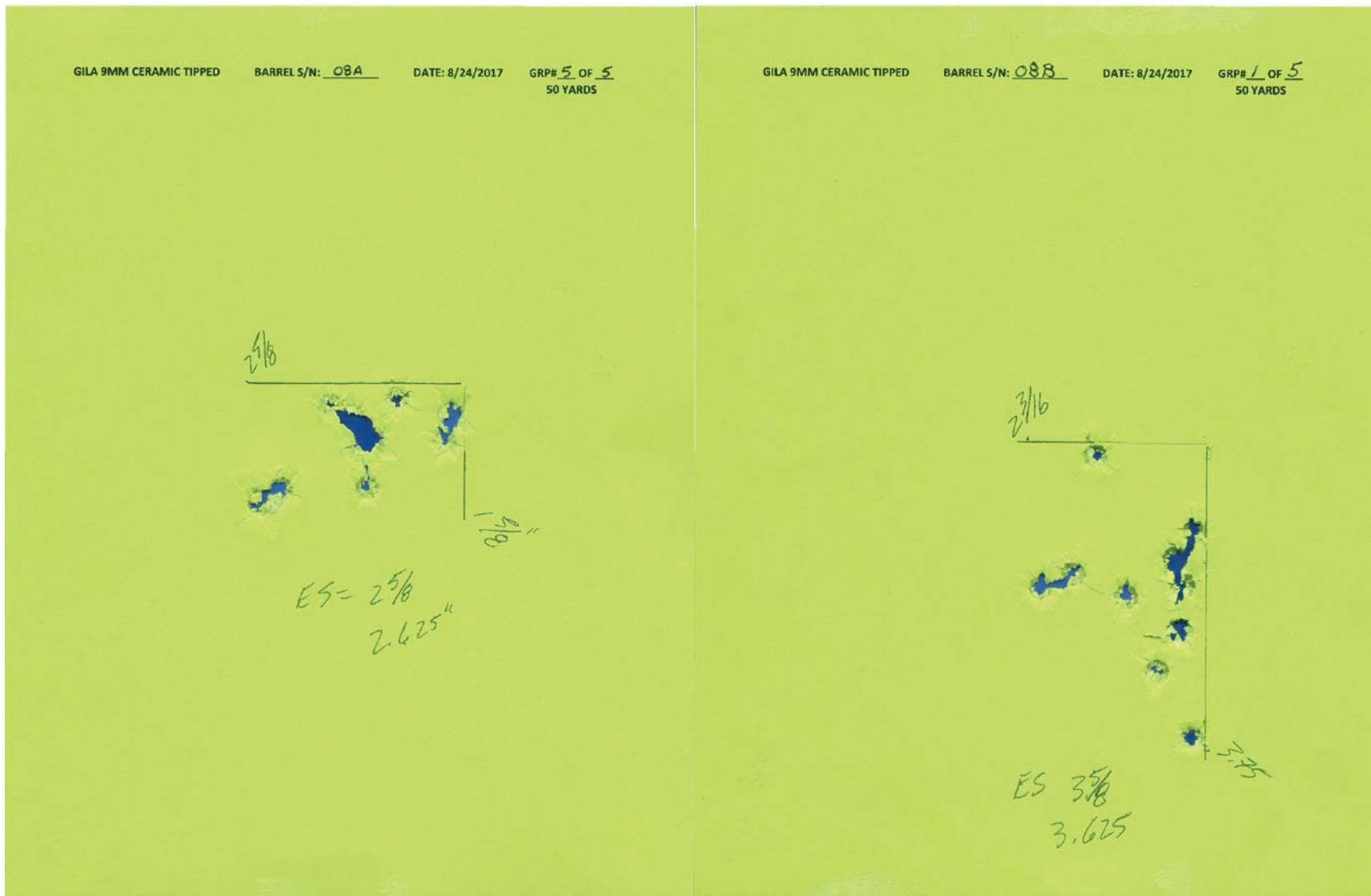
### Annex D – Dispersion Test Results (Test Barrel S/N 08A)



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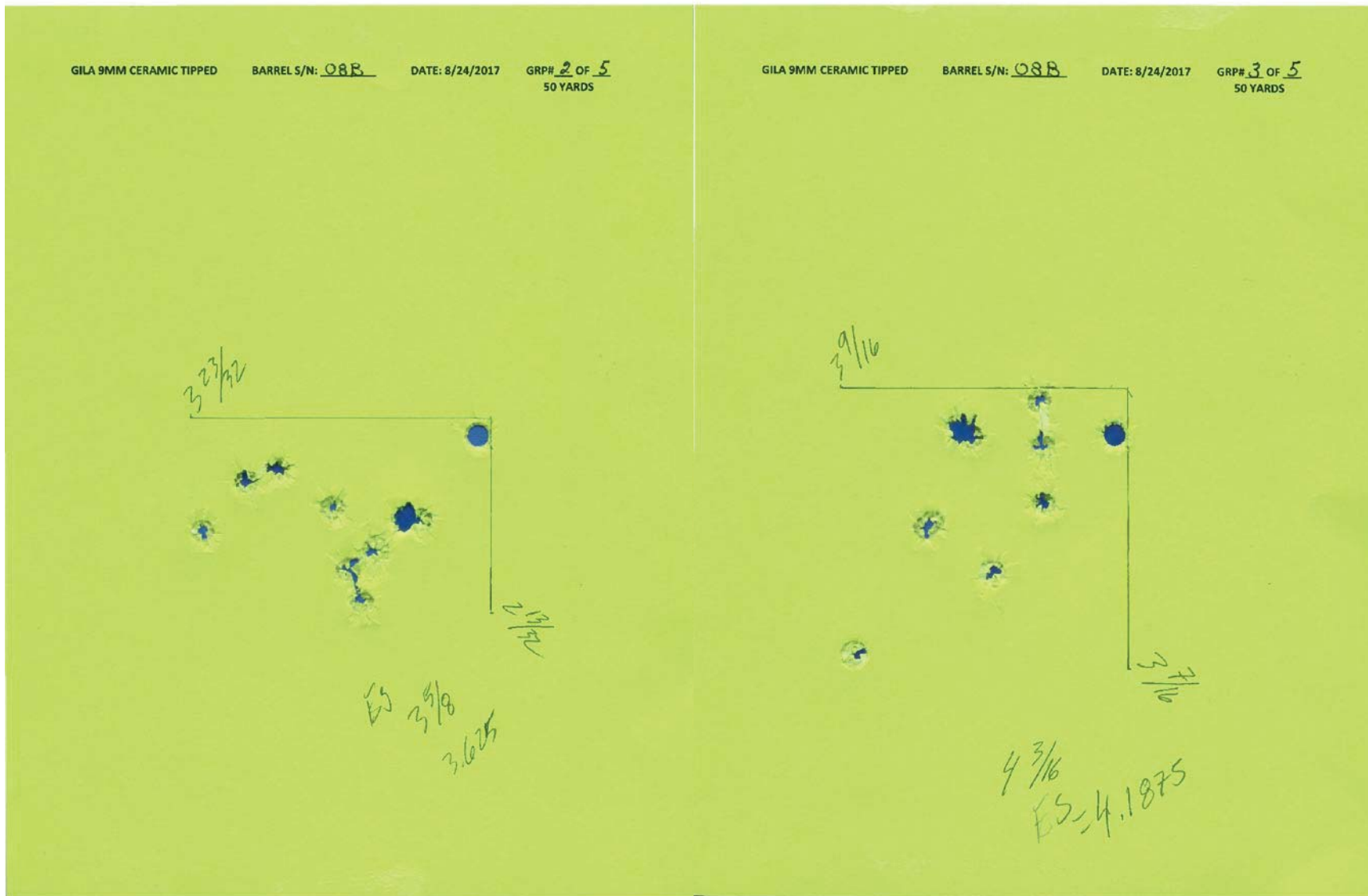


### Annex D – Dispersion Test Results (Test Barrel S/N 08A/B)

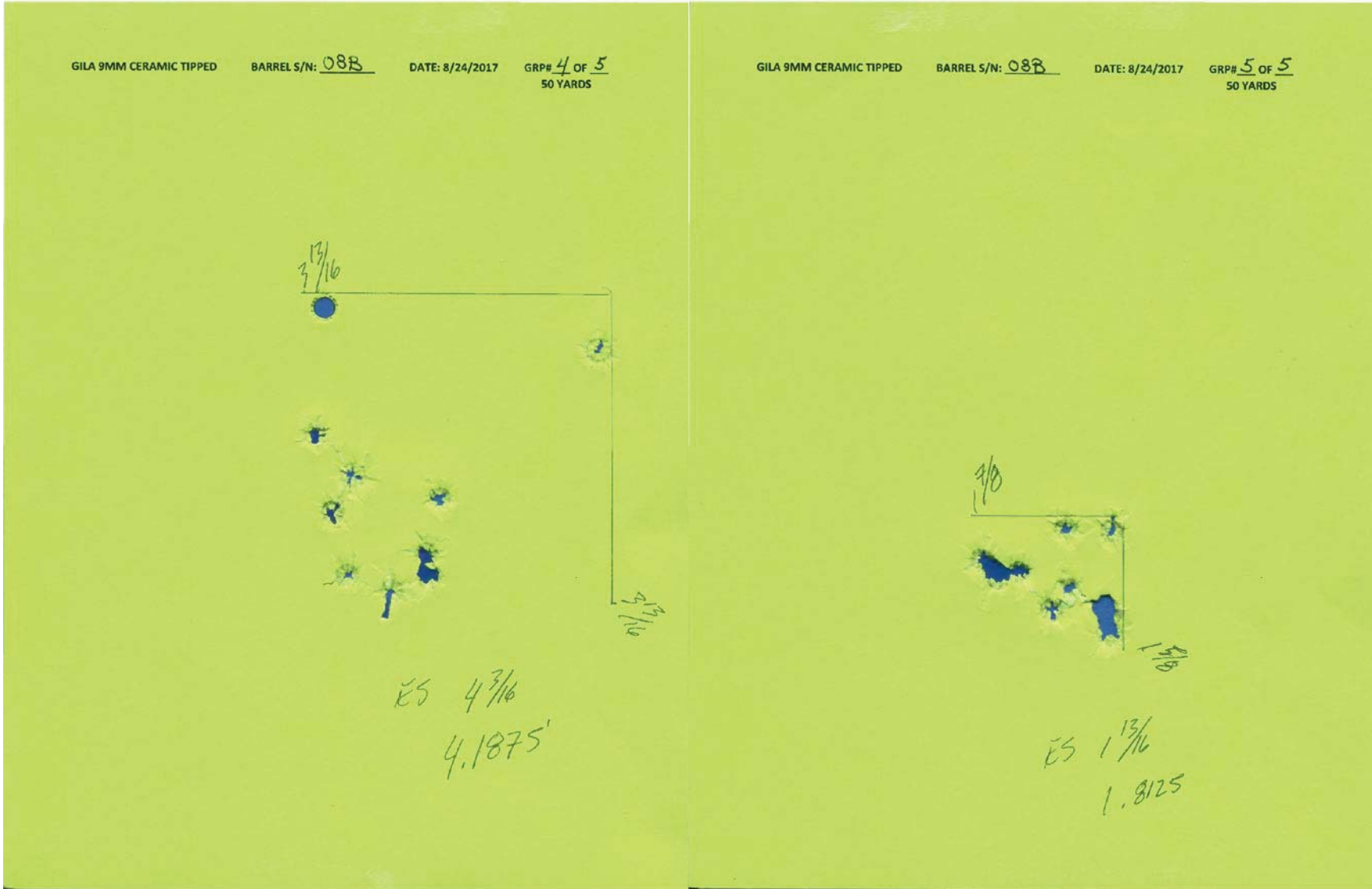




### Annex D – Dispersion Test Results (Test Barrel S/N 08B)



### Annex D – Dispersion Test Results (Test Barrel S/N 08B)





Annex E – F&C Test Results

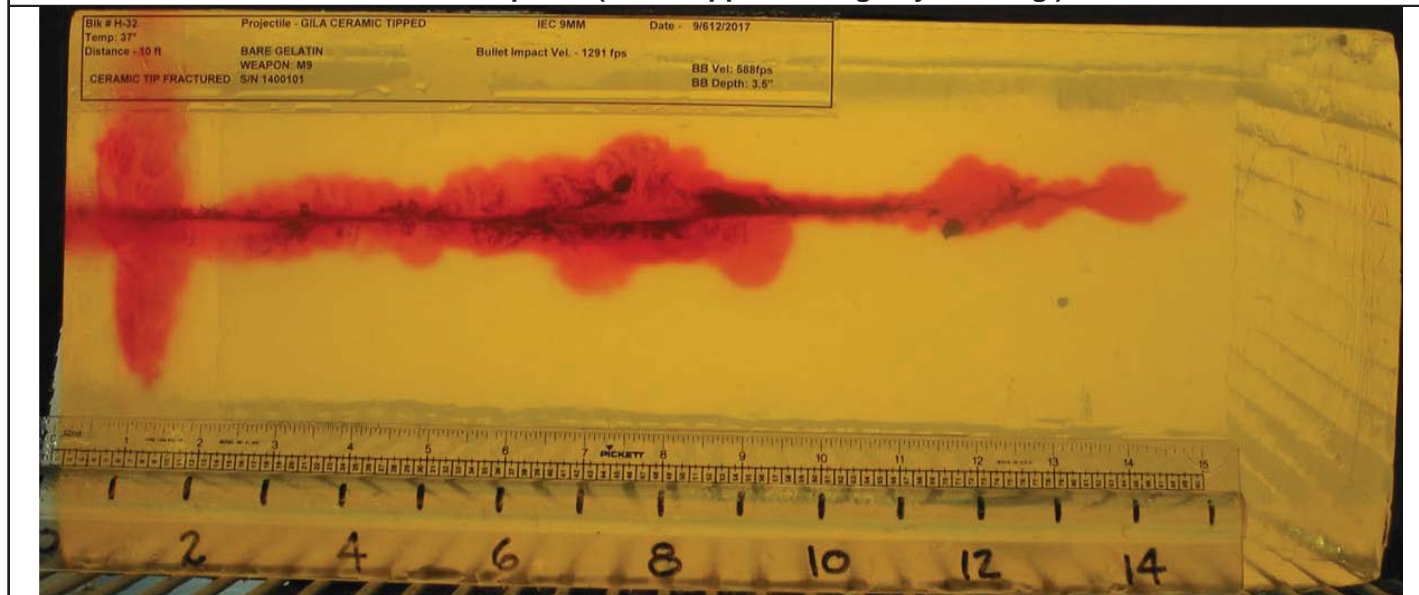
Function & Casualty	Issue Y/N	FTF	BoB	FtPU	FTC	FTX	FTE	FTL	Hangfire	CS	SP	LS	M9 - 1400101					
<b>9mm</b>	<b>3 Magazines of 15 (HOT +145°F)</b>												FTF	Fail to Feed				
1-15	N												BoB	Bolt over Base				
16-30	N												FtPU	Fail to Pick up				
31-45	N												FTC	Fail To Chamber				
<b>9mm</b>	<b>3 Magazines of 15 (Ambient +70°F)</b>												FTX	Fail to Extract				
1-15	N												FTE	Fail to Eject				
16-30	N												FTL	Fail to Lock bolt to the rear on last round				
31-45	N												CS	Case Separation				
<b>9mm</b>	<b>3 Magazines of 15 (COLD -25°F)</b>												SP	Stove Pipe Jam				
1-15	N												LS	Light Strike on Primer				
16-30	N																	
31-45	N																	

Function & Casualty	Issue Y/N	FTF	BoB	FtPU	FTC	FTX	FTE	FTL	Hangfire	CS	SP	LS	M9 - 1410724					
<b>9mm</b>	<b>3 Magazines of 15 (HOT +145°F)</b>												FTF	Fail to Feed				
1-15	N												BoB	Bolt over Base				
16-30	N												FtPU	Fail to Pick up				
31-45	N												FTC	Fail To Chamber				
<b>9mm</b>	<b>3 Magazines of 15 (Ambient +70°F)</b>												FTX	Fail to Extract				
1-15	N												FTE	Fail to Eject				
16-30	N												FTL	Fail to Lock bolt to the rear on last round				
31-45	N												CS	Case Separation				
<b>9mm</b>	<b>3 Magazines of 15 (COLD -25°F)</b>												SP	Stove Pipe Jam				
1-15	N												LS	Light Strike on Primer				
16-30	N																	
31-45	N																	



**Annex F – Ballistic Gelatin Test Results  
(Bare Gelatin)**

<b>Cartridge -</b>	Gila Defense	<b>Weapon - 1400101</b>	M9 Beretta
<b>Lot Number-</b>	N/A	<b>Barrel Length (in)-</b>	4.9
<b>Proj Weight (gr) -</b>	94.8	<b>Distance to Gel Block (ft) -</b>	10
<b>Block Number -</b>	H-32	<b>Block Impact Velocity (ft/s)-</b>	1291
<b>Frag particles recovered with &lt;8" penetration</b>		<b>Frag particles recovered with &gt;8" penetration</b>	
			

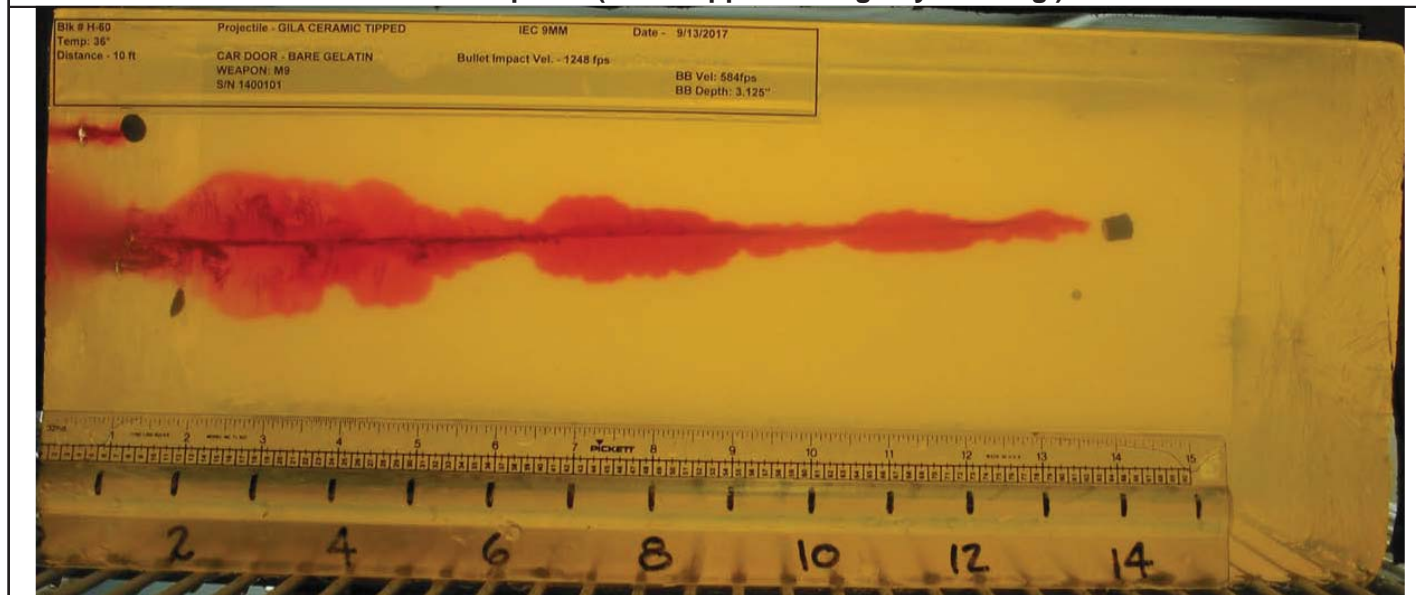
**Gel block photo ( block approx 8" high by 18" long )**





**Annex F – Ballistic Gelatin Test Results  
(Car Door - Bare Gelatin)**

<b>Cartridge -</b>	Gila Defense	<b>Weapon - 1400101</b>	M9 Beretta
<b>Lot Number-</b>	N/A	<b>Barrel Length (in)-</b>	4.9
<b>Proj Weight (gr) -</b>	94.8	<b>Distance to Gel Block (ft) -</b>	10
<b>Block Number -</b>	H-60	<b>Block Impact Velocity (ft/s)-</b>	1227
<b>Frag particles recovered with &lt;8" penetration</b>		<b>Frag particles recovered with &gt;8" penetration</b>	
			

**Gel block photo ( block approx 8" high by 18" long )**



### Annex F – Ballistic Gelatin Test Results (Glass - Bare Gelatin)

<b>Cartridge -</b>	Gila Defense	<b>Weapon - 1400101</b>	M9 Beretta
<b>Lot Number-</b>	N/A	<b>Barrel Length (in)-</b>	4.9
<b>Proj Weight (gr) -</b>	94.8	<b>Distance to Gel Block (ft) -</b>	10
<b>Block Number -</b>	H-33	<b>Block Impact Velocity (ft/s)-</b>	1236
<b>Frag particles recovered with &lt;8" penetration</b>		<b>Frag particles recovered with &gt;8" penetration</b>	
			

Gel block photo ( block approx 8" high by 18" long )

