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LABORATORY PROFICIENCY TESTING PROGRAM





THE FORENSIC SCIENCES FOUNDATION, INC.

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LABORATORY PROFICIENCY TESTING PROGRAM

REPORT NO.2

FIREARMS EVIDENCE

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Points of view or opinions stated in this document are those of the authors and do not necessarily represent the official position or policies of the U.S. Department of Justice.

TABLE OF CONTENTS

i

	Page
FOREWORD	ji
BACKGROUND	1.
SUMMARY	2.
ANNEX A - DATA SHEET	3.
FIGURE 1. DATA°SHEET USED FOR TEST NO. 2	0
ANNEX B -	e
NATIONAL BUREAU OF STANDARDS ANALYSIS	4.
TABLE 1 - CODE NUMBERS OF NON-RESPONDING LABORATORIESTABLE 2 - SUPPLIER'S DESCRIPTION OF TEST OBJECTSTABLE 3 - SUPPLIER'S SUGGESTED ANSWERSTABLE 4 - RESULTS FROM THREE REFEREE LABSTABLE 5 - CHARACTERISTICS DERIVED FROM LABORATORY RESPONSESTABLE 6 - REVOLVERS NAMED FOR PROJECTILE (ITEM 1)TABLE 7 - REVOLVERS NAMED FOR CARTRIDGE CASE (ITEM 2)TABLE 8 - AUTOMATICS NAMED FOR PROJECTILE (ITEM 3)TABLE 9 - AUTOMATICS NAMED FOR CARTRIDGE CASE (ITEM 4)TABLE 10- DIAMETER OF .38 SPECIAL PROJECTILE	5. 5. 7. 11. 12. 13. 14. 15. 16.
TABLE 11- LAND WIDTHS OF .38 SPECIAL PROJECTILETABLE 12- GROOVE WIDTHS OF .38 SPECIAL PROJECTILETABLE 13- DIAMETER OF .380 AUTOMATIC PROJECTILETABLE 14- LAND WIDTHS OF .380 AUTOMATIC PROJECTILETABLE 15- GROOVE WIDTHS OF .380 AUTOMATIC PROJECTILETABLE 15- GROOVE WIDTHS OF .380 AUTOMATIC PROJECTILETABLE 16- CLASS CHARACTERISTICS DERIVED FROM LABORATORYRESPONSES	16. 17. 17. 18. 18. 19.
TABLE 17-RESPONSES TO QUESTION 1TABLE 18-RESPONSES TO QUESTION 2TABLE 19-RESPONSES TO QUESTION 3TABLE 20-RESPONSES TO QUESTION 4TABLE 21-SUMMARY TABLES FOR ITEM 1TABLE 22-SUMMARY TABLES FOR ITEM 2TABLE 23-SUMMARY TABLES FOR ITEM 3TABLE 24-SUMMARY TABLES FOR ITEM 4	22. 27. 31. 36. 40. 42.



FOREWORD

ii.

The analysis summarized in this report is the second of a series that will be made in conjunction with this proficiency testing research project.

In the course of this testing program participating laboratories will have analyzed and identified ten different samples of physical evidence similar in nature to the types of evidence normally submitted to them for analysis.

The results of Test Number Two are reflected in the charts and graphs which follow.

The citing of any product or method in this report is done solely for reporting purposes and does not constitute an endorsement by the project sponsors.

Comments or suggestions relating to any portion of this report or of the program in general will be appreciated.

August 1975

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BACKGROUND

1.

This laboratory proficiency testing research project, one phase which is summarized in this report, was initiated in the fall of 1974.

This is a research study of <u>how</u> to prepare and distribute specific samples; <u>how</u> to analyze laboratory results; and <u>how</u> to report those results in a meaningful manner. The research will be conducted in two cycles, each of which will include five samples: a controlled substance; firearms evidence; blood; glass, and paint.

Participation in the program is voluntary. Accordingly, invitations have been extended to 235 laboratories to share in the research. It is recognized that all laboratories do not perform analyses of all possible types of physical evidence. Thus, in the data summaries included in this report, space opposite some Code Numbers (representing specific laboratories) may be blank, or marked "No Data Returned."

A final project report will be prepared at the conclusion of Cycle II.

The Project is under the direct control of the Project Advisory Committee whose members' names are listed on the Title Page. Each is a nationally known criminalistic laboratory authority.

Supporting the Project Advisory Committee in their efforts is the Forensic Sciences Foundation with additional support from the National Bureau of Standards in the areas of sample evaluation and data analysis and interpretation.



SUMMARY

2.

Test Sample #2 was sent to 170 laboratories. Three of those laboratories served as referees.

In the accompanying data summaries, 121 laboratories responded with completed data sheets, 11 laboratories responded that they did not do firearms examination and no response was received from 38 laboratories. This represents a participation rate of 76%.

No effort was made in this report to highlight areas wherein laboratory improvements might be instigated.

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LAB CODE A-	
CHECK HERE (AND RETURN IF YOU DO NOT PERFORM FIREARMS ANALYSIS)	- 2 -
STING	
DATA SHEET	
PROFICIENCY TESTING PROGRAM	3. This quastion refers to the cartridge case identified with an "X".
TEST NO. 2	
	What is the most probable weapon(s) from which this cartridge case was ejected (type - make - model - caliber)?
ne according to your normal laboratory procedures and complete portion(s) below which les with your laboratory policy.	
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ROBABLE WEAFONS(5)	
. This quoeticm refore to the projectile identified with a three digit number.	ala ana ang ang ang ang ang ang ang ang an
What is the most probable weapon(s) from which this projectile was fired (type - make - model - caliber)?	
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••••••••••••••••••••••••••••••••••••••	
	4. This question refers to the projectile which has no special "test" marks.
	What is the most probable weapon(s) from which this projectile was fired (type
	make - model - caliber)?
	-
. This question refers to the cartridge case identified with a three digit momber.	
What is the most probable weapon(s) from which this cartridge case was ejected	
(type - make - model - caliber)?	nya marakan kanalaran arakan kanalaran dari kanalaran dari kanalaran dari kanalaran dari kanalaran dari kanala K
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Programmer and the second s	
LAB CODE A	3. Cartridge case marked with an "X".
	a. Other Data (Position of extractor, ejector, form of firing pin impression, e
DATA CUTT	
DATA SHEET	
PROFICIENCY TESTING PROGRAM Test No. 2	
	b. Indicate Methods
11. ADDITIONAL INFORMATION ROUTINELY DEVELOPED	
1. Projectile marked with three digit number	
a. Other Data (Numbers of lands, groves, direction of twist, weight,	
 Other Data (Numbers of lands, groves, direction of twist, weight, dimensions, cannelure, probable load, etc.) 	
	 Projectile with no special "test" marks
	 a. Other Data (Number of lands, groves, direction of twist, weight, dimension, cannelure, probable load, etc.)
h Tadfasta Mothade	
b. Indicate Methods	
	b. Indicate Methods
	b. Indicate Methods
 <u>Cartridge case marked with three digit number</u> 	b. Indicate Methods
2. <u>Cartridge case marked with three digit number</u>	b. Indicate Methods
 <u>Cartridge case marked with three digit number</u> a. Other Data (Position of extractor, ejector, form of firing pin 	b. Indicate Methods <u>IMPORTANT</u>

b. Indicate Methods

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RETURN COPY TO:

KENNETH S. FIELD FORENSIC SCIENCES FOUNDATION, INC. 11400 ROCKVILLE PIKE, SUITE 515 ROCKVILLE, MARYLAND 20852 R

ANNEX B

National Bureau of Standards Analysis

LABORATORY TESTING PROGRAM

Test No. 2. - Firearms

A set of test objects was sent to 170 laboratories; 121 laboratories responded with data, 11 indicated ^Othey do not perform firearms analysis, and 38 did not respond. A tabulation of the codes for laboratories in each of these last two categories is given in Table 1.

The supplier's description of each of the four test objects, consisting of two cartridge cases and two projectiles, is given in Table 2. The supplier's suggested answers are given in Table 3. Responses from three referee laboratories is given in Table 4.

Table 5 tabulates the number of participating laboratories reporting the more common characteristics for each of the four test objects. The frequencies with which various manufacturers were reported are shown in Tables 6 and 7 respectively for the .38 special test objects, and in Tables 8 and 9 respectively for the .380 automatic test objects. Some statistics for measured diameters, land widths, and groove widths are shown in Tables 10 through 15 for the .38 special and .380 automatic projectiles. It should be recognized that the standard deviations given in Tables 10 through 15 reflect both variation between test objects and the imprecision of the measurements.

The remaining tables list individual results reported by each participating laboratory. Table 16 shows class characteristics for each of the four test objects, expressed in commonly used notation. "R-38-SPL-5-R", for example, denotes revolver -.38 - special - 5 lands and grooves - right hand twist. Tables 17 through 20 list individual responses to questions I.1. through I.4. (see data sheet). Tables 21 through 24 list individual responses to questions II.1 through II.4.

This annex was prepared by the Law Enforcement Standards Laboratory (LESL) of NBS, in conjunction with the NBS Laboratory Evaluation Technology Section (LETS). The anonymous test results reported by the participating forensic laboratories were analyzed and tabulated by Jeffrey Horlick, James McLeod and Charles Leete of LETS, and Robert Mills of LESL. This work was supported by the National Institute of Law Enforcement and Criminal Justice, Department of Justice.

Table 1

CODE NUMBERS OF NON-RESPONDING LABORATORIES

The following laboratories indicated they do not do firearms analysis:

711	764	843 932	
749	793	844 951	
753	826	885	

Total number of laboratories = 11

The following laboratories did not respond:

709	770	817	862	887	914	972
722	773	821	864	900	917	973
728	780	829	865	907	946	988
730	781	832	867	912	948	999
733	782	850	876		964	
741	811	859	879		966	

Total number of laboratories = 38

Table 2

Supplier's Description of Test Objects

Item #1, three digit number and letter "A" marked lead projectile; fired .38 special.

Item #2, three digit number marked, cartridge case, fired .38 special.

Item #3, unmarked jacketed projectile, fired .380 automatic.
Item #4, "x" marked, cartridge case, fired .380 automatic.

These items were all fired, segregated to item group, randomly handled, examined and randomly packaged. The numbers have no value other than to give reference to the item when reported by the participating laboratories.

Items #1 and #2 were prepared by firing 200 rounds of a .38 Special Remington, 158 grain lead ammunition of one lot in a .38 Special Smith and Wesson, M&P revolver, serial # C222994, frame-crane #33244, blue-steel, having a five inch barrel and being in fair to good condition. Ŷ

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Items #3 and #4 were prepared by firing 200 rounds of .380 auto Winchester, 95 grain, full metal case ammunition of two lots in a P. Beretta 9 mm Corto (.380 Auto) Model 1934, Brevettato auto lcading pistol, serial #686256 (Gardone V.T. 1938-XVI), being in good condition and with a fair barrel.

5.



Table 3 - Cont.

Table 3

SUPPLIER'S SUGGESTED ANSWERS

Item 1:

.38 special, lead, fired projectile (or has probably passed through a gun barrel)

- 5 lands and grooves
- Right hand twist

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- Assuming no barrel substitutions or alternations have been made, the projectile could have been fired in any of the below weapons:¹
 - Smith & Wesson all .38 special & .357 magnum models Sturm-Ruger Security Six, .38 special & .357 magnum Sturm-Ruger Speed Six Sturm-Ruger Police Service 6 INA Tiger and Model 3, Brazil Llama Modello Marshall, Spain Other Spanish & Belgian copies of Smith & Wesson and Colt models.
- Is (possibly/probably) identifiable to the weapon which fired it, and could have come from the .38 special cartridge case submitted.
- Item 2:

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- .38 special Remington cartridge case.
- The cartridge case could have been fired in any of the above listed weapons. In the absence of any other information, it could be presumed that this cartridge case could have been fired in any weapon which will chamber .38 special ammunition.
- The cartridge case could have contained the above lead bullet (Item 1).

¹The supplier does not intend to imply that the list of possible weapons is totally complete.

- Item 3:
 - .380 automatic, full metal jacketed, fired projectile.
 - 6 lands and grooves.
 - Right hand twist.
 - The projectile could have been fired in any of the below weapons:¹

Astra-Spain FN Browning's Pat-Belgian Beretta, P. Model 1934-Couger Bergman, T. Model 5 Bernardelli, Italy Bufalo, Spain C.Z., Mod. 1938-Czech. FN Browning Std.-1910 Frommer-Stop Galesi (IAG) Mod. 6-Italy High Standard Model G Llama-Spain MAB, Models C&D-France Manurhin-PP&PPK-France Mauser-HSc Ortgies DWA-German Savage Spanish Astra Bufalo Star - Spain Sterling PPL Tauler Model 3-Spain Walther Models PP, PPK MK II

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 This projectile is (possibly/probably) identifiable to the weapon which fired it and could have come from the .380 cartridge case submitted.

Item 4:

- .380 automatic Winchester or Winchester-Western fired cartridge case, which (possibly/probably) was fired in a .380 Beretta model 1934.
- Every .380 cartridge case supplied in the test bore a flat, dimpled firing pin impression, extractor and ejector marks with their relative positions, and double slide cuts on the body of the cartridge case. Presuming the projectile and cartridge case were fired in the same weapon, the class characteristics on both items should suggest a .380 Beretta model 1934.

¹The supplier does not intend to imply that the list of possible weapons is totally complete.

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Table 4

RESULTS FROM THREE REFEREE LABORATORIES

Laboratory 1

- I. PROBABLE WEAPON (S)
 - What is the most probable weapon(s) from which the projectile identified with a three digit number was fired?

Bullet 193A was fired in a .38 Special or .357 Magnum Caliber Revolver whose barrel is rifled with five lands and grooves inclined to the right. This type of rifling is common to Smith & Wesson and other revolvers of foreign manufacture.

 What is the most probable weapon(s) from which the cartridge case identified with a three digit number was ejected.

Cartride case 200 was fired in a revolver chambered for .38 Special or .357 Magnum cartridges.

- 3. What is the most probable weapon(s) from which the projectile which has no special "test" marks was fired?
 - The unmarked bullet was fired in a .380 Auto Caliber Auto Loading weapon whose barrel is rifled six lands and grooves inclined to the right. This type of rifling is common to Beretta and other weapons of foreign and domestic manufacture.
- 4. What is the most probable weapon(s) from which the cartridge case identified with an "X" was ejected?

Cartridge case X was fired, extracted, and ejected from a .380 Auto Caliber Auto Loading Weapon. Class characteristic of the markings indicate that the weapon is a Beretta Military Model 1934 or Commercial Model 934 (Couger).

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Table 4, continued

II. ADDITIONAL INFORMATION ROUTINELY DEVELOPED

- 1. Projectile marked with three digit number
 - a. Other Data

Bullet 193A is a .38 Special lead bullet fired in a revolver whose barrel is rifled five lands and grooves inclined to the right.

b. Indicate Methods

Visual and microscopic examination revealed:

- Contour, number and spacing of cannelures, and shape of base corresponds with 158 grain lead .38 Special bullet manufactured by "R-P".
- Bullet reveals slight cylinder misalignment and skid marks typical of revolvers.
- 3. Examination reveals rifling impressions of five lands and grooves inclined to the right.
- 4. The approximately equal distant land and groove widths conform with known fired standards from Smith & Wesson revolvers and other weapons of foreign manufacture when compared under comparison microscope.
- 5. Bullet weight is 157.6 grains.

2. Cartridge case marked with three digit number

de Other Data

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Cartridge case 200 is a .38 Special Caliber "R-P" discharged cartridge case fired in a revolver chambered for .38 Special or .357 Magnum cartridges. Visual and microscopic examination revealed: 1. Manufacturer's markings - "R-P" and "38 SPL"

- 2. Firing pin and breech face impressions
- consistent with revolver.
- 3. No extractor or ejector marks were observed.

b. Indicate Methods (none listed)

Table 4, continued

3. Unmarked Projectile

a. Other Data

The unmarked bullet is a .380 Auto Caliber metal jacketed bullet fired in a .380 Auto Caliber Auto Loading weapon whose bullet is rifled six lands and grooves inclined to the right. Visual and microscopic examination revealed:

- Contour and shape of base conforms with 95 grain metal jacketed .380 Auto bullet manufactured by "W-W".
- 2. Bullet reveals relatively even height of rifling typical of auto loading weapons.
- Examination reveals rifling impressions of six lands and grooves inclined to the right.
- 4. The rifling corresponds to Beretta and other weapons of foreign and domestic manufacture when compared with known fired standards under the comparison microscope.
- 5. Bullet weight is 95.1 grains.
- b. Indicate Methods (none listed)

Cartridge Case marked with an "X"

a. Other Data

Cartridge Case X is a .380 Auto Caliber "W-W" discharged cartridge case fired in a .380 Auto Caliber Auto Loading weapon. Class Characteristics indicate a Beretta Military Model 1934 or Commercial Model 934 (Couger) fired this cartridge. Visual and microscopic examination revealed: 1. Manufacturer's markings - "W-W" and "380 AUTO". 2. The extractor is at 12 O'CLOCK. 3. The ejector is at 6 O'CLOCK. 4. The firing pin impression is round and flat.

b. Indicate Methods (none listed) Table 4, continued

Laboratory 2

I. PROBABLE WEAPON(S)

 What is the most probable weapon(s) from which the projectile identified with a three digit number was fired?

Among the weapons from which this bullet could have been fired are models of Smith & Wesson, INA, Ruger and numerous Spanish-made revolvers chambered for the .38 Special, .38-44 S & W Special or .357 Magnum cartridge.

2. What is the most probable weapon(s) from which the <u>cartridge case</u> identified with a <u>three digit number</u> was ejected?

Any .38 caliber revolver chambered for .38 Special, .38-44 S&W Special or .357 Magnum cartridge.

3. What is the most probable weapon(s) from which the projectile which has no <u>special "test" marks</u> was fired?

Among the weapons which produce rifling impressions like those in this bullet are models of Beretta, MAB, Savage, Hi-Standard, Browning, Astra, Llama, Star, Walther, CZ, Ortgies and Spanish "Buffalo" semi-automatic pistols chambered for the .38 Auto (9mm Corto) cartridge.

4. What is the most probable weapon(s) from which the cartridge case identified with an "X" was fired?

The characteristics of the mechanism marks present on this cartridge case would indicate it had been fired in one of several models of 1380 Auto (9mm Corto) Beretta semi-automatic pistol (or possibly others).

II. ADDITIONAL INFORMATION ROUTINELY DEVELOPED

1. Projectile marked with three digit number

a. Other Data

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5 lands and grooves, right twist Consistent with 158 grain round Nose lead bullet of Remington-Peters manufacture Land imp. .10" Groove imp. .115"

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Table 4, continued

b. Indicate Methods

Microscopic examination and comparison with known references

Measurements-steel rule under binocular microscope (alternative-.001" reticle in binocular microscope -tool makers microscope -rule under comparison microscope)

2. Cartridge case marked with three digit number

a. Other Data

Revolver type cartridge case, no extractor or ejector marks noted. Round firing pin impression. Nickel case. R-P headstamp.

b. Indicate Methods

Microscopic examination.

- 3. Unmarked Projectile
 - a. Other Data

Six lands and grooves, right twist Full jacketed bullet Land imp. .045-.05 Groove imp. .13

b. Indicate Methods

Microscopic examination Measurements: steel rule, .001" scale under binocular microscope (alternative meas: .001" reticle in binocular microscope or rule under comparison microscope)

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- 4. Cartridge case marked with an "X"
 - a. Other Data

180° between extractor and ejector locations Circular, flat nose firing pin impression W-W headstamp

b. Indicate Methods

Microscopic examination

Table 4, continued

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Laboratory 3

- I. PROBABLE WEAPON (S)
 - What is the most probable weapon(s) from which the projectile identified with a three digit number was fired?

Class Characteristics of projectiles 352A and 119A are the same and would be classified as R (revolvers) .38 Special (caliber) 5 (Lands and Grooves) R (right hand twist) or R-38 Spl-5-R. The most common weapons bearing this particular class characteristic are of Smith and Wesson manufacture. However, there are several other weapons having this basic characteristic. To exclude any from consideration would be an error. Determination of Model would not be appropriate based on the tests examined. Gas cutting and slippage could indicate a slightly oversize barrel or undersize projectile.

 What is the most probable weapon(s) from which the cartridge case identified with three digit number was ejected?

Examination of cartridge cases 386 and 197 would indicate they had been fired in a weapon classed R (revolver) 39 special (caliber) 0 (this position not applicable to discharged cartridge cases) O (also not appli/able to discharge cartridge cases) or R-38 Sp1-0-0 Examination of breech face and firing pin impress in indicate that they were fired in a revolver. the firing pin of which has a ball tip and is probably pivoted within the weapon hammer. Indication of draw marks on the body of the cartridge cases could give an indication of them being re-loaded, however comparison with factory new ammunition indicates it to have occurred at time of manufacture. Absence of a slight ring, just above the base would also exclude the possibility of re-loaded ammunition as opposed to factory new ammunition.

3. What is the most probable weapon(s) from which the projectile which has no special "test" marks was fired?

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Table 4, continued

Class characteristics of the two projectiles with no special test marks are the same and would be classed as A (automatic).380 (caliber) 6 (Lands and Grooves) R (right hand twist) or A-380-6-R. Many semi-automatic pistols bear this particular class characteristic and none could be eliminated without examination of each weapon for individual characteristics which are needed for a positive identification.

4. What is the most probable weapon(s) from which the cartridge case identified with an "X" was ejected?

Class characteristics of the cartridge cases marked X would read A (automatic) .380 (caliber) 0 (no designation) O (no designation) or A-380-0-0. Examination of the tests against known standards indicates a probability of a P. Beretta Model 1934, based on class character of the breech face and the location of extractor and ejector marks. However, again there are many weapons having the basic class characteristics of A-380-0-0 and none could be eliminated based on a probability of manufacture.

- **II. ADDITIONAL INFORMATION ROUTINELY DEVELOPED**
 - 1. Projectile marked with three digit number
 - a. Other Data for projectiles 352 A and 119 A

.38 Spl. with 5 lands and grooves, right hand twist Weight 157 7/8 grains Two knulled cannelures Lead finish Round nose lead Smokeless powder Remington-Peters make

b. Indicate Methods

Comparison microscope used to compare with known standards

- 2. Cartridge case marked with three digit number
 - a. Other Data for cartridge cases 386 and 197

.38 Special, centerfire, rim type, plate finish Smokeless powder

Table 4, continued

b. Indicate Methods

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Use of comparison microscope in comparing with known standards

- 3. Projectiles with no special test marks
 - a. Other Data

.380 A, 6 lands and grooves, right hand twist 94 7/8 grains, copper finish

b. Indicate Methods

Use of comparison microscope in comparing tests with known standards

Cartridge cases marked X

a. Other Data

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4.

.380 A, Center fire, rimless, smokeless powder Copper finish

b. Indicate Methods

Use of comparison microscope in comparing tests with known standards

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Table 5

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Characteristics Derived From Laboratory Responses and the Number of Labs Reporting Each Characteristic The total number of laboratories returning data is 121. Projectile, Three Digits revolver 115

revolver 38 caliber special 5 lands right twist	115 120 109 118 118
Cartridge Case, Three Digits	
revolver 38 caliber special	106 115 105
Projectile, No Marks	. * · · · ·
automatic 380 caliber 6 lands right twist	109 116 116 117
Cartridge Case, "X" Mark	
automatic	107

108

380 caliber

Table 6

12

REVOLVERS NAMED FOR PROJECTILE (ITEM 1)

Number of Laboratories Reporting This Name For Projectile Smith & Wesson 111 Sturm Ruger 36 I.N.A. (Brazilian) 16 Harrington & Richardson 14 Iver Johnson 11 Hopkins & Allen 7 Meriden Fire Arms Co. 6 Llama (Gabilondo y Cia Victoria-Llama) 5 Eibar (Spanish) 4 Forehand & Wadsworth 3 Ruby 3 Orbea (Spanish) 2 "Alamo Ranger" 2 Alfa 1 Century Arms (Spanish) 1 Destroyer (Spanish) 1 Eastern Arms Co. 1 ß Gabilondo y Cia 1 Garantazado 1 Guisasula Bros. & Co., G.H. (Spanish) 1 Great Western Derringer 1 Ind. DeArms 1 Merwin-Hubert 1 Miroku (Japanese) 1 Rossi 1 SEN 1 Sociadad Alpha 1

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Any .38 SPL Caliber

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REVOLVERS NAMED FOR CARTRIDGE CASE (ITEM 2)

Number of Laboratories Reporting This Name For Cartridge

36

14

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J Smith & Wesson 13 Colt Sturm Ruger I.N.A. (Brazilian) Rohm Rossi EIG Llama (Gabilondo y Cia Victoria-Llama) Taurus Arminus Charter Arms Hawes Harrington & Richardson Iver Johnson Miroku (Japanese) Andrew Fyrderg & Co. Astra Astra-Unceta y Cia Century Arms (Spanish) Dardick Destroyer (Spanish) Fabric DeArms Garatazades Eibar (Spanish) Forehand & Wadsworth Garantazado Garate Bros. & Co., G.H. (Spanish) J.P. Gawer G. H. Revolver (Spain) Great Western Herters Hopkins & Allen lly Hunter Interarms Meriden Fire Arms Co. Merril Orbea (Spanish) Remington & Sons Ruby Sociadad Alpha Spesco Star TAC (Spanish) Thompson-Center Arms Titan A. Uberti and Co. Dan Wesson

- 1 A

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13.

Any .38 SPL

Table 8

AUTOMATICS NAMED FOR PROJECTILE (ITEM 3)

Number of Laboratories Reporting This Name For Projectile

90

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52

30

29

20

19

16

14

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Beretta Walther Astra Ceska Zbrojovka (Czech) Savage HI Standard Bernardelli Star Llama Browning Ortgies Bayard MAB Frommer Kirikkale Mauser Webley & Scott Bergman Galesi (Italian) Tauler 8 Bufalo (Spanish) Campo-Giro Colt Luger Radom Republic Espanola Webley Basque Baynard Corto Echasa (Spanish) Fast Eibar Glisenti Handy Harrington & Richardson Heckler & Koch Hijos do Calixto Manurhin Nickl Remington-Arms Rep. Espanda Smith & Wesson Sterling Suomi Yovanovitch à Any .380 Auto

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AUTOMATICS NAMED FOR CARTRIDGE CASE (ITEM 4)

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	Reportin	f Laboratories g This Name For Cartridge
Beretta		69
Astra		18
Walther		16
Savage		8
Browning		7
Llama		7
Bernardelli		6
Ceska Zbrojovka		6
HI Standard		3
Remington		3
Colt		2
Frommer		2
Kirikkale		2
MAB		2
Mauser		2
Ortgies		2
Star		2
Tauler		2
Bergman		1
Brixia		1
Bufalo (Spanish)		
Campo-Giro		1
DWA		1
Fimaru		1
Fimaru-Fegyuer		1
Galesi (Italian)	na an a	1
Handy Lahti		ļ
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Luger Mugica		1
Radom		1 1
Sauer		
SIG		1
Smith & Wesson		i 1. an an Anna Anna Anna An 1. an Anna Anna Anna Anna Anna Anna Anna
Sterling		1
Suomi		1 1
Any .380 Auto		41
		and the second

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Standard Deviation = 0.004

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GROOVE WID	HS OF .38 SPECIAL PR	OJECTILE
Measured Groove Widths Projectiles, In		per of Laboratories porting This Width
0.100 .102 .104		2 2 1 2
.107 .108 .109 .110		1 1 3
.111 .112 .113 .114		2 3 3 4
.115 .116 .117 .120		9 3 3
.121 .122		1 1 1
Average = 0.112 Standard Deviation = 0.005	Total Laboratori Reporting	es = 43

$-\mathbf{T}$	ab	le	1	3

DIAMETER	OF	.380	AUTOMATIC	PROJECTILE
----------	----	------	-----------	------------

0

4

0

Measured Di itomatic Pro-				Diameter
	0.345		1	
	.350		2	n an an thair an th
	.351		5	
	.352		1	
	.353		2	
e se de la sector de	.354		6	
	.355	and a second	13	
ang	.356		9	
	.357		10	
	.358		10	
	.359	$\frac{\partial f}{\partial t} = \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} + \frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right] + \frac{\partial f}{\partial t} \left[\frac{\partial f}{\partial t} \right$	6	
	.360		1	
	.362		1	
-	.364			
Average =	0.356	Total Laboratories		
		Reporting	= 68	
Standard				

17.

LAND WIDTHS	OF	.380 AUTOMATIC PROJECTILE
Measured Land Widths Automatic Projectiles,		
0.045 .046 .047 .048 .049 .050 .051 .052 .053 .055 .056 .059 .061		4 4 6 5 8 9 9 6 6 2 2 2 2 2 2 2 2
Average = 0.051 Standard Deviation = 0.004		Total Laboratories Reporting = 60

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Table 14

18.

Table 15

GROOVE WIDTH OF .380 AUTOMATIC PROJECTILE

Measured Groov Automatic Proje			Number of Reporting		
	0.123 .124 .125 .126 .127 .128 .129 .130 .131 .132 .133 .134 .135 .140			1 2 1 3 4 7 6 1 2 1 1 2 1	
Average = Standard Deviation =		Total Labora Reporting		33	

Та	1 1	0	- 7	.6
1. CL	U I	,е	1	.0

Class Characteristics Derived From Laboratory Responses

	CARTRIDGE	DDA IBCETT E	CARTRIDGE
LABPROJECTILECODETHREE DIGITS	CASE THREE DIGITS	PROJECTILE NO MARKS	CASE <u>MARKED "X"</u>
A703 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A707 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A708 R 5-R	R-38-SPL	A-380-6-R	A-380
A710 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A712 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A713 R-38-SPL-5-R	R-38-SPL	A-380-6-R	Not routine
A715 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A717 R-38-SPL-5-R	R-38	A-380-6-R	A-9mm
A718 R-38-SPL-5 R	R-38-SPL	A-380-6-R	A-380
A724 R-38-SPL-5-R	38-SPL	A-380 R	A-380
A727 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A729 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A731 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A736 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A738 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A739 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A740 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A742 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A745 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A=380
A746 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A747 R-38-SPL-5-R	R-38-SPL	A-380-6-R	
A748 38 5-R	38	A-380-6-R	A-380
A750 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A751 R-38 5-R	Not routine	A-380-6-R	Not routine
A754 R-38-SPL-5-R	R	A-380-6-R	A-380
A755 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A757 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A760 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A761 R-38 5-R	R-38	A-380-6-R	9mm
A762 R-38 5-R	R-38	A-380-6-R	A-380
A763 R-38-SPL	R-38-SPL	A-380	Α
A765 R-38-SPL-5-R	R-38	A-380-6-R	A-380
A766 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
"A768 R-38-SPL-5-R	R-38-SPL	A-380-6-R	
["] A769 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A772 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A777 R-38-SPL-5-R	• R-38-SPL	A-380-6-R	A-380
A779 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A783 // R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A784 R-38-SPL-5-R	R−38−SPL °	A-380-6-R	A-380
A785 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A786 R-38-SPL-5-R	R-38-SPL	380-6-R	380
A787 R-38-SPL-5-R	R-38-SPL	6-R	A-380
A789 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A790 R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380





Class Characteristics Derived From Laboratory Responses

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LAB <u>CODE</u>	PROJECTILE THREE DIGITS	CARTRIDGE CASE <u>THREE DIGITS</u>	• PROJECTILE NO_MARKS	CARTRIDGE CASE - MARKED "X"
A792 A794	R-38-SPL-5-R R-38-SPL-5-R	R-38-SPL R-38-SPL	A-380-6-R A-380-6-R	A-380 A-380
A795 A797	R-38-SPL-5-R R-38-SPL-5-R R-38-SPL-5-R	R-38-SPL R-38-SPL R-38-SPL	380-6-R A-380-6-R	380 A-380
A798 A799	R-38-SPL-5-R	R-38-SPL R-38-SPL	A-380-6-R A-380-6-R	A-380 A-380
A802	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A805	R-38-SPL-5-R		A-380-6-R	A-380
A813	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A
A814	R-38 5-R	R-38	380-6-R	A-380
A815	R-38-SPL-5-R		A-380-6-R	A-380
A818	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A820	R-38-SPL-5-R		A-380-6-R	
A823	R-38 5-R	38-SPL	A-380-6-R	A-380 A-380
A827	R-38-SPL-5-R	R-38-SPL	A-380-6-R	
A830	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A831	R-38-SPL-5-R	R38-SPL	A-380-6-R	A-380
A833	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A835	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A837	R-38-SPL-5-R	R-38-SPL	380-6-R	380
A838	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A839	R-38 5-R	R-38-SPL	A-380-6-R	A-380
A842	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A847	R-38-SPL-5-R	R-38-SPL	A-380-6-R A-380-6-R	A-380 A-380
A848	R-38-SPL-5-R	R-38-SPL		<i>u</i> ,
A852	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A853	R-38-SPL-5-R	R-38	Á-380-6-R	A-380
A854	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380 A-380
A855	R-38-SPL-5-R	R-38-SPL	A-380-6-R A-380-6-R	
A856	R-38-SPL-5-R	R		9mm
A860	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A861	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A866	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A868	R-38-SPL-5-R	38-SPL	A-380-6-R	A-380 A-380
A869	38-SPL-5-R	R-38-SPL	A-380-6-R	
A873	R-38-SPL-5-R	38-SPL	380-6-R	380
A874	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A880	R-38-SPL-5-R	R-38→SPL	A-380-6-R	A-380
A883	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A884	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A888	R-38-SPL-5-R	R-38-SPL	A-380-6-R	
A891	R-38-SPL-5-R	8 R-38-SPL	A-380-6-R	A-380
A892	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A894	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380 A-380
A895	R-38-SPL-5-R	R-38-SPL	6-R	A-30V

Table 16, Continued

Class Characteristics Derived From Laboratory Responses

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LAB <u>CODE</u>	PROJECTILE THREE DIGITS	CARTRIDGE CASE THREE DIGITS	PROJECTILE NO MARKS	CARTRIDGE CASE MARKED "X"
A897	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A899	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A902	R-38-SPL	R-38-SPL	A-380	A-380
	R-38 5-R	R-38-SPL	A 6-R	A
A904	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A908	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A915	R-38-SPL	R-38-SPL	A-380-6-R	A-380
A920	38-SPL-5-R	38-SPL	A-380-6-R	A-380
A923	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A925	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
n an trainin an trainn Saith an trainn				
A927	R-38-SPL-5-R	38-SPL	A-380-6-R	A-380
A935	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A938	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A942	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A944	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A958	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A961	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A962	38,455-5,6-R	38,455		
A969	38 5-R	38-SPL	380-6-R	380
A970	R-38-SPL-5-R	R-38-SPL	A-380-6-R	_A−380
Ο.				an a
A974	R-38-SPL-5-R	38-SPL	A-380-6-R	A-380
A975	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A978	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A979	R-38-SPL-5-R	R-38	A-380-6-R	A-380
A980	R-38-SPL-5-R	R-38-SPL	380-6-R	A-380
A984	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380
A984 A985	38	к-56-агц 38	A-580-0-K 9mm	A-380 9mm
A985 A989	R-38 5-R	R-38-SPL	A-380-6-R	A-380
A909 A994	R-38-SPE-5-R	R-38-SPL	A-380-6-R	A-380 A-380
A995	R-38-SPL-5-R	R-38-SPL	A-380-6-R	A-380 A-380
	V-70.0T T-7-V	V7C7T	N-0-00C-W	A-200
A998	R-38-SPL-5-R	R-38-SPL	380-6-R	A-380



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Table 17

RESPONSES TO QUESTION 1

			e de la companya de l
T.A	B	LABORATORY RESPONSES TO PROBABLE WEAPON (S) FOR	
	DE	PROJECTILE IDENTIFIED WITH A THREE DIGIT NUMBER	
0,0			A740
2	703	S&W .38 spl (any model) revolver	
	0.0	S&W .357 mag (any model) revolver	A742
	707	.38 caliber special Smith & Wesson revolver	
	708	Smith & Wesson .38 special (possibly 6 inch barrel)	
	, vu	Smith & Wesson .357 (possibly 6 inch barrel)	
	710	revolver, Smith & Wesson, cal357" (.38 special)	A745
	712	weapons known to have these rifling characteristics are:	41/30
. A	116	Smith & Wesson revolvers caliber 38 special and 357 mag	
		Ruger Security Six revolver caliber 38 Spl and 357 mag	
	1.1.1.1.1.1.1		
	27.7	Ruger Speed Six revolver caliber 357 mag The most probable weapons from which this projectile	
; A	713		A746
		was fired are Smith and Wesson brand revolvers in .38	A740
		special and .357 magnum calibers and Sturm Ruger	
		double action revolvers in .38 special and .357 magnum	A747
		calibers.	A141
A	715	Revolver, Smith & Wesson, caliber .38 special	
		Foreign Made copies of Smith & Wesson revolvers	
	717	Revolver-Smith & Wesson-Special38 Caliber	
A	718	The most probable weapon would be a Smith & Wesson	A748
		revolver, either .38 special or .357 magnum (Models 10,	
		12, 14, 15, 27, 28, 36, 37, 38, 60, 64, 66, 67).	A750
		However, a .38 S&W caliber revolver could have fired	
		projectile, as well as certain .38 revolvers	***
		manufacturered by Iver Johnson, H&R, and Forehand &	A751
		Wadsworth. These last are included because the	A754
		rifling is not as sharp as that on a new gun - the	a de la companya de l
		projectile might well have been fired by an old	
		model revolver.	
A	724	Smith & Wesson Special Det Special, D.A., Mil and	A755
		Police, Combat masterpiece, safety hammerless	A757
. A	727	This is consistent with S&W 38 Spec., 357 mag.	
	<u>. 11</u>	Also there is a Spanish model similar to S&W	
A	729	.38 Special revolver	A760
	- 1 	possible weapon normally not reported	
A	731	Revolver, Smith & Wesson, M&P - Combat Masterpiece - etc.,	
		38 Special	
A	736	This projectile could have been fired from a	
Ø. 1. 1		domestically manufactured Smith & Wesson .38 Special	A761
	· · · · ·	or .357 Magnum caliber revolver; the Ruger Security	a shekara shekara shekara shekara shekar
		Six, .38 Special or .357 Magnum caliber revolver or	
		foreign manufactured weapons such as the Brazilian	
		I.N.A., Japanese Miruko, or the Rossi .38 Special	
		caliber revolvers. However, no suspected firearm should	
		be overlooked.	A762
		지수는 것 같은 것 같은 것이 없는 것이 있는 것 같이 가지 않는 것 같이 있는 것이 같이 있는 것이 같이 있는 것이 없다.	A763

Table 17, Continued

A738	Revolver; S & W (prob); Model - Unk.; 38 Spl. or 357 Mag.
A739	Revolver; Smith & Wesson; Model - No opinion; .38 Special This type information is not normally included in our
	written lab report, but is given orally to the
	investigators as a possible make.
A740	.38 special revolver such as Smith & Wesson or any of that type.
A742	Many models of .38 special caliber and .357 magnum
	caliber Smith and Wesson revolvers; .38 special
	caliber Llama revolver and .38 special caliber I.N.A.
	revolvers.
A745	The most common weapons from which this bullet could
	have been fired include all models of Smith & Wesson
	and Ruger double-action revolvers chambered for .38
	Special or .357 Magnum cartridges. This does not
	necessarily mean that the bullet could not have been
	fired from some other make of gun.
A746	Resalver; Smith and Wesson; Most all Models, Caliber-
	38 special or .357 magnum.
	Other possibilities both American and Foreign do exist.
A747	typical of revolvers by S&W, I.N.A. and Spanish copies
	of the SaW, in calibers .38 Special or .357 Magnum.
	Since these are not necessarily the only brands
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	possibly involved, any weapon of the given specifications
	should be considered for submission to the Laboratory.
A748	Smith & Wesson numerous models 38 caliber
A750	revolver; Smith & Wesson. INA is the second most
	probable weapon; model - consistent with any modern
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	S&W .38 SPL or .357 magnum; .38 Special or .357 magnum
A751	Ruger; Smith and Wesson
A754	Most probably fired from a revolver of .38 Special
	caliber and of Smith & Wesson manufacture.
	Certain Spanish weapons (essentially S&W copies)
	cannot be eliminated.
A755	.38 Special cal. Smith & Wesson revolver
A757	Revolver: .38 Spl. or .357 mag.
	Smith and Wesson Revolver or various Spanish copies
1700	of the S & W Revolver.; Various models
A760	Revolver - Smith and Wesson - Various Models - 38 Spl
	Revolver - Ruger - Police Service 6 - 38 Spl
	Revolver - Ruger - Security 6 - 38 Spl
at an	Revolver - Century Arms Co. (Spanish) - 38 Spl
A761	Revolver - Destroyer (Spanish) - 38 Spl
A/OI	S&W .357 Mag. Mod 28 Highway Patrolman
	S&W .38 Military Police
	H&R .38 Model Auto Eject
	Iver Johnson .38 Model Safety Hammer
	H&R Police Model H&R Double Action
A762	
A763	Revolver, Smith & Wesson, 38 Caliber
-97VJ	revolver; possible make is Smith & Wesson; 38 Special

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Table 1	7. Con	tinued
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A765	Smith and Wesson - Military and Police Model .38
	Smith and Wesson - DA 3rd Model .38
	Smith and Wesson - Handejector .38
	Smith and Wesson - S & W Special .38
L.	Smith and Wesson - Hamerless .38
	Hopkins and Allen Pocket Revolver .38
	Guisasula Brothers and Co. GH Revolver .38
A766	Smith & Wesson 38 spl revolver or .357 Mag
A768	Revolver - Smith & Wesson, Practically any model except
	Model 2 or Model 2 1/2, 38 special or 357 magnum caliber
A769	.38 special caliber Llama revolver, Martial Model;
	.38 special and .357 magnum caliber Smith & Wesson
	revolvers most models; all .38 special and .357 magnum
	caliber firearms having similar class characteristics
	to that of the submitted bullet should be included
A772	Smith & Wesson or Smith & Wesson copy revolver of
A112	.38 Special or .357 Magnum Caliber
	.38 caliber bullet that could have been fired from
A777	
4.1	a .38 Special caliber revolver manufactured by Smith
	and Wesson, Harrington & Richardson, Hopkins & Allen,
	Iver Johnson, Meriden Fire Arms Co., or a foreign gun
	possibly manufactured in Eibar, Spain.
A779	.38 special or .357 magnum revolvers; most likely
8700	Smith and Wesson, also possible are some foreign copies.
A783	.38 Special or .357 Magnum Revolver of Smith & Wesson
2704	mfg. and some Ruger Revolvers
A784	Ruby, S & W and/or Alfa revolver; model-indeterminable
3705	.38 special caliber manufactured by Remington-Peters.
A785	Revolver; possible Smith & Wesson or some other make
	of revolver having similar rifling characteristics;
3700	.38 Special Caliber
A786	we do not have a complete firearm collection for
107	comparison
A787	Could have been fired in several models of Smith and
2700	Wesson .38 special or .357 Magnum revolvers
A789	Revolver - Smith & Wesson 38 SPL (poss 357 Magnum)
A790	.38 special caliber or .357 magnum Smith & Wesson
	revolver
A792	Most likely fired from either a Smith & Wesson or
	late model Sturm Ruger revolver, caliber 38 special or 357 magnum
A794	The most probable weapon from which this projectile was
	fired was a revolver of Smith & Wesson manufacture (a
	number of models are possible) caliber .38 Special or
	.357 Magnum. There is a possibility that the round
4	in question could have been fired in a Hopkins and Allen
	.38 Special model double action or perhaps a copy of a
	Smith & Wesson revolver having class characteristics
	approximating those of the Smith & Wesson.

lable	17,	Continued	

A795	38 spl/357 mag. revolver
A797	Smith & Wesson Revolver; Harrington & Richardson Revolver
	Hopkins & Allen Revolver; Iver Johnson Revolver;
	Noprins & Allen Revolvel, iver Jonnson Revolvel;
	Meriden Firearms Co. Revolver; Forehand & Wadsworth
	Revolver; Garantazado Revolver
A798	could have been fired from a Smith & Wesson .38 Special
	or .357 Magnum; a Ruger Security Six or Speed-Six .38
	Special or .357 Magnum
A799	Revolver type weapon; .38 Special or .357 Magnum Revolver
	with 5R rifling class characteristics; probably Smith
	with 5K TITIING Class characteristics; probably Smith
	and Wesson or possibly other foreign manufacture
	immitations with characteristics with the range of
	variation such as Gabilondo & Cia, Ruby Extra Model
	XII or other foreign immitations.
A802	Smith & Wesson - all models (Chief, airweight, M&P,
	Target - K-38's); both 38 special cal. & .357 Magnum
	cal. Revolvers; INA (Brazil) .38 special 2" - 3" bbl.s
	Revolvers; Spanish copies of Smith & Wesson Revolvers
1	
NOOF	and rifling characteristics
A805	.38 Spl. S&W revolver or foreign imitation.
A813	Revolver; .38 Special, .357 Magnum Smith & Wesson all
	models; .357 Magnum Ruger double action, Speed Six and
	Security Six revolvers.
A814	38 Cal; Revolver; Smith & Wesson
A815	38 Spl revolver; Smith & Wesson; Ruger; I.N.A.;
	Various trade name Spanish or Belgian revolvers.
A818	This projectile was most probably fired from a .38
	Special Smith & Wesson Revolver, double action; but
	apela bash a messon revolver, double action; but
	could have been fired from a .357 Magnum Smith &
A820	Wesson DA revolver, or a Spanish copy of either.
A820	S&W Mod 27 .357 Magnum
1	S&W Mod 2 .38 Special
A823	.38 caliber revolver probably either .38 cal or .357
	mag weapon; list of weapons: Smith and Wesson, INA.
	Ruger, many Spanish imports and other weapons with
	similar rifling characteristics
A827	Probable: .38 Spl. or .357 magnum Smith & Wesson revolver
	Possible: fired from Ruger .38 special or .357 Security
	Six or Speed Six
A830	
ROJU	.38 Special revolvers of following manufacture - Smith &
	Wesson; Ruger (security-Six Model); I.N.A. [(Tiger and
	Model #3) Brazilian manufacturel; Gabilondo v Cia
	Victoria-Llama (importer Staeger Arms, Inc.): many
	Spanish imports sold under various trade names
	.357 Magnum revolvers of following manufacture - all
	.357 Mag Models of Smith and Wesson
A831	38 Special Smith & Wegon worships

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Table 17, Continued

A833	5	Cal38 Special or .357 Magnum; Smith & Wesson Revolvers,
ò		Models 10,12,14,15,19,27,28,36,38,40,37,60,64,66,67;
		Ruger speed six & security six
A835		Revolver-Smith & Wesson-All models since 194338 Special
		Revolver-Spanish Made-Eibar38 Special
		Revolver-I.N.A. Brazil MfgTiger38 Special
A837		S&W 38 special or 357 magnum revolver, or the late model
		Ruger security Six Revolver; however this does exclude
	$\{r_{i}, \dots, r_{i}\}$	the possibility of other weapons with the same land &
		grooves system.
A838		probably fired in a Smith and Wesson revolver chambered
		for .38 Special or .357 Magnum cartridges. Any model
		of Smith and wesson capable of firing this ammunition
		should be considered.
A839		.38 Caliber revolver with a rifled barrel having five
		lands and grooves, right hand twist
A842		consistent with firearms of S&W, Ruger Double action
		and some Spanish copies of Saw, Ruger Bouble action
		158 gr. and shows revolver characteristics.
A847		fired in a .38 Special or a .357 Magnum revolver
A848		revolver; Smith & Wesson; .38 Special/.357 Magnum
A852		the most probable weapon is a Smith & Wesson .38 spl
A0J2		or .357 cal revolver
A853		
HOJJ		Revolver, Smith & Wesson, Model unknown; .38 caliber (38 Spl. or .357)
A854		
NO 24		Ruger, Security Six, 357 mag. revolver
		Smith & Wesson, various models, 38 and 357 mag cal
		revolvers; I.N.A38 special revolver; Orbea (Spanish) .38 Spl revolver
e '		various Spanish revolvers
A855		
A856		Revolver - Smith & Wesson - 38 Special., 357 magnum
N0.30		Most probably fired from a 0.357 magnum or 0.38 special
		caliber revolver with a barrel bearing typical Smith
A860		& Wesson rifling characteristics
NUQU		.38 special lead bullet. It bears indication of having
		been fired from a Smith and Wesson .38 special revolver.
		There does exist possibilities of weapons other than
		S & W such as the Ruger Security Six model revolver and some Spanish made revolvers.
A861		
HOOT		revolver - possibly Smith & Wesson or Spanish manufacturer -
A866		.38 cal. special
7000		.38 Spl. Revolver; most probable: S&W No. 2, DA,
		Military & Police, S&W Spl., Combat Masterpiece,
		Detective Spl., Safety Hammerless; Model 14,20,36,
1 · · ·		37,38,40; also: H&R Safety Hammer DA, Victor, American
		DA; Iver Johnson Bulldog; Meriden Firearms Co.; Eastern
		Arms Co.
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Table 17, Continued

A868	.38 special caliber projectile with rifling characteristics
NOOD	the special dense projection in the starting on the start
	of five lands and grooves inclined to the right. A list
	of probable weapons would be extensive. Any weapon
	exhibiting similar rifling characteristics should be
	submitted for comparison
A869	Most probable weapons are .357 magnum and .38 special
	caliber weapons of the following manufacturer: INA,
	S & W, Ruger, Llama
A873	
MOID	Caliber 38 special; probably a revolver possible Iver
	Johnson, Smith & Wesson, Harrington Richards
A874	38 special or 357 magnum Smith and Wesson Revolver.
	Several of the models of the 38 special and 357 magnums
	that Smith and Wesson markets fit well within these
	rifling specifications
A880	Smith & Wesson .357/.38 Revolvers
	Ruger Security Six .357/.38 Revolvers
A883	This bullet was fired from a .38 caliber revolver rifled
4003	This build was included ion a so caller revolver filled
	to Smith & Wesson specifications (5/R). The most
	probable firearms are Smith & Wesson revolvers chambered
	for the .38 Special or .357 Magnum cartridges, foreign
and the second	copies of Smith & Wesson revolvers or a Smith & Wesson
	revolver converted from .38 Smith & Wesson calibre to
	.38 Special.
A884	Revolver, solid frame type probably, Smith & Wesson
	.38 Special or .357 Mag.
A888	revolver; Smith & Wesson, Ruger, INA; .38 Spl. or
11000	
	.357 Mag. Cal.
A891	revolver, Smith & Wesson, caliber .38 Special or .357
	Magnum; there are approximately a dozen models of Smith
	& Wesson revolvers all having similar rifling
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	specifications which could have fired this projectile.
A892	fired in a revolver having five lands and grooves,
AUJ2	
	right twist, and chambered for .38 Special or .357
and the state of	Magnum cartridges. The rifling impressions are
1	consistent with those of projectiles fired in many
	Smith & Wesson revolvers and Single-Six and Speed-Six
3004	revolvers by Sturm, Ruger and Co.
A894	a) Revolver Smith & Wesson Model 27 .357 caliber
	(magnum); (b) Revolver Smith & Wesson Model 28 .357
	taliber (magnum); (c) Revolver Smith & Wesson Model 10
	.38 special caliber
A895	
25430	Harrington & Richardson revolver, Merwin-Hubert revolver,
	Meriden Fire Arms Co. (Eastern Arms Co.) & (Howard Arms
	Co.), Sociedad Alfa (Alpha Revolver). Probably 38 spl-
A897	could have been fired from several makes of revolvers,
	the most probable of which are .38 Special Caliber of
2000	.357 Magnum caliber revolvers made by Smith & Wesson.
A899	Smith & Wesson revolver of following models: 357
	Magnum: 27 Magnum, (357 Magnum), 28 Magnum (Highway
5 - C C C.	Patrol): .38 Spl: M & P 12 (airweight). 37 (Chiefle
2 C	Patrol); .38 Spl: M & P 12 (airweight), 37 (Chief's Spl.), M & P 1905, M & P 10-6, M & P 10, M & P 122, 14,
	14-2, 20, 36, 37 (airweight), 38 (bodyguard), 38 (airweight)
ter de la companya de	40 (centennial), 42, 49, 38/44 (heavyduty), 38/44
	outdoorsman).
	그의 제가 제품을 전쟁적적 적용 이용을 많이 있는 것을 가장을 알려야 할 수 있는 것을 가지 않는 것을 하는 것을 많이 하는 것을 했다.

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Table 17, Continued

A927

- A902 laboratory will not identify "most probable weapon(s)"; customarily will provide a list of <u>possible</u> weapons with the notation that such list is <u>not all</u> inclusive. <u>Possible</u> firearms <u>could</u> include: Smith and Wesson various models revolvers .38 Special Harrington and Richardson various models revolvers .357 magnum, .38 S&W; Iver Johnson various models revolvers .38 S&W;
- A903 Most probable weapon is .38 caliber Smith & Wesson revolver, unable to determine model. A904 S&W Revolvers models 10, 12, 13, 14, 15, 19, 27, 29,
- A904 S&W Revolvers models 10, 12, 13, 14, 15, 19, 27, 28, 36, 37, 38, 60, 64, 65, 66, 67. S&W auto loader Model 52 Ruger Blackhawk .357 mag, Security-Six and Speed-Six .38 spl & .357 mag revolvers; INA Special #1 .38 Special Revolver; Iver Johnson .38 Special Revolvers caliber .38 Class, also .357 Mag, class and could have been discharged from any of the following revolvers: Sturm Ruger Model Speed Six .38 Spl. and .357 Mag. Sturm Ruger Model Security Six .38 Spl. and .357 Mag. Sturm Ruger Models 12, 10, 27, 10HB, 14, 19, 15, 66, 38, 67, 36, 37, 42, M60, M64 Model since 1943 Other Foreign Mfg. Firearms made over the above listed patents.
- A915 Most probable firearm would be Smith & Wesson revolver in .357 magnum caliber or .38 special caliber. However, a Spanish Eibar .38 special caliber firearm and the Ruger Security and Speed Sixes have rifling specifications of five lands and grooves with a right twist, therefore, no. .38 caliber firearm with 5-R rifling should be overlooked.
 A920 .38 Caliber Bullet; list of weapons which could have fired this projectile is extensive. Any .38 Caliber weapon
 - related to this investigation should be submitted for Comparison.
- A923 most likely fired from a revolver with rifling characteristics consistent with those manufactured by Smith & Wesson and also with some foreign copies of Smith & Wesson revolvers. The Bullet Specimen is caliber .38 special.
 A925 Any Smith & Wesson .38 special or .257 mercury revolvers.
 - Any Smith & Wesson .38 special or .357 magnum revolver. Late Ruger .38 Special or .357 revolver. Llama .38 special revolvers. Possibly some Spanish imitations of Smith & Wesson revolvers. There are possibly other weapons which could have fired this missile but the rarity of these makes this unlikely.
 - .38 special caliber; Possible weapons .357 caliber and .38 caliber weapons; Most probable weapons - Smith and Wesson .357 caliber weapons, models 27 and 28, also Smith and Wesson .38 caliber weapons.

Table 17, Continued

A961

A962

A935 Caliber 38 Special or Caliber 357 Magnum revolvers -Smith & Wesson, Harrington & Richardson, INA Tiger, SEN, Ruby, Eibars (Spain), Alamo Ranger, Ind. DeArmes, Orbea Bros., Great Western Derringer, and others. \mathcal{O}

- A938 .38 Special; Probable weapons: Smith & Wesson, Brazilian INA, Spanish Copies of Smith & Wesson, New Ruger Security Six
- A942 most probably fired from a Smith & Wesson revolver of .38 Special or .357 Magnum caliber. Unable to determine model number as the characteristics are similar in most models of Smith & Wesson revolvers.
- A944 .38 caliber class (to include .357 Mag.) and could possibly have been discharged from any of the following revolvers: Sturm Ruger Model Speed Six .38 Spl. .357 Mag.; Sturm Ruger Model Security Six .38 Spl. .357 Mag.; Smith & Wesson Models 12, 27, 10, 10HB, 27, 28, 14, 19, 15, 66, 38, 67, 36, 37, 42, M60, M64 All .357 MAG. & .38 Spl. Models since 1943; Other foreign manufactured firearms made over the above patents.
 A958
 - "It is our opinion that this bullet was fired from a weapon capable of chambering and firing the .38 (Special) caliber cartridge and which exhibit five land and groove impressions inclined to the right. Due to the fact that there are so many weapons now in existence whose rifling characteristics (such as number, width and direction of rifling) are not known to us and makes of weapons not known to us and that we have no fired specimens in our reference file, we feel it is too speculative and may possibly cause you to be directed toward the wrong weapon or away from the correct make or model of weapons; therefore, we have no opinion as to the correct make and/or model of weapons from which this bullet was fired. It is suggested that any weapon which may come to your attention or you wish to, be forwarded to this office for comparison with this bullet."

caliber .38 class and could have been discharged from the following makes of revolvers:

Smith W Wesson Calibers: .357 Mag. and .38 Special Models: 10, 10HB, 12, 14, 15, 19, 20, 23, 27, 28, 36, 37, 38, 40, 42, 49, 60, 64, 64HB and 67

Sturm, Ruger Calibers: .357 Mag. and .38 Special

Models: Speed-Six and Security-Six.

Other foreign makes, made over the above listed patents. Forehand and Wadsworth Bull Dog; Harrington and Richardson D.A., American D.A., 1904, Hammerless; Hopkins and Allen D.A. Rev., D.A.-1893; Iver Johnson Arms American Bull Dog; Smith & Wesson various models.

A969 .38 Cal Smith & Wesson

A970 Revolver, S & W, .38 Spl

A974 Smith & Wesson or Ruger Revolvers in Caliber .38 or .357 Magnum (Rugers mfd. After 1972 with 5 land and grooves, right twist.)

Table	17,	Conti	nued
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A	975		Revolver Smith & Wesson .38 special/.357 magnum
		·	Revolver Brazilian I.N.A38 special/.357 magnum
			Revolver Ruger .38 special/.357 magnum
A	978		fired from a caliber or 357 magnum revolver rifled
••			with 5 lands and 5 grooves right hand twist. Among
			some of the weapons so rifled are those manufactured
			by the following: Smith & Wesson, All 357 & 38 caliber
			models since 1943; Strum Ruger, Security Six Models;
			Harrington & Richardson; Iver Johnson, & Meriden Firearms
A	979		Smith & Wesson - ,38, .38 Special & .357 Magnum -
			PROBABLE; POSSIBLE - Harrington & Richardson .38,
			Hopkins & Allen .38
A	980		Any .38 Special/.357 Magnum caliber revolver with
			Smith & Wesson type rifling. (Equal land and groove
			dimensions) Make and model unknown.
A	984		Principal suspect weapons (in order of probability)
			(1) Smith Wesson .38 Special and .357 Magnum revolvers,
			(2) Ruger .38 Special and .357 Magnum Double Action
			Revolvers, and (3) Possibly some Spanish-made revolver
		1.1	with "S&W" type rifling in .38 Special caliber
A	985		.38 caliber Smith & Wesson or H&R
A	989		Smith and Wesson models 10, 15, 36, and other Smith
			and Wesson models, INA or Ruger, .38 caliber 158 grain.
A	994		(Handweapon) Revolver and or pistol, Make S&W (model)
			M&P, S&W Special, Combat Masterpiece, Detective Spl.
			(Models) #36, 37, 38, 40, 27, 19, 28, etc. Eibar,
			Spain (Model) "Apache", Harrington & Richardson, Iver
			Johnson Arms and Cycle Works, Hopkins and Allen, Meriden
			Fire Arms Co., Eibar, Spain (Model) O.H. and "Alfa"
			and the "Alamo Ranger" Manufacturer Unknown (Spanish),
			.38 Caliber (Any revolver and or pistol with the same
			f ly characteristics of that .38 Caliber pellet
			W h was submitted.)
A	995		The probable weapons are 38 Spl or .357 Magnum caliber
			Smith and Wesson Revolvers and some Sturm Ruger Revolvers

A998

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Smith and Wesson Revolvers and some Sturm Ruger Revolver Revolver - Smith & Wesson - Many Models - .38 Special

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RESPONSES TO QUESTION 2

LAB LABORATORY RESPONSES TO PROBABLE WEAPON(S) FOR CODE CARTRIDGE CASE IDENTIFIED WITH A THREE DIGIT NUMBER

A703	Any	7.38 spl	cal. re	volver			
A707	.38	3 Caliber	Special	Revolver	(Smith	& Wesson	is possible)
A708	38	Special (or .357	Revolver	possibly	Smith &	Wesson

- A710 6 .38 Cal. revolver chambered for the .38 S&W Special or .357 S&W Magnum ctg.
- A712 The cartridge case is a Remington/Peters caliber 38 SPL case and is consistent with having been fired in a revolver.
- A713 The most probable weapons from which this cartridge case was "ejected" are .38 special and .357 magnum caliber revolvers. Some target-type semi-auto pistols (e.g., S&W .38 Master) are possible but unlikely since I found no extractor, ejector or breech marks of significance.
 A715 Revolver; .38 special
- A717 .38 Cal. Revolver
- A718 The cartridge case appears to have been fired from a non-automatic type weapon. As such, a weapon, from a .38-.357 DA or SA revolver, to a .38-.357 single shot pistol, to a .38-.357 derringer to a .38-.357 carbine or single shot rifle could have been used. The shell does appear to have been reloaded. The firing pin impression appears unique enough to compare, as well as the breech face markings.
- A724 .38 special cartridge
- A727 Revolver, 38 Spec. or 357 mag.
- A729 .38 Spec. revolver; no indication of make or model
- A731 Revolver, Make ?, Model ?, 38 Special
- A736 This cartridge case could have been ejected from either a .38 Special or .357 Magnum caliber revolver.
- A738 Make several types of revolver could have fired this cartridge; Model - several models could have fired it; 38 Spl or 357 Mag.
- A739 Revolver; Make--No opinion; Model--No opinion; .38 Special A740 .38 special - revolver
- Possible Smith & Wesson or and revolver firing a .38 special cartridge
- A742 Almost any type of .38 special caliber or .357 magnum caliber Revolver or derringer
- A745 fired from a weapon chambered for .38 Special or .357 Magnum cartridges and, therefore, very pobably from a revolver. It is generally not possible to establish gun make or model from examinations of center fire cartridge cases fired in revolvers.

Table 18, continued

A746	Revolver; Smith and Wessel or Colt(D) Frame; all having solid frame design; .38 special or .357;
	other possibilities both American and foreign do exist
A747	Examination of this fired cartridge case did not reveal
	sufficient data for determination of the type weapon
	possibly involved, other than it being a revolver and
	of calibers .38 Special or .357 Magnum.
A748	Smith & Wesson numerous models 38 Caliber
A750	type - revolver or derringer; make - unknown;
	mod - unknown; cal38 Special or .357 magnum.
	The above information is valid when the cartridge case
	is considered alone, or independent of the .38 cal SPL
	bullet above. This casing is consistent with having
	been fired from a .38 SPL or .357 mag S&W revolver.
A751	We do not do this as a routine laboratory examination.
A754	This cartridge case was fired in a revolver the manufacture
	of which could not be determined.
A755	.38 spl. revolver
A757	revolver; .38 spl. or .357 mag.; all revolvers which
	chamber a .38 spl. cartriâge; various models
A760	Revolver - Smith and Wesson - Various Models - 38 Spl
	Revolver - Ruger - Police Service 6 - 38 Spl
	Revolver - Ruger - Security 6 - 38 Spl
	Revolver - Century Arms Co. Spanish - 38 Spl
	Revolver - Destroyer (Spanish) - 38 Spl
A761	It would have to be compared with any submitted standard
	.38 Cal. revolver or .357 although no pressure marks on
	side of cartridge case which might eliminate ;357 but
	would check it against any submitted if being used in
A762	conjunction with this investigation
A763	Revolver, Smith & Wesson, 38 Caliber revolver; possible makes include Smith & Wesson;
	38 Special
A765	.38 Caliber Revolver
A766	38 caliber revolver chambered for 38 spl or 357 Mag
	of the make like Smith and Wesson and Colt
A768	No determination at this time except revolver of
, ŵj	probable 38 Special caliber or 357 Magnum caliber
A769	.38 special caliber Llama revolver, Martial Model
<i></i>	.38 special and .357 magnum caliber Smith & Wesson revolver
	.38 special caliber and .357 magnum caliber Colt revolvers
	.38 special caliber Arminius revolvers - all models
4	. J8 Special caliber Rohm revolvers, all models
	Microscopic examination of the above-discharged cartridge
	case revealed characteristics similar to that of a
	reloaded cartridge. The lack of extractor or elector
	markings on this case precludes it being fired in a
	semi-automatic pistol or rifle which are canable of
	champering and firing this type of cartridge
	However, all other revolvers of the .38 special and
	.357 magnum caliber class should be included.

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Table 18, continued

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A772	This cartridge case is a .38 Special cartridge and was
Q - 1 - 1	most likely fired from a revolver as there are no
	extractor or ejector marks or would be present from a
	SaW 52 or a Colt .38 Gold Cup
A777	39 Choqial galibow gage nucheblu final da sitter a
A///	.38 Special caliber case probably fired in either a
	.38 Special caliber or a .357 Magnum caliber revolver.
A779	.38 special or .357 magnum revolvers
A783	.38 Special or .357 Mag. revolver, may be of type that
	uses a floating firing pin
A784	any 38 special revolver, model-indeterminable
A785	Revolver; .38 Special caliber
A786	
M/00	.38 Special revolver.
	We question the term "ejected" as a revolver does not
	eject a casing in the normal firing cycle.
A787	There were no apparent extracter or ejector marks on
	this cartridge case indicating it was manually ejected.
	Could have been fired in a number of .38 specials or
5. E	.357 magnums, revolvers or derringers.
3700	337 Magnums, revolvers or derringers.
A789	38 SPL or 357 MAG revolver
A790	.38 special caliber or .357 magnum revolver
A792	Could have been fired in any of a large number of
	revolvers having the recoil plate/breech face area
	horizontally broached. The revolver would most likely
	be a 38 special or 357 magnum.
A794	It is most probable that this cartridge case was fired
	in a movely of Grithk this cartinge case was fired
	in a revolver of Smith & Wesson manufacture (there are
	a number of possible models) caliber .38 Special or
	.357 Magnum.
A795	38 spl - S&W - revolver; INA - Tiger; Old Spanish 38 long -
	38 Sp1.
A797	This cartridge was probably fired in either a 38 sp Cal
	Revolver or a 357 Magnum Calibre Revolver. Unable to
	determine make of weapon.
A798	Could have been fined in a grith a training of the
	Could have been fired in a Smith & Wesson, Colt, or
A799	Ruger .38 Special or .357 magnum revolver.
A133	Revolver type weapon: .38 Special or .357 Magnum
	Revolver including Smith and Wesson, Colt and other
	manufacturers originally chambered for .38 Special
	ammunition. Excluded are Colt and S & W Autoloading
	pistols chambered for the .38 Special Wadcutter
	Cartridge.
A802	Solid-frame revolver - Smith & Wesson all models .38 spl.
	Or 357 Mag cal and barrel length att models .38 Spl.
	or .357 Mag. cal. and barrel lengths Solid-frame INA
	(Brazil) .38 spl. cal38 spl. cal. Spanish Revolvers
2005	with Smith & Wesson type rifling.
A805	no data given for this question
A813	Revolver; possibly .38 Special Smith Wesson: models
	TO-2 OL W & P 1902
A814	.38 Cal; Revolver
7015	

A815 not submitted; we must presume no error in the answer, like, "nearly anything"

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Table 18, continued

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A818	A .38 Special or .357 Magnum Revolver with circular breech face markings
A820	no data available
A823	any weapon which will chamber and fire the .38 spl.
	cartridge - many diff. types and makes
A827	.38 Spl. or .357 magnum S&W, Colt, or Ruger revolver
A830	This cartridge case could have been fired in any .38 Special or .357 Magnum revolver
A831	.38 Special revolver
A833	Cal38 Special or .357 Magnum Smith & Wesson Revolvers,
	Models 10,12,24,15,19,27,28,36,38,40,37,60,64,66,67; Ruger speed six & security six
A835	Revolver make any model cannot be determined;
a di sa di	caliber: .38 borcial - 357 Magnum38 long
A837	38 special or 311 asynum revolver with a fixed firing
	pin. Weapons falling into this category are: Smith & Wesson, Colt, Rossi, Taurus, EIG, and others
A838	Most probably fired in a revolver or derringer chambered
N020	for .38 Special of .357 Magnum cartridges. No marks
	were found to indicate specific makes or models.
A839	Revolver, .38 special or .357 magnum caliber
A842	Revolver; possible S&W or copy, exclude Liberty Rebone
	38 S&W Special
3047	
A847	ejected from a .38 Special or a .357 Magnum revolver
A848	revolver; .38 Special/.357 Magnum
A852	The most probable weapon is a .38 spl or .357 cal revolver
A853	Revolver, caliber .38, make & model unknown
A854	1. Ruger, 2. Smith and Wesson, 3. Colt, 4. Rossi,
	5 DTC C TNN 7 Minchell O Waring Cannich Lung
	5. EIG, 6. INA, 7. Miroku, 8. Various Spanish types. These would be .38 special or .357 magnum caliber revolvers
A855	Revolver - Smith & Wesson, Colt, INA, Ruger - 38 Special, 357 Magnum
A856	no opinion other than probably fired in a revolver
A860	Remington-Peters make .38 special. The identified
	cartridge case is of the type most generally intended
1.11	for use in a revolver and bears indication of having
and the second second	been fired inca revolver. There is nothing of o
	significance whereby a particular make of weapon can
	be established. However, there exists examinable striae
	that is favorable for comparison purposes should a
	suspect weapon be submitted.
A861	.38 cal. special revolver
A866	.38 Special Revolver or .357 Magnum Revolver
A868	The cartridge case did not exhibit any marks which
	indicated a possible weapon which may have fired the
	anatoteu a possible weapon which may have ilred the
	Cartridge case.

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	Table	18,	Continued
	A869		Cartridge case probably came from a .357 magnum or
	n na santa Tanàna ao amin'ny faritr'ora		.38 special revolver
	A873		38 Special cartridge - any 38 or 357
	A874	,	38 special or 357 magnum revolver
	A880		Due to a limited reference collection and specifications
	1. 1. ¹ . 1.		available to this lab it could be stated only that the
			markings observable on the cartridge case are consistent
			with those on caliber .357/.38 SPL Smith & Wesson
	÷.		revolvers. Other weapons unavailable for comparison may
			display similar characteristics.
	A883		This cartridge case was fired in a revolver chambered
		· .	for the .38 Special or .357 Magnum cartridge.
	A884		Revolver, .38 Spl or .357 May.
	A888		Revolver; Make: Unknown; .38 Spl. Cal. or .357 Mag. Cal.
	A891		Colt or Smith & Wesson (or conties of same), any model
			with firing pin attached to hammer. The cartridge case
			identified with a three digit number is headstamped
			"R-P 38 SPL". This cartridge was designed for use in
			revolvers. Although there are a few semi-auto pistols
			that are chambered for this round using wadcutters, I
ų,			can find no evidence of extractor marks or ejector
			marks. This cartridge could have been fired in any
			revolver chambered for .38 Special or .357 Magnum
			ammunition. The firing indentation seems to have been
ċ	•		made from a firing pin striking downward. This would
	1111		exclude revolvers having a floating type firing pin.
	A892		38 Special cartridge case was fired in a rowelwar

- ed in a revolver chambered for .38 Special or .357 Magnum cartridges. The questioned revolver has a hemispherical shaped firing pin but a make and model cannot be determined. A894 Revolver .38 special or .357 magnum; no other analysis A895 .38 spl or .357 mag revolver
 - most probably fired in a .38 Special caliber or .357 Magnum caliber revolver. The firing pin impression is consistent in appearance with those associated with revolvers of Smith & Wesson manufacture.

Table 18, Continued

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A899

A920

Revolver, Smith & Wesson of following models: 357 magnum: 27 magnum (357 magnum), 28 magnum (Highway Patrol); .38 Spl.; M & P 12 (airweight), 37 (Chief's Spl.); A. Uberti & Co. derringer; Colt revolver 357 magnum of following models: New Frontier, New Service, New Police Pythan, Shooting, Single Action Army, Three-Fifty Seven, Trooper MR111; Dan Wesson 12; Great Western Frontier, Herters Super; Merril Sportsman: Smith & Wesson Combat 19-2; Sturm, Ruger Co.; Blackhawk-41, Security-six; Thompson-Center Arms Contender; Arminius HW 38; Astra-Unceta y Cia Cadix; Charter Arms Co. Undercover; Colt's Pt. F.A. Mfg. Co.: Aircrewman, Agent, Army Special, Cobra, Commando, Detective Special, Diamond Back, Goldcup (N.M.), Lawman MK111, Marine Corps, Marshall, New Army, New Navy, Officers Model Target, Official Police MK111, Police Positive Special, Shooting Master; Dardick 1100, Foyas Taruius S.A., Great Western: Deputy, derringer; Hawes: Western Marshall, Chief; Hy Hunter derringer; INA; J.P. Gawer Medallion, Llama-Gabilonda y Cia XXVI; Miroku Firearms Mfg.: VI, Liberty Chief, Police Model; Rohm Gesellschaft j,g,H. RG-38, RG-17 derringer and others not listed due to incomplete data published

29

- A902 Revolver, .38 special or .357 magnum
- A903 fired in a weapon (most probably a revolver) that will accept and fire a .38 special cartridge
- A904 S&W Revolvers Models 10,12,13,14,15,19,27,28,36,37,38, 60,64,65,66,67; S&W auto loader model 52; Ruger Blackhawk; Security-Six; Speed-Six; .38 Spl & .357 mag Llama "Martial" .38 spl revolver; .38 Super Automatic; Interarms Virginian Single Action revolver .38 Spl & .357 Mag.; Hawes Single Action revolvers; .357 Mag.; Western-Marshall; Montana Marshall; Texas Marshall; Federal Marshall; Silver City Marshall; Chief Marshall; all other revolvers and/or autoloading pistols chambering .38 spl and .357 magnum cartridges; Colt, Rohm; Rossi; Titan, INA; Iver Johnson; Astra; Ruby; EIG; G.H. revolver (Spain); Spesco; Taurus; Charter Arms; TAC (Spain); Star Auto loader .38 super A908 could have been discharged in a .38 Spl. or .357 Magnum
- revolver, make and model unknown A915 Cartridge case could have been fired in any .38 special

or .357 magnum caliber revolver. The lack of extractor and ejector marks indicate that a semiautomatic pistol or a rifle of this caliber was not used

A list of weapons which could have fired is extensive. Any weapon chambering a .38 Special or .357 Magnum caliber cartridge should be submitted for comparison

A897
Table 18, Continued

- A923 was most probably fired in a revolver. The suspect weapon was of caliber .38 special or .357 magnum. And was most probably of Smith & Wesson manufacture although no comparative standards are available to the examiner to prove this part of the conclusion. However sufficient quantities of fired cartridge case bearing similar markings have been examined to conclude the above.
 A925 The weapon form which this case was ejected would most likely be a .38 special or .357 magnum revolver which has a firing pin on the hammer rather than as a part of the frame.
- A927 most likely fired from a weapon capable of firing a .38 special cartridge which would include any number of .38 caliber, .38 special, and .357 magnum caliber type weapons.
- A935 Caliber 38 Special, Caliber 357 Magnum revolvers, or caliber 38 Special Derringer
- A938 .38 Special Remington-Peters Make. A lack of Extractor and ejector marks indicate the weapon used was a Revolver of .38 special-357 caliber. This department could not identify the make of weapon from which it was fired. However, the half moon impression found on the primer has been found on many test shots from Smith & Wesson's although other revolvers of this design should not be eliminated.
- A942 most probably ejected from a Colt revolver of .38 Special or .357 Magnum caliber. Unable to determine model number as the characteristica are similar in most models of Colt revolvers. Colt revolvers usually have tighter chambers than most other brands, and the lack of sidewall bulge on this cartridge case indicates a tight chamber. The possibility that this case was fired in another brand of revolver should not be overlooked.
- A944 could have been discharged in a .38 Special or .357
 Magnum ravolver, make and model unknown
 A958 since this is a fired .38 Special make cartridge case, which does not exhibit any markings except for the firing pin impression in the primer, we have no
- opinion as to the make and/or model of weapon in which it might have been fired except a weapon capable of chambering and firing the .38 Special cartridge. A961 could have been discharged in a caliber .357 Mag or
- caliber .38 Special revolver, make and model unknown A962 no information given
- A969 consistent with .38 Special Smith & Wesson A970 Revolver: Make - 2: Model - 2: .38 Spl
- A970 Revolver; Make ?; Model ?; .38 Spl A974 any weapon capable of firing a caliber
 - any weapon capable of firing a caliber .38 SPL or .357 MAG cartridge. If mark above firing pin impression is an ejector mark, could be from .38 SPL. Smith & Wesson auto which chambers .38 SPL. mid-range ammunition

Table 18, Continued

A975 Revolver; .38 special/.357 magnum

- A978 38 special cartridge case manufactured by Remington and fired in a 38 caliber or 357 magnum revolver A979 .38 caliber revolver
- A980 This cartridge case could have removed from any number of .38 Special/.357 Magnum caliber revolvers. Make and model unknown.
- A984 Principal suspect weapons (in order of probability) (1) Smith & Wesson .38 Special and .357 Magnum revolvers, and (2) possibly gome Spanish-made copies of the Smith & Wesson in caliber .38 Special
- A985 .38 caliber Smith & Wesson or H&R
- A989 Fired in a .38 or .357 caliber revolver. Cartridge is a center fire .38 special Remington - Peters.
- A994 (Handweapon) Revolver and or pistol, (Make) S&W, Colt, Forehand & Wadsworth, Andrew Fyrderg & Co., Fabrica DeAmas Garatazades Eibar, Spain, Garantazado Eibar, Spain, Harrington & Richardson, Hopkins & Allen, Iver Johnson Arms & Cycle Works, Meriden Fire Arms Co., Orbea Hermanos Eibar Spain, Sociedad Alfa Eibar, Spain, Garante, Anitua y Cia. Eibar, Spain, E. Remington and Sons, Rohm, etc. (Caliber) .38 Caliber (typical revolver or pistol cartridge casing. (R-P Spl.) (Any revolver and or pistol capable of housing a .38 Cal. SPL cartridge casing.) A995 Ejected from a revolver with a fixed firing pin, i.e. Colt or Smith and Wesson 38 Sp1 or 357 Magnum revolvers. There is not enough detail on the breech face to eliminate certain manufacturers. A998 Revolver; .38 Special

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		Table 19.	, Continued
	Table 19		
		A740	.380 Auto
	RESPONSES TO QUESTION 3		Possible 1. Savage Arms Model 1913, 2. High standard
			Model C-380
		A742	.380 automatic caliber Beretta, Sterling, Llama, High Standard, Star, Walther, C.Z., etc.
LAB	LABORATORY RESPONSES TO PROBABLE WEAPONS (S) FOR	A745	The most common types of .380 Auto pistols from which
CODE	PROJECTILE IDENTIFIED WITH NO SPECIAL MARKS		this bullet could have been fired include Walther PP and PPK Models, Beretta (all models) and Astra (all
A703	Savage Model 1915 or 1917 .380 Automatic Pistol		models). This is not necessarily an all-inclusive list.
M703	Walther PP or PPK .380 Automatic Pistol		All non-Colt .380 Auto weapons seized should be sub-
	Astra 600 Military & Police 9 mm Parabellum Auto Pistol		mitted to the Laboratory for test firing. (Tests from
A707	.380 (9mm) Caliber (Italian) Beretta, Semi-Automatic		weapons having the rifling class characteristics listed
R/U/	Pistol		in Section II, 4 seized by other jurisdictions should be
A708			requested.)
A710	.380 Auto or 9mm - possibly Beretta or Astra Auto-loader with rifling of the Walther type	A746	Type - Semi-Automatic Pistol; Make P.B. Beretta;
	weapons known to have these characteristics are:	A/40	Model - All Caliber .380 or 9 m/m short; other
A712			
	auto loading pistols manufactured by Beretta, Astra,	A747	possibilities both American and foreign could exist
	Walther, Savage	A/4/	typical of pistols by Beretta, Astra, Webley and
A713	The unmarked projectile is most likely from a .380		Bernadelli (Spesco), in calibers .380 Auto, 9mmC or
	auto caliber semi-auto pistol by P. Beretta or one	1	9mmK. Since these are not necessarily the only brands
	by Savage, High standard (e.g., G-380) or Astra.		possible involved, any weapon of the given specifications
A715	pistol, Baretta, 1934, .380 auto	A748	should be considered for submission to the Laboratory.
	pistol, Ceska Zbrojovka, model 1924, .380 auto	A/48	(1) Beretta 38 caliber
	pistol, Astra, model 4000 Falcon, .380 auto		(2) Walther Model PP, PPK 38 caliber
A717	Automatic 9mm	3750	(3) Savage automatic 1915, 1917, 38 caliber
	Possibly either Beretta Model 1934, or Astra Model 400,	A750	.380 Automatic, possibly a Beretta
	or Walther Model PP		The Walther, Mod PP and PPK/S, has L&G markings that are
A718	most probable weapon is a .380 automatic.		quite similar except for the bullet grooves which appear
	The weapon could be a Walther, or the HK4* (most		to be a "hair" wider. If the .380 casing and the .380
	probable) or the Astra model 400 or 600, the Beretta,		bullet are considered together then the Beretta is the
	Bernardelli, Star or Colt. There is a chance that a		only reasonable possible weapon.
1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	9mm. weapon was used, as the projectile appears to	A751	partial list of the .380 Automatic pistols that could
	have been fired in an over-sized barrel - this may		have fired the projectile: Astra, Beretta, High Standard,
	include a .38 caliber weapon in an extreme case.	and the second	Savage, Star, Walther
	*PPK or PP, the Turkey manufactured copy of the Walther	A754	Fired in a weapon of .380 (9mm Kurtzshort) caliber.
A724	High Standard Mod. G-380 .380 auto		Semi-automatic pistol. Probably of European origin.
	Savage Arms Mod. 1913 .380 auto	A755	.380 automatic
A727	380 Auto Loading type weapon with 6 L & G Right twist	A757	Semi-automatic pistol; .380 auto; Beretta Automatic Pistol;
A729	.380 semi automatic pistol		Models 1915, 1934; Ceska Zbrojovka Automatic Pistol Models
-	possible weapon normally not reported (manufacture)		1924, 1928; High Standard Automatic Pistol, all models;
A731	Autoloading pistol, Beretta Model 1934 Corto - Astra		Savage Automatic Pistol, all models; Walther Automatic
1.1	Model 300, 380 Auto		Pistol, models P.P., P.P.K.
A736	probably was fired from a .380 Auto caliber Italian	A760	Semi Automatic Beretta 380 ACP
	Beretta PK Semi Automatic pistol. However, the	A761	Walther Model P38, 9MM; Astra M-400, 9MM; Llama M-V111, 9MM;
	projectile may have been fired from a .380 Auto		Kirikkale, Copy of Walther, 9MM; any weapon fitted with
	Caliber German Walthers Semi Auto pistol or a .380		adapter such as .35 Cal. Rem rifle or .35 Cal. Winchester
	Auto caliber Czechoslovakian CZ Semi Automatic pistol.		Model 95
A738	Astra 380 ACP	A762	Pistol, Auto, 380 caliber
	Beretta 380 ACP	A763	automatic; possible makes include Browning, Beretta, and
	Bernardelli 380 ACP	a statute set and	Astra; probably 380 auto caliber
	This cartridge could have been fired by several weapons,		이 성장에 대한 것 같은 것이 있는 것 같은 것 같은 것이 같이 있는 것이 같이 많이
	any of the above three.		
A739	Pistol; Beretta*; Modelno opinion; .380 Auto		그는 것은 사람이 가지 않는 것 같은 것이 같은 것이 같이 많이 있는 것이 없다.
	*Oral report only as a possibility		

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Table 19, Continued

A765	Savage Model 1913, .38 Caliber automatic	
	Savage Model 1907-1917, .38 Caliber automatic	
•	Savage Model 1915, .38 Caliber automatic	
A766	Beretta 380 auto pistol	
A768	Semiautomatic pistol, Savage Arms Co., Model 1913,	
	Caliber .380	
A769	a) .380-caliber Harrington & Richardson semi-automatic	
	pistol - Model HK4	
	b) .380-caliber Walther semi-automatic pistol - Model PPK	
	c) .380-caliber CZ semi-automatic pistol - Model 1924	
	d) .380-caliber Beretta semi-automatic pistol, Model 1934	
	Note: All 9m/m Corto and .380-caliber semi-automatic	•
	pistols having similar class characteristics to that of	
	the above bullet should also be included in this list.	
A772	Just about any .380 auto pistol with the ejector and	
	extractor 180° apart although this cartridge bears	
	marking similar to those made by some of our Llama 380's.	
A777	.38 caliber bullet that could have been fired from a .380	
	caliber semi-automatic pistol possibly manufactured by	
	Astra, Beretta, Llama, Star, or Walther.	
A779	9mm or .380 automatic weapons; most probably - Astra;	
	also possible are other weapons with 6 lands and grooves	
	with right hand twist.	
A783	Beretta .080 pistol - mod 1934	
A784	type - automatic pistol; make - Beretta; model -indeter-	
	minable; caliber -380 automatic	
A785	Semi-Automatic Pistol; Beretta; .380 Caliber	
A786	do not have a complete firearm collection for comparison	
A787	Astra model 400, Walther model PP, Ortgies model 1934,	
· · · · · · · · · · · · · · · · · · ·	Beretta, Star model D, Baynard M.P. M1908	
A789	380 Automatic	
A790	.380 caliber Beretta semi-automatic pistol	
A792	The land impressions on this bullet are not clearly	
	defined, that is, the edge opposite the driving edge.	
	Based on microscopic comparisons with our test bullets,	i.
	it is closest to the 380 Bernardelli, however, it is	
	also close to the Walther and Czech Zbrojovka.	
A794	It is most probable that this projectile was fired in	
	a semi automatic pistol Beretta type (a number of	
	models are possible, caliber 9 mm short (.380 auto).	
	There also exists the possibility that this projectile	
	could have been fired in a Walther semi automatic pistol	
	of the same caliber - Models PP, PPK and PPK/S or copies,	
	including the Turkish copy of these models. There is	
	also some possibility that the following weapons might	
	be considered: CZ Model 1924, Astra Model 400, Ortgies	
	or Yovanovitch Model 1913. These weapons are listed	
	as possibilities based primarily upon class characteristics	
	reflected in the literature and represent weapons which	
	this laboratory does not have test samples from, and also	
	weapons manufactured in relatively small numbers.	

Table 19, Continueā

14040	±,,	continued
A795		Beretta, 1942, 380 - 8 other models; Walther, PPK ~ PPK/S; Astra - 9 mm 400
A797		Star 9mm/.380 Autauto; Beretta 9mm/.380 Mod's - 1934, 1951,
		MP 38-42 types 1915 and 1923; Czech 9mm/.380 Mod 1924;
		Astra 9mm/.380 Mod 1921; Walther P.P. 9mm; Hi Standard
		Mod G-380, 9mm; Savage Mod 1913; Bernardelli 9mm; Kirikkale 9mm; R.E. 9mm Largo
A798		probably fired from a Beretta Model 1934 or Walther
		PPK/S .380 semi-automatic pistol
A799		Autoloading Pistol, .380 (9 mm) Cal. with 6R Class
		Characteristics. Possible Astra, Beretta, Walther,
		CZ 1924.
A802		Astra - Beretta, P. Model 1934 - Couger - Bergman,
		T. Mod.5 - Bernardelli, Italy - Bufalo, Spain - C.Z. Mod.1938 CzechF.N. Browning 1910 Frommer-Stop-Galesi,
		Model 6 Italy - High Standard Mod. G - Llama, Spain MAB -
		Model C - Mod.D, France - Ortgies -DWA, German - Savage -
		Star, Spain .380 auto cal. 9mm corto - 9mm Kurz
		Best probable - New Beretta Models; possible FN 👳
A805		.380 Semi-auto. pistol
A813		Semi-Automatic .380 Auto, 9mm (short)
		Walther PP & PK; Astra 300; CZ models 1938, 1924; Bayard
		Pocket Model; Beretta models 1934, 1923; High Standard model G-380; Liama III A.
A814	•	38 Cal
A815		most likely fired in a 380 (9mm Corto) Beretta auto
		loading pistol (model 1934 in work notes)
A818		Any of the following .380 Auto caliber semi-automatic
		pistols: Astra, Beretta, Star, High Standard, Walther PP
		(K/S), and others
A820 A823	[no data available on probable weapon prob .380 auto cal weapon, weight, shape consistent
HOZ3		w/.380 auto; possible weapons - Beretta, Walther, Star,
		Llama, Czech, Astra and any weapons w/similar rifling
		characteristics
A827		Pistol; Beretta, Model 1934, .380 auto.
		Possibly Walther PPK or PPK/S .380 auto
A830		.380 Auto Astra Model 3000, Constable Model;
		380 Auto Bayard Model 1911; .380 or 9mm C Beretta Models 1934 or 70S; .380 auto Bergman, T. Model 5;
and an an an an		9mm C Bernardelli Model 60; .380 Auto Browing Model 1910;
		.380 Auto CZ Model 1938 (Czech); .380 Auto Frommer
		Models Baby & Stop (Hungarian); .380 Auto Echasa Model
		Fast (901) Spanish 380 Auto Galesi Model #6 (Italian);
		380 Auto High Standard Model G: .380 Auto Llama Model 111A:
		-380 Auto MAB Model C & D: .380 Auto Mauser HSC Model:
		.380 Auto Of gies DWA German; .380 Auto Star Model 1919, 1920, Milityr, Super SM; .380 Auto Walter Models PPK,
		PP, PPKS
		그는 그릇~ 그 그는 것 같아? 승규가 물었다. 그는 것 같아요. 것은 것을 했을

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Table 19, Continued

Walther .380 self-loading pistol A831 Semi-automatic - .380 ACP (9mm short) A833 Walther PPK, PPKS, PP, - Astra, CZ, Beretta Type: semi-automatic pistol A835 Make: (1) P. Beretta Mod. 1924, (2) Walther, (3) C.Z. (Czech) Caliber: 9mm Corto (.380 auto - 9mm Browning Short - 9mm Kurz) 380 caliber weapon A837 Beretta model 1934, MAB model C/D, Savage model 1913, Star model D. This however does not exclude the possibility of other weapons with similar class characteristics most probable fired by a Beretta semi-automatic pistol A838 chambered for the .380 Automatic Pistol (9 mm Kurz) cartridge. No specific model is suggested. semiautomatic pistol A839 1380 A.P. caliber Firing pin class characteristics generally correspond with the model 1934 Beretta semiautomatic pistol Automatic; Beretta; 1934; 380 automatic A842 most probably fired in a .380 caliber (9mm. Browning A847 short caliber) semi-automatic pistol semi-automatic pistol; Baretta; 1934; 380 Auto (9mm Short) A848 the most probable weapons are Savage, Walther, Beretta, A852 .380 automatic pistols automatic, caliber .380 (9mm Kurtz or Corto), make & A853 model unknown 1. Walther PPK type, 2. Beretta, 3. Bernardelli, A854 4. Astra, 5. Ortgies, 6. Star, 7. Czech All semi-automatic .380 automatic pistols Semi-automatic pistol - Beretta - .380 A855 class characteristics consistent with known 0.380 projectile A856 fired in a Walther PP/K. Literature search shows also consistent with Walther PP, P-38, and some Savage and Beretta autoloading pistols of this caliber .380 full jacketed bullet of the type designed for use A860 in a semi-auto pistol. There is nothing whereby a conclusion can be narrowed to a specific weapon. However, class characteristics are indicative of the following as probabilities: Beretta .380 (mod 1934), CZ .380 (Czech), and Astra. The class, though remote -since manufacture is discontinued, also is comparable to the Hi-Standard .380 (mod. G-380). semi-automatic pistol possibly Astra, Beretta, Savage, A861 Walther caliber .380 .380 ACP auto Beretta Model 934; Walther PP & PPK; A866 Llama IIA, Model 40 Astra; Czech Model 1924, 1938; Rep. Espanda

Table 19, Continued

A868	A list of probable weapons which may have fired the
	spent projectile would include the following semi-
	automatic weapons: Astra, Beretta, Couger, Bergman,
. 0	Bernardelli, Bufalo, Basque, C. Z., F. N. Browning
	Frommer, Galesi, High Standard, Llama, MAB, Manurhin,
	Ortgies, Savage, Star, Tauler, Walther, Fast Eibar,
	or any other weapon exhibiting similar rifling
- 	characteristics
A869	The most probable weapons are 9mm short or .380 auto,
	principally Beretta Model 1934, Walther Model PPK,
	Czeska CZ Model 1924, and Bernardelli.
A873	380
	Best possible Savage model 1913
	6 lands & grooves right twist
A874	380 Semi-Automatic
	P. Beretta; Astra Model 600; High Standard Model G 380;
	Several of Ceska Zbrojovka 380
A880	Astra 300 .380; Walther PP or PPK .380; Beretta Autos .380
A883	probably fired from a .380 caliber semi-automatic pistol
2004	rifled to Beretta Model 1934 specifications
A884	Semi-auto pistol, .380 or 9mm Short, Astra, Beretta,
	Bernardelli
A888	Pistol; Pietro Beretta, Walther, Czech CZ; 380 Auto Cal.
A891	Semi-automatic pistol(A) Astra, (b) Beretta,
li li	(C) Bernadelli, (D) CZ. (E) Kirikkale, (F) Walther.
· · · · · · · // · · · ·	Item (A) models 300, 400, 600. Item (B) model 1934.
	Item (C) model 60. Item (D) models 1924 & 1938.
	Item (E) model PPK. Item (F) models PP, PPK, PPK/S. Caliber .380 AutoItem (A) is normally chambered for
	9mm Largo cartridge but will readily chamber and fire
	the .380 Auto cartridge.
A892	.380 auto projectile has characteristics consistent with
	projectiles fired in a Model 1934 Beretta .380 autoloading
	pistol
A894	pistol (semi-auto) High Standard Model G380 .380 auto caliber
	pistol (semi-auto) Astra Model 400 .380 auto caliber
ก่ มี	pistol (semi-auto) Astra Model 600 .380 auto caliber
السيس	pistol (semi-auto) Walther Model PP ,380 auto caliber
A895	possibly an Astra, Beretta, Nickl
A897	could have been fired from several makes cf .380 caliber,
	semi-automatic pistols, the most probable of which is
	the Italian made Beretta, Model 1934
A899	type - semiautomatic pistol of following makes: caliber 380:
	Astro-Unceta y Cia: M-300, M-4000; Pietro Beretta: 1915, 1951;
	Astra-Unceta y Cia Constable; Bayard: 1908, 1923, 1930; Beretta
	705; Browning: 1910, M-1922; Colt's Pt. F.A. Mfg. Co. 1903
	Pocket; Frommer: Baby, Stop; High Standard G-380; Llama-
	Gabilondo 111A; Mauser H Sc; Remington PA-M51; Walther:
	P.P., P.P.K.S.; Welby & Scott. In addition, there are
	literally hundred of cheaply made European arms chambered
	for this cartridge case. These are set ander a multitude
•	of trade names and are made by a large number of small factories.

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Table 19, Continued

A961

laboratory will not identify "most probable weapon(s)" A902 customarily will provide a list of possible weapons with the notation that such list is not all inclusive. Possible firearms could include: Beretta, semi-automatic pistol(s) .380, 9mm Walther, semi-automatic pistol(s) .380, 9mm short Astra, semi-automatic pistol(s), .380, .38 ACP, 9mm Savage, semi-automatic pistol(s) .380 Webley, semi-automatic pistol(s) 9mm Browning long We have no data on any weapons chambered for .38 super A903 Most probable weapons are: (a) Savage automatic pistol, Model 1915-1917 (b) Walther automatic pistol, Model PP & PPK A904 Savage .380 autoloader Walther .380 autoloader .320 (9mm) class and could have possibly been discharged A908 from any of the following type auto-loading firearms: Savage, Model 1915, .380 Auto. Webley & Scott, Hammer Model, .380 Auto, Astra, Model 3.000, .380 Auto. Beretta, Model 934, .380 Auto. Walther, Models PP & PPK, .380 Auto. The foreign makes made over the above patents A915 The most probable firearm which ejected this case would be an Italian P. Beretta, however, no suspect .380 A.C.P. or 9mm caliber semi-automatic pistol should be overlooked. A920 .380 or 9mm caliber bullet; list of weapons which could have fired this bullet is extensive. Any .380 auto .9mm or 38 caliber weapons related to this investigation should be submitted for comparison caliber .380 auto and was most probably fired from a A923 pistol (semi-automatic) with rifling characteristics consistent with those manufactured by Beretta and some Spanish and German manufacturers A925 has rifling common to many European ,380 autoloading pistols. Weapons having these land and groove dimensions are Beretta, CZ, Bernardelli, Astra 300, Llama, Kirikkale Bayard Pocket Model (PIEPER) and Walther. A927 Possible weapons: .380 caliber automatics Most probable weapons: Savage Arms .380 automatic, model 1907-1919, or Savage Arms .380 automatic, model 1915. However, the possibility of the bullet being fired through 13 a rifle should not be ruled out; example of possible rifle Would be the Marlin Model 35 Rem. Caliber 380 or Caliber 9mm short auto-loading pistols. A935 Astra, Beretta, German machine pistol, Browning Boixia, Bernardelli, Glisenti, High Standard, Handy, Luger, Star, Walther, Llama, Mauser, Czech, Radom, Savage, Ortgies and others

Italian Beretta 1934/Semi-Auto. - Caliber .380 A938 The class characteristics are compatible to the Beretta. However, we would not exclude other possibles with the same class characteristics such as: Bernardelli, Czech CZ1924 and 1938 A942 most probably fired from a Beretta, semi-automatic pistol, model 1934 or recently manufactured model 934, .380 caliber (may also be marked 9mm Corto or 9mmC.) The test bullet shows some slippage which makes precise measurement difficult. The rifling land width and rate of twist is so similar to those of the Walther models PP, PPK, and PPKS the possibility that this projectile was fired from a Walther should not be overlooked. A944 .380 (9mm) class and could possibly have been discharged from any of the following auto loading firearms: Savage, Model 1915, .380 A Webley & Scott, Hammer Mod., .380 A Astra, Model 3.000, .380 A Walther, Models PP & PPK, .380 A Beretta, Model 934, .380 A Other foreign makes over the above patents. A958 It is our opinion that this bullet was fired from a weapon capable of chambering and firing the .380 automatic pistol

capable of chambering and firing the .380 automatic pistol cartridge. This weapon will exhibit six land and groove impressions inclined to the right. For the reason stated above (in answer to question #1 we have no opinion as to the possible make and/or model of weapon from which it was fired.
.380 (9mm) class and could have been discharged from any of the following makes of auto-loading firearms: Vincenzo Bernardelli, Models 60
Pietro Beretta, Models 1915, 1934, 1951 & M.P.-38-42
Astra-Unceta y Cia, Models 300, 400, 600 & 3000
Webley & Scott Ltd., Hammer Model
Hijos de Calixto, JO-LO-AR

Savage Arms Co., Models 1915 & 1917

High Standard, Model G-380 Ceska Zbrojovka, Models 1924 & 1938

Anc. Etablissement, Bayard Pocket Model

Republic espanola, "R.E." 9mm Largo

Walther, Models PP & PPK

- Other foreign makes over the above patents
- A962 Astra Models 300, 600; Beretta 1923 type, Models 1934, 1951, Mach. Pist. M38-42; Bernardelli; Campo Giro Model 1913; HI Standard Model G-380; Llama-M40, Model IIIA; Walther-Mod. PP. 380 Beretta, or .380 Walther
- A970 Semi auto pistol; Walter, Astra, Beretta, Savage, Model - 7, 380 ACP

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		1. M.		35
	Table	19,	Continued	
	A974		.380 auto bullet	
			general rifling characteristics same as those on bullets	
			fired from caliber .380 Beretta (9 mm Corto) automatic	
		·	pistols. Good, clean, sharp lands and grooves along with	
	· · · · ·		measurements of same favor Beretta	
	A975		semi-automatic pistol, Italian Beretta, Model 1934, .380 auto	
			semi-automatic pistol, German Walther, Model PP, .380 auto	. 1
			semi-automatic pistol, Czechoslovakian CZ, Model 24, .380 aut	0
	A978		fired from a 380 caliber or 9 mm semi-automatic weapon	
			rifled with six lands and 6 grooves right hand twist. Among	
متسبقة من			some or the weapons so rifled are those manufactured by	
	A979		the following; Astra; Walther; Beretta .380 or 9mm semi-automatic pistol	
	A980		fired from a .380 9 m/m Corto caliber pistol.	
	112.00		Make and model unknown	
	A984		Principal suspect weapons (in order of probability) are	
			.380 Auto semi-auto pistols manufactured by P. Beretta	
			(Models 1934, 1915, 35-42); Ceska Zbrojovka (Models 1924	
			and 1938); and Walther model PP (war production)	
	A985		9 mm Berretta most likely	
	A989		Class characteristic of Beretta, Astra, Walther PPK	
	A994	·	(Handweapon) Pistol (semi-automatic or automatic)	
			(Make & Model) Astra, Beretta, Browning, Campo Giro.	
	a di kara kara		CZ, HI Standard, Llama, Luger, M.A.B., Mauser, Ortgies.	
			Radom, Savage, Star, S&W, Walther PP and PPK, Suomi,	
			Tauler, etc.	
			(.380 Caliber FMJ or 9MM Short) (any semi-automatic and or	
			full automatic pistol with the same family characteristics	
	A995		of that .380 Caliber (9MM Short) pellet which was submitted)	
	M232		The most probable weapon is either a 380 Auto Walther pistol or 380 Auto Beretta	
	A998			
	A220		Browning Pistol .380 Caliber - 9mm Corto Beretta Pistol .380 Caliber - 9mm Corto	
			Derecta Listor '200 Caribel - AWW COLLO	

& many other possibles

Sector Control

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Table 20

RESPONSES TO OUESTION 4

			automatic) gun chambered for .380 Auto (9mm) ammunition.
LAB	LABORATORY RESPONSES TO PROBABLE WEAPON(S) FOR		The firing pin impression is unusual in that it was produced
CODE	CARTRIDGE CASE IDENTIFIED WITH AN "X"		by a relatively flat firing pin having a small nipple in
			the center. (Comment: This laboratory does not generally
A703	any .380 automatic pistol		attempt gun type identification from fired cartridge cases
A707	.380 (9mm) Caliber (Italian) Beretta, Semi-Automatic Pistol		alone, except for .22 RF ammunition, due to the limited
A708	.380 Automatic (possible Beretta); possibly Astra .380 also		classified characteristic information and reference
	Weapon characteristics difficult to identify on one single		collection.)
	Casing	A746	Type - Sem2-Automatic; Make - P.B.Beretta, Walther and
A710	Auto-loader chambered for the .380 ACP cartridge	A140	Czech; Model - All models, caliber .380 or 9m/m/ short
A712			Other possibilities both American and Foreign could exist
A/12	The cartridge case is a Winchester/Western caliber 380	A747	
	Auto and could have been fired in a Beretta Autoloading	A/4/	This cartridge case was compared visually and micro-
	pistol		scopically with fired laboratory standards. The firing
A713	We do not maintain an adequate collection of pistols and	e parte a contra de la contra de	pin, extractor and ejector markings on this cartridge
	we are not aware of a publication which concisely		case are most compatible with it having been fired in a
	catalogues cartridge case data. We therefore do not	a de la construcción de la constru	Beretta pistol.
(D)	identify likely weapons other than by type and caliber	A748	(1) Beretta 38 caliber
	when we have only a case.		(2) Walther Model PP, PPK, 38 caliber
A715	Pistol Beretta, model 1934, .380 auto		(3) Savage automatic 1915, 1917, 38 caliber
A717	Automatic 9mm; possibly either Beretta Model 1934, or	A750	Beretta; Automatic; model unknown; 380
	Astra Model 400, or Walther Model PP	A751	We do not do this as a routine laboratory examination
A718	The cartridge case appears to have been fired from an	A754	any number of semi-automatic pistols of .380 (9mm
	automatic type weapon. The firing pin impression appears		Kurtzshort) caliber have similar rifling
	to be good (possibly a re-manufactured one - the "bull's	A755	.380 Automatic
	eye" impression may be from sloppy lathe machining).	A757	Semi-automatic pistol; .380 auto; Browning Automatic
	No weapon type could be determined. (There is also a		Pistol Models 1910, 1922 (Fabrique Nationale, Belgium),
and the second	good breech face impression).		Walther Automatic Pistol Models P.P., P.P.K.
A724	High Standard Mod. G-380 .380 auto	A760	Semi Automatic Beretta 380 ACP
	Savage Arms Mod. 1913 .380 auto	A761	Walther Model 38, 9MM; Astra M-400, 9MM; Llama M-V111, 9MM;
A727	380 Auto Loading weapon		Kirikkale, Copy of Walther, 9MM.
A729	.380 semi automatic pistol		Any weapon fitted with adapter such as .35 Cal. Rem rifle
A143	possible specific model, manufacture normally not reported		or .35 Cal. Winchester Model 95
A731	possible specific model, manufacture normally not reported	A762	Pistol, Auto, 380 caliber
A736	Autoloading pistol, Beretta, Model 1934, 380 Auto	A763	
A730	probably was ejected from an Italian Berreta .380 Auto	A/05	automatic; possible makes includes Browning, Beretta,
3730	caliber PK Semi Automatic pistol	3765	& Astra
A738	Astra 380 ACP; Beretta 380 ACP; Bernardelli 380 ACP;	A765	.38 caliber automatic
	This cartridge could have been fired by several weapons,	A766	380 semi-auto pistol; Beretta/P-37
122227	any of the above three	A768	Unfortunately did not have time to do this; requires
A739	Pistol; Beretta*; Modelno opinion; .380 Auto	1	literature not presently available in our laboratory
	*Oral report only as a possibility	A769	9m/m (.380 caliber) ASTRA semi-automatic pistol -
A740	.380 Auto	i an i si ta ta ta	Constable Model; .380 caliber BERETTA semi-automatic
A742	.380 automatic caliber Beretta model 934, Astra "Constable",		pistol, Model 1934; 9m/m (.380 caliber) BROWNING semi- 🕤
	or Sterling PPL, more than likely the first listed.		automatic pistol, Model 1910; 9m/m (.380 caliber) LLAMA
			semi-automatic pistol, Model VIII. NOTE: All 9m/m CORTO
	しったり あい かちょう あいし うちん しいしかがち あいりがたい あいかく ための ちょう		and .380-caliber semi-automatic pistols should also be
			included on the above list

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Table 20, Continued

A745

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was fired from a semi-automatic (or possibly a full-

Table 20,	Continued	Table 20,	Continued
A772	Walther PP, PPK, PPKS .380 Auto Astra .380 Some Star revolvers	A802	Astra - Beretta, P. Model 1934 - Couger - Bergman, T. Mod. 4 - Bernardelli, Italy - Bufalo, Spain - C.Z.
	Browning or FN		Mod. 1938 Czech F. N. Browning 1910 Frommer - stop -
A777	.380 caliber cartridge case manufactured by		Galesi, Model 6 Italy - High Standard Mod. G - Llama,
	Winchester-Western and could have been fired in a		Spain MAB - Model C - Mod. D, France - Ortgies - DWA,
	.380 caliber semi-automatic pistol		German - Savage - Star, Spain Tauler, Mod. 3, Spain -
A779			Walther, PPK Mark 11 - PP - PPK; .380 auto cal. 9mm
	9mm or 380 automatic weapon		corto - 9mm Kurz; best probable - new Beretta models
A783	Astra mod 3000		possible FN
	Beretta mod 1934	A805	.380 Semi-auto. pistol
	Savage	A813	Semi-automatic; Walther PP; Colt: Savage 1917
	Walther PP-PPK/S-PPK	A814	.380 Auto or 9 mm; Beretta - most probable; Llama
	all .380 cal.	A815	most likely fired in a 380 (9mm Corto) Beretta autoloading
A784	type - automatic pistol; make - Astra, Savage, V. Bernardelli	1013	pistol; (model 1934 in work notes)
	Gardone, Walther, and/or Beretta; model - indeterminable;	A818	Beretta M 934 .380 caliber semiautomatic pistol.
	caliber - 380 automatic	AOTO	
A785	Semi-Automatic Pistol; Beretta; .380 Caliber		Also could be from Bernardelli Gardone UT Model 60,
A786	.380 caliber pistol. Gross examination shows the		Remington Automatic, Ceska Zbrojovka E 7-39, and others
	cartridge case to have class characteristics consistent	A820	no data available on probable weapon
	with .380 calibre Beretta pistol. Do not have a	A823	any weapon which will chamber and fire the .380 auto
	complete firearm collection for comparison		cartridge
A787	Cartridge case is Winchester Western .380 automatic.	A827	Pistol; Beretta, Model 1934, .380 auto
	It has a round firing pin impression with extractor	A830	most probably fired in a .380 Beretta 1934 autoloading
	mark in 9:00 o'clock position. We do not have		pistol
	the proper reference material to determine make and	A831	.380 semi-automatic pistol
	model or semi-automatic weapon this cartridge case was	A833	Semi-automatic; .380 ACP (9mm short); Walther PPK,
	ejected from		PPKS, PP, - Astra, CZ, Beretta
A789	380 Automatic possibly Astra or Beretta	A835	.380 Cal. P. Beretta Model 1934 Semi-Automatic Pistol
A790	.380 caliber Beretta semi-automatic pistol		.380 Cal. P. Beretta Model 70 S
A792	cartridge case could have been fired in any of		.380 Cal. is also referred to as 9mm Browning short,
	the following 380 auto pistols: Bernardelli, Walther,		9mm Kurz and 9mm Corto
	Beretta, or Mauser, or other 380 pistols having	A837	ejected from a caliber 380 Beretta model 1934
	similar orientation of extractor and ejector	A838	most probably ejected by a semi-automatic pistol
A794	it is most probable that this cartridge case was		chambered for .380 Automatic Pistol ammunition.
	fired in an automatic pistol Beretta type (a number		Different designations for the same cartridge include
	of models are possible) caliber 9 mm short (.380 auto)		9 mm Kurz and 9 mm Browning Short. This cartridge
A795	Beretta 1942, 380 cal.; Beretta 9mn (corto);		could also be fired in weapons chambered for the 9 mm
A133	Astra 9 mn 400		Parabellum, .38 Automatic Pistol and 9 mm Browning Long.
A797			This laboratory does not have enough reference information
A/5/	Beretta Mod 1934; Bernardelli Model #6; Remington Mod 51;		to indicate make and model of gun from the marks on the
	FROMMER Military Pistol 37M; Colt Hammerless;		cartridge case. However, this is a common cartridge,
$(a_1,a_2,\ldots,a_{n-1},a_{n-1},\ldots,a_{n-$	possibly other weapons which I have no data on - ref:		especially in foreign-made guns. Manufacturers of
	extractor/ejector angle - could also have fired this		semi-automatic pistols chambered for the .380 Automatic
	cartridge. Fired in either a .380 or 9mm Automatic		Pistol cartridge include Astra, Beretta, Browning, W Walther,
3700	pistol		Llama, Savage and Remington among others.
A798	probably fired from a Beretta Model 1934 .380	A839	semiautomatic pistol .380 A.P. caliber having six lands
	semi-automatic pistol		and grooves, right hand twist
A799	autoloading pistol, .380 (9 mm) Cal.	A842	Automatic; Beretta; possible 1934; 380 automatic
	化盐酸盐酸盐 医结核性 法保证 法法律保证 法法律法律 医胆管 医胆管 化化量化 的复数形式		menometrol perceral hospinie 12341 300 diffomderd

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Table 20, Continued

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A847	most probably fired in a .380 caliber or 9 mm.
'	Browning short caliber semiautomatic pistol
A848	Semi-automatic pistol; .380 (9 mm Short)
A852	a .380 automatic weapon with an extractor-firing pin impression; ejector angle of 180°
A853	Automatic, caliber .380 or 9 mm make & model unknown
	Beretta (1934 Cougar) .380 caliber semi-automatic pistol
A854	Beretta (1934 Cougar) . 350 Caliber Sent aucomotico Fibera
A855	Semi-automatic pistol - Beretta380 No opinion other than cartridge case displays a slight
A856	No opinion other than cartridge case displays a sight
	bulge indicating that it could have been fired possibly
	in a weapon chambered for 9 mm rather than 0.380.
A860	.380 Winchester-Western make cartridge case of the type
	intended for use in a semi-auto pistol. It bears
	indication significant of the "Beretta" pistol .380 caliber
A861	Semi-automatic pistol caliber .380
A866	.380 automatic (no information on extraction patterns)
A868	The marks exhibited on the cartridge case indicate that
	the most probable weapon which may have fired the
	cartridge case would be a .380 auto caliber semiautomatic
	Weapon
A869	.380 auto Beretta semi-automatic is the most probable weapon.
A873	a 380
A874	380 Semi-Automatic P. Berreta Gardone VT Series
A880	due to a limited reference collection and specifications
nuuu	available to this Lab it could be stated only that the
	cartridge markings are consistent with those of the
	Beretta 1934 Model caliber .380. Other weapons unavail-
	able for comparison may display similar characteristics.
A883	fired in, and ejected from, a .380 (9mm short) semi-
1000	automatic pistol. Based on an examination of the firing
	pin impression, breech face markings, extractor and
	ejector markings, it is consistant with having been
	fired in a Beretta Model 1934 semi-automatic pistol
A884	Semiautomatic pistol, blow-back operated; .380 or 9mm
N004	Short caliber
A888	Pistol; Pietro Beretta; .380 Auto Caliber
A891	Semi-automatic pistol - Caliber .380 Auto or 9mm.
	There are a vast number of pistols of the above calibers
	from which this cartridge case could have been ejected.
A892	.380 auto case having characteristics consistent with
	cartridge cases fired in a model 1934 Beretta .380
	 autoloading pistol
A894	Pistol (Semi-auto), .380 auto caliber, no other analysis
A895	A .380 automatic
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Table 20, Continued

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	A897	most probable that is was fired in a .380 caliber, semi-automatic pistol made in Italy by P. Beretta
	A899	Semi-auto pistol, caliber 380 of following makes: Astro-Unceta
		Cia: M-300, M-4000; Pietro Beretta:1915.1951; caliber
		.38: Astra-Unceta y Cia:M-400, M-600, M-600/43, M-3000;
		Pietro Beretta: 1934, 1942, 1950; High Standard G; (CZ)
		Czechoslovakia: 1924, 1928, 1938.
	A902	Semi automatic pistol, .380
	A903	Most probable weapons are: Savage automatic pistod,
		Model 1915-1917; Walther automatic pistol, Model PP & PPK
	A904	Savage .380 Auto loader
		Walther .380 Auto loader
	A908	could have been discharged within the following type of
		auto-loading pistols; being of the caliber .380 class
		(9 mm). Beretta, Model 934, .380 Auto.; Astra, 3.000,
		.380 Auto.; Fimaru, .380 Auto.
	A915	The most probable firearm to have fired this bullet would be
	1200	a .380 A.C.P. caliber Italian P. Beretta semi-automatic pistol,
		however, no .380 A.C.P. caliber of 9mm caliber firearm with
		rifling specifications of six lands and grooves with a right
		hand twist should be overlooked, such as a Czech. C.Z. Model
		1938.
	A920	.380 Auto caliber; list of weapons which could have fired
		is extensive. Any weapon which will chamber and fire
	1	a .380 auto or 9mm caliber cartridge should be submitted
		for comparison
	A923	fired from a semi-automatic pistol. Caliber .380 auto.
		and again there are no standards for comparison available
		but sufficient quantities of weapons of this caliber have
		been examined to conclude that the cartridge case was
		fired in a Beretta manufactured pistol.
	A925	could have been fired from a Beretta Model 1934 semi-
		automatic pistol
	A927	this cartridge case could possibly have been ejected from
		any number of .380 caliber weapons; however, the firing
		pin impression, and certain markings on the case do not
		rule out the possibility of the case being placed in an
		adaptor and being fired in a rifle of similar caliber.
	A935	Caliber 380 or Caliber 9MM short autoloading pistols
	A938	Italian Beretta 1934/Semi-Auto. caliber .380. The
		peculiar firing pin impression along with the relationship
		of the extractor and ejector markings are compatible to
		the '34 Italian Beretta
	A942	most probably ejected from a Beretta semi-automatic pistol
i.		of .380 caliber, generally known as mod. 1934 or, more
		recently, mod. 934 which is identical. This is a general
		model designation and they may be found, marked with the
		year of manufacture, from 1934 on, The caliber designation
	an e esta a	on the weapon may also be 9mm Corto or 9mm C.

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÷.,	Table 20,	Continued
	A944	discharged caliber .380 Auto, Winchester-Western cartridge case and could possibly have been discharged in any of the
		following auto loading firearms: Beretta .380 Auto;
	2050	Astra .380 Auto; Fimaru-Fegyuer .380 Auto
· 1	A958	Since we find no well defined extractor mark to compare with the possible ejector mark exhibited on the base of
		the cartridge case, we are unable to determine any
		extractor/ejector angle definitely. Once again due to
		the lack of sufficient data and/or reference materials
		we are unable to determine definitely in what make and/or
	A961	model this cartridge case was fired. no data received for this question
	A962	no information given
	A969	.380 Beretta
	A970	Semi auto pistol; Walther, Beretta; Model - ?; 380 ACP
	A974	caliber .380 auto cartridge case has typical firing pin impression produced by Beretta along with ejector &
		extractor marks positioned by Beretta automatic pistols.
	A975	Semiautomatic, Italian Beretta; Model 1934; .380 auto
	A978	380 auto cartridge case manufactured by Winchester Western
		and fired from a semi-automatic weapon of the type listed
	A979	below: Astra; Walther; Beretta 9mm; Beretta; Model 1934 or 1951
	A980	ejected from .380/9m/m Corto pistol (Semi or full auto);
		make and model unknown
	A984	principal suspect weapons (in order of probability) are
-		.380 Auto (9mm short, Corto, Kurz) manufactured by
	A985	P. Beretta, Models of 1934, 1915, and 34-42 9 mm Beretta most likely
	A989	Winchester-Western .380 Auto, Beretta, Astra, Walther PPK
	A994	(handweapon) Pistol (semi-automatic or automatic)
		(make & model) - Walther, Tauler, Suomi, Star, Smith and
с. Ч		Wesson, SIG, Savage, Radom, Ortgies, Mugica, Mauser, M.A.B., Luger, Llama, Lahti, Kirikkale, Hi-Standard,
		Handy, CZ, Campo Giro, Brixia, Bernardelli, Beretta,
		Astra, Sauer, etc380 Caliber cartridge casing (9MM Short)
		Typical semi-automatic or automatic cartridge casing (any
		semi-automatic or automatic pistol capable of housing and
		firing said .380 Caliber (9MM Short) cartridge casing whose angular relationship of extractor and ejector are the same
		as those on the casing submitted
	A995	the most probable weapon is a 380 auto caliber Beretta pistol
	A998	Winchester Western .380 Auto: Browning .380 Pistol 9 mm Corto;
	an an an the Solar	Beretta .380 Pistol 9mm Corto; & many other possibles

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	Table 21	,		SUMM	ARY TABLES FOR IT	<u>EM 1</u>	ing panaharan <u>An</u> g panaharan	
AB ODE	CLASS Characteristics Given by Lab	AVERAGE MEASURED DIAMETER inches	APPROX. WEIGHT grains	NOTED SOLID LEAD	AVERAGE LAND WIDTH/ GROOVE WIDTH inches	TWIST inches/turn or angle	(KNURLED) CANNELURES NOTED	OTHER NOTES
703	R-38-SPL-5-R	. 354	162.4	Ŷ	.103/.115	-		Probably a 158 grain; 38 SPL
707 708	R-38-SPL-5-R R 5-R	,350	158.0 157.4					load. No bone distortion; standard
710 712	R-38-SPL-5-R R-38-SPL-5-R	.354	157.4	0	.0971.100 land=groove			lond
713 715	R-38-SPL-5-R R-38-SPL-5-R	.355	157.4		.115/.103			
717 718	R-38-SPL-5-R R-38-SPL-5-R R-38-SPL-5-R	.350 .355	157.5 157.5 157.7	Y	/.103 /.103 /.109		2 + 1	Possible std powder load: land
724	R-38-SPL-5-R	. 359	158	Y	.100/.112	1 in 18"	crimp ring	approx. = groove width.
727	R-38-SPL-5-R	.356	157.4		.113/.101		2	Consistent with R-P factory
729	R-38-SPL-5-R	.345	157	Ŷ	.10/		2+1	load.
731 736	R-38-SPL-5-R R-38-SPL-5-R	.355	158 158	Y Y	/.099	1 in 19"	crimp ring	
738	R-38-SPL-5-R	.355	157.9	Y	.108/.108		2 2 + 1 lub ring	Characteristic of std vel Rem-Pet 158 grain. Photographs sent with data.
739	R-38-SPL-5-R	.353	157	Y			2 + 1 unknurled	
740 742	R-38-SPL-5-R R-38-SPL-5-R	.353 .349	158		.102/		2 2	Probably 158 grain std vel R-P
745	R-38-SPL-5-R		157.4	Y	ratio l:1			commercial manufacture.
746	R-38-SPL-5-R	.354	157.7		,100/	a da ser a ser No ser a	2 + 1	Probable load Remington 158
747	R-38-SPL-5-R	.352	157.5	Y .	.093/.121		crimp groove 2 + 1 crimp groove	Cup base R-P, .38 SPL, 158 gr.
748 750	38 5-R R-38-SPL-5-R	.354 .35	156.6 157.9	Y Y	.110/.122 ratio 1:1		2 2 2	Consistent w R-P .38 SPL, plain lead, flake powder.
751	R-38 5-R		157.8				0	Consistent w Remington Arms
754	R-38-SPL-5-R	.355	158	Ŷ	examined		Knurled	Consistent w 158 gr. lead
755	R-38-SPL-5-R	.354	157.8				rings 3	.38 SPL R-P manufacture.
757 760	R-38-SPL-5-R R-38-SPL-5-R	.354	158 158		.97/ .100/.110		2 2 + 1 crimp	Probable Remingtion Police Serv 38 SPL Index 5138.
761	R-38 5-R	.361	157.9		,104/.102			$\sigma^{\mathcal{A}}$
762 763	R-38 5-R do not normally pro			Y normally j		ts to see if the	v are shot from	the shife gun.
765 766 768	R-38-SPL-5-R R-38-SPL-5-R R-38-SPL-5-R	•356	151,6 158.6 158	Ŷ	.091/.109 3 degrees		2	Full load. 38 SPL or 357 magnum load.
769	R-38-SPL-5-R	5/16	156.9			0 O	2	38 SPL probable load, poss- ible reload.
772	R-38-SPL-5-R	.357358	158	¥				Round-nose .38 special Reming-
777	R-38-SPL-5-R R-38-SPL-5-R	.357	158.0	Ŷ				Probable load 3.5 gr. smoke- less powder.
783 784	R-38-SPL-5-R R-38-SPL-5-R	.3,54	157 157.79	Y	.110-,115/.100		4 2 + a depress	Compared to known standards. ed ring probable load-flake powder, manufactured by R-P.
785	R-38-5PL-5-R		158	Ŷ	.116/.114		2 + 1 grease	
786 787	R-38-SPL-5-R R-38-SPL-5-R	.355	158 151.8	Ŷ	,10/.115		2	Probable Remington 158 gr.
789 790	E-38-SPL-5-R R-38-SPL-5-R	\$349 •357	157.6 158		.100/=land	3-4 degrees	3 2 + 1 crimp	lead bullet. R-P manufacture.
792 794	R-38-SPL-5-R R-38-SPL-5-R	.352	158 158		.102/ °	3 дедтеев	2 + 1 crimp 2 + 1 lub-	Remington, not high speed.
795	R-38-SPL-5-R	.353	157.1		.104/.107		rication	
197 198	R-38-SPL-5-R R-38-SPL-5-R	.35	157 158	¥	/.103 .116/.102		2 2 + 1 crimp	Factory load, R-P
799	R-38-SPL-5-R	0 8.9mm	158	¥	.098/.107。	_{1m} 18+11	2+1	Probable R-R .38 SPL std vel
302	R-38-SPL-5-R	• 358	157.6		.102/.113	1. 18 to	erimping 2	R-P .38 SPL manufacture; pro- bable 3.5 gr dupond pistol
105 313	R-38-SPL-5-R R-38-SPL-5-R	.353	157,9 158	Y	.099/.113		2+1.	power.
814	R-38 5-R		158	Y		1997 - 1997 -	seating 2	Lead (high speed) 158 gr. Rem-
815 818	R-38-SPL-5-R R-38-SPL-5-R	≈.354	153.5 158	Ŷ	.099/	و مرکبی در زند. مرکب فیلیمیت کول ۲۰ مرب کار روط	2	ington Police Service. Smokeless powder; "F" crimp;

lab Code	CLASS CHARACTERISTICS GIVEN BY LAB	AVERAGE HEASURED DIAMETER Inchos	APPROX. WEIGHT grains	NOTED SOLID LEAD	AVERAGE LAND WIDTH/ GROOVE WIDTH Inches	TWIST inches/turn or angle	(KNURLED) CANNELURES NOTED	OTHER NOTES
A820	R-38-5PL-5-8	a maha pinakan seria di seria para paraha	157		"096/.10 7			.38 SPL or .357 magnum.
A823 A827	R-38 5-R R-38-SPL-5-R		158 158		ratio 1:1 ,117/,102		2 2 + 1	Consistent R-P 158 gr. factory
A830 A831	R-38-5PL-5-R R-36-5PL-5-R	.375 .352	158 158				crimping 2	load. Probable R-P manufacture.
A833	R=38+5PL+5-R	1354	157.9	T	.016/.115	$(2,3) \in \mathcal{E}(\mathbb{R}^{n})$	2	Consistent R-P 158 gr. lead
A835	R-38-0815-R	, 356	158.1	Y	.103/ 117		2	round nose police service .38 SPL R-P manufacture; round
AB37	R=38-5PL-5-R	.353	157.5	Y	.099		2 + 1	nose; slight cup base Probable .38 SPL Remington
8038	R-38-521,-5-R	.350	157	o Y	.097/.112		crimping	158 lead round nose.
A839	R-38-SPL-5-R	R.	156.75				2	Revolver type unplated bullet;
A842 A847	R-38-SPL-5-R R-38-SPL-5-R	,358 ,356	158 157.7	Y			2 2 + 1	exhibits slippage. Probable load - std factory R-P
A048	R-38-SPL-5-R		158,0	Ŷ	1 106		smooth	
A852 A853	R-38-SPL-5-R R-38-SPL-5-R	.353 .351	157.9 158	¥ Y	/.100		2 + 1 crimp	Round nose, pocket base.
A854 A855	п-38-5915-к п-38-5915-к п-38-5915-к	.357	157.9 157.7	Ŷ			2	Remington brand. .38 SPL 158 gr. R-P Centerfire,
A856 A860	R-38-8PL-5-k R-38-6PL-5-R	.354	157.5 157.8	¥	land=groove .104/.115			approx, vel. 855 FPS in 6m. BBL Lead sufficient to expand base.
A861 A866	R-35-8PL-5-R R-38-6PL-5-R	.353 .358	157 158				2 2	Non-magnum lead.
A868 A869	R=38-6PL-5-R 38-SPL-5-R	.356	157.5 154	Y .	.11/.10		2	10.21 grams
A873	R-38-6PL-5-R	48	157.1					
A874	R=38~SPL=5-R	.353	157.9		.111/.101		2 sets vert bar	
A980	R-38-5PL-5-R	.357	158.1		.101/.115	1 in 18"		Possible Remington manufacture;
1983	R-38-SPL-5-R	, 356	157.5		/.117 ·		2	158 gr38 5%, load. Possible Remington manufacture possible reduced load.
л088 Л891 Л892	R-38-SPL-5-R R-38-SPL-5-R R-38-SPL-5-R	, 354 , 357	157.8 158 157.7		/.100		2 2 2 + 1	Probable load 158 gr. R-P Probable R-P; smokeless powder.
A894 A895	R=38=9PL=5=R H=38=5PL=5=R	.352	157.8 158	ан 1997 - Алт Ма	.103/ .115/		crimp	round nose, con ave base
A897	k-38-8915-R		158.0	¥	.1117.105		2 + 1	Consistent with Remington
V880	R=38-SPL-5-R	.352	.157.5	Y	.098-,100/		crimp 2	Round nosed, due to lack of
		15						pitting on the base of this bullet it has probably been
4902	R-38-SPL				not consistent			fired from a .38 SPL type of we Additional information not
4903° 4904	R-30 S-R R-38-8PL-5-R	.354 .357	157,6 158,2		.114/.102 .120/.115		2	provided to submitting agency.
A908 A915	R=38-SPL=5=R 38=SPL=5=R	+357	157.2	Å	.114/.100		2	R-P manufacture.
1920 1923 1923	30-591.+3-R R-38-5915-R R-30-5915+R	+ 356	157.4 157.9 157.6	Ŷ	.11/,10		2 2+1 smooth	Probable Remington manufacture. Probable Remington std vel.
A927	R-38-SPL-5-R	.352	158.1		.099/			1158 gr38 SPL
8935 " 8930	R-38-SPL-5-R B-38-SPL-5-R	.355 .353	157,7 157.8	X X	/.099	4-5 degrees	2 2 + 1 crimping	Compatible with R-P
A942 A944	R=38=8P1=5=R R=38=8P1,=5=R	.353 .357	157.1 157.4	¥	land=groove .112/.101		crimping 2	Probable land R-P 158 gr. bulle Remingtion-Pet manufacture.
A958	R-38-SPL-5-R	.153	157.9	X	.095/.116		2	Regular .38 SPL load, not high
A961	R=38=SPL=5=R	.355	157.9	¥ .	,115/.100	and a second second	2	vel. Remington-Pet manufacture.
A962 A969	R-38 5-R 38 5-R		158	¥	.100105/			
A97Q	-2-30-SPL-5-R	.352	158		.0981			
A974	R-38-SPL-5-R	.353	157.4		.105/.115		2	R-P type cupped base lead bulle
1975 1978 1979 1980	R-38-SPL+5+R R-38-SPL+5+R R+38-SPL+5+R R+38-SPL+5+R	.358 .356	158 158 158 158	n ¥ n an a 12 ¥ n an an ¥ 23 a	.100/.102 .103/.114 /.099 land=groove	1 in 18"	2	std vel R-P R-P manufacture; std 38 SPL
1004	5_30_000_E_*		157 7		101/			revolver load.
A984 A985 A989	R-38-SPL-5-R 38 R-38 5-R	.357	157.7 158 157.1	¥	,101/		2 + 1 crumping 2	Compatible with R-P Other data not normally reported 38 cal 158 gr.
A994 A995	R=38-SPL=5-R R=38-SPL=5-R	.356	158	X	land-groove		2	Probable load 2.5 gr.
A998	R=38+SPL=5=R		157.4		.102/.10		2	R-P, 7 grains smokeless.
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	Table 22				SUMMARY TABLE	ES FOR ITEM 2			
lab Code	REVOLVER	FIRING PIN MARKS	BREECHFACE MARKS	EXTRACTOR MARKS	EJECTION MARKS	BRAND	CASE DIMENSIONS inches	CANNELURES NOTED	OTHER NOTES 42.
A703	R-38-SPL	semi-	Lip at pin	None	None				Possible drug marks from firing
A707	R-38-SPL	spherical identifiable	hole identifiable	None	None	+			pin.
A708	R-38-SPL	rounded							Rounded floating pin, similar to S & W.
A710 A712	R-38-SPL R-38-SPL				None	R-P			Firing pin attached to hammer.
A713	° R-38-SPL		None	None	None	R-P			
A715 A717	R-38-SPL R-38	round end		None	None				Firing pin every short.
A718 A724	R-38-SPL 38-SPL	unique	unique	None		R-P	1.15 inches	1	Apears reloaded.
A727	R-38-SPL	circular		None	None				
A729 A731	R-38-SPL R-38-SPL	round hemispherical		None None	None		1.15 x 375		
A736 A738	R-38-SPL R-38-SPL	round		None	None	R-P			Photos sent with data.
A739	R-38-SPL	hemispherical	noted				t in the second second		Indentation probable caused by
A740	R-38-SPL	round		None	None				edge of firing pin hole.
A742 A745	R-38-SPL R-38-SPL	circular		None	None				No magazine lip marks. Works indicate floating firing pin
A746	R-38-SPL	noted	Lip at pin	star type	manual				Pin most likely hinged
			hole	. (j.	News		-		
A747 A748	R-38-SPL 38	circle, detail	ea	None	None	R-P			
A750	R-38-SPL								Heart shape facet in pin impress- ion
A751 A754	Not routine R	examination		None	None				
A755	R-38-SPL	circular		None	None	R- 7			
A757 A760	R-38-SPL R-38-SPL	hemispherical circular		None None	None None	R-F			Concave impressions.
A761 A762	R-38 R-38	hemispherical	n in the second s						Heart shape figure in center.
A763 A765	R-38-SPL R-38	1.	•	None	None				
A766 A768	R-38-SPL R-38-SPL	round			None				
A769	R-38-SPL	round off	ſ	None	None	Noted		Noted	Appears reloaded, distinctive mark on primer.
A772	R-38-SPL	round		None	None				
A777	R-38-SPL			None	None				Rimmed type cartridge used in revolvers, hand ejected,
A779	R-38-SPL	round, float-				R-P .38 SP	ч .	4	Firing pin impression is round with a half moon cut at one side.
A784	R-38-SPL	round, concave		None	None				
A785 A785	R-38-SPL R-38-SPL	circular roughly				R-P		single	Nickel cartridge casing, rim type. 2 distinct impressions on primer
		circular	1	None	None				(1200 and 400)
A787 A789	R-38-SPL R-38-SPL			None	None None	R-P .38 SP	ч ь [
A790	R-38-SPL	round		None	Nole	Baudantaa			Fired in revolver,
A792	R-38-SPL	round		None	NOLE	Remington .38 SPL			
A794	R-38-SPL	round	faint par- allel			*			Concentric ring machining marks.
A795 A797	R-38-SPL R-38-SPL	round high spot or	straight			the state			Recoil plate mark on primer.
A798	R-38-SPL	double hit hemispherical	yes	None	None				
A799	R-38-SPL	hemispherical		None	None	R-P .38 SP	L Std. velocity	<u>u</u> .	Rimmed, centerfire, firing pin
							na an tha an taon an tao Taon an taon an		impression and breech fare strine are probably identifiable.
A802	R-38-SPL	round, non- fixed pin		None	None	R-P	_		
A805	R-38-SPL	round, non- fixed pin		None	None	R-P			
A813 A814	R-38-SPL R-38-SPL	round concave with		None None	None None				
		a dimple					e e		
A815 A818	Not submitt R-38-SPL	ed for examinat	indistinct	None	None				
		side		none	Notice				
A820 A823	Comparisons 38-SPL	Tound	identifiable	None	None	R-P			Centerfire cartridge
A827	R-38-SPL	hemispherical	markings present	apparent None	apparant None			A CONTRACTOR	A
A830 A831	R-38-SPL R-38-SPL	hemispherical circular		None	None				Ball firing pin.
A833	R-38-SPL	circular				R-P		one	Nickel case, new style head-
			e 4						stamp, centerfire boxer primer, nickel seated brass,
A835	R-38-SPL	round		ана салана 1917 - Салана 1917 - Францияска 1917 - Франция 1917 - Францияска 1917 - Франция 1917 - Франция 1	₹.	R-P		one	Straight rimmed case, nickel, plated brass,
A837	R-38-SPL			None	None				Fixed firing pin. Fired in revolver or derringer
A838 A839	R-38-SPL R-38-SPL	hemispherical	6			R-P			Nickel plated.
	👔 👘 🖓 🖓 🖓	hemispherical		Sear	Sear		나는 문 말을 봐		Pin hole extrusion dign.

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lab Code	REVOLVER .38 SPL	FIRING FIN MARKS	BREECHFACE MARKS	EXTRACTOR MARKS	EJECTION MARKS	BRAND	CASE DIMENSIONS inches	CANNELURES NOTED	OTHER NOTES
A847	R=38 -SPL	hemiopherical	da international managements and a second second	None apparent	None apparent	R-P			Some impression of a firing pin hole impression.
A848 A852	R+38-SPL R-38-SPL	round		None	None	R-P R-P	0		
AB53	11-38-spl	round, slightly eccentive		apparent None apparent	apparent None apparent	R-P			
1854 1854 1855	R-38-6PL R-38-5PL	ball shaped round, curved p	oint	present None	None	R-P	₩		Firing pin pinned in hammer.
1856 1860	R R=38-spl			Nona	Nonë	R-P			No information available for comparison. Ball ammunition, circular rings
						n de la signa d General	, de .		on cartridge case head just be- yond primer, congitudinal striations on the cartidge case
861	R=38=4Pl.		visible						near the mouth. Some chamber markings.
866 868	R=38=5PI. 38=5Pľ	round round, alightly of t conter	DOMO		1	R-P			Hand ejected Nickel plated, some fire, light
069	R=38=SPL	round	ана на селото на село Области на селото на с	None	None				possible and chambering marks. Bears signs of having been double struck
873 874	38-SPL R-38-SPL	circular, with rounded nose	omall,partial half moon,	None	None	н. 1			
700	n. 10. 001	a an	around 1/4 of firing pin		143 A				
880 887	8-38-SPL	round	horizontal breech face olgnaturo	star type	star type				Swing out cylinders, approx. .087" thick firing pin bushing approx. 1/4" diameter
383 384	R=38-SPL R=38-SPL	circular ball shaped	visible for	None	None None				
			comparison purposes	Mone	иона				Primer surface is indicative of rather low pressure load.
188 191	R=38=5PL R=38=5PL	circular concave	н. 	None	None				Timber afri destat
194 192						.			Firing pin impression appears to have been struck on a slight downward angle.
194	a= 38=8PL a= 18=9PL	hemisporical		None	None	R-P			Nickel finish, centerfire, smoke less powder.
95	R-18-5PL	round		Nona	None				$\theta = \frac{1}{2} \left(\frac{1}{2} + \frac{1}{2} \right) \left(\frac{1}{2} + \frac{1}{2} \right)$
397 399	R=38-SPL R=38-SPL	rounded cylindrical		None	None	4	length 1,142" neck ,378"	One .208" from mouth	Centerfired, rimmed, single flas hole primer, small rifle primer
167 1613	R- 18- SPt. R- 18-SPL			None	None		rim ,435"		.175"diameter.
904 908	R=38-5PL R=14=5PL	round		None None	None None	R-P			Nickel plated case and primer.
915 920 973	R=38=5P1. 38=5P1. R=18=5P1.	noted egg shaped		None	None	R-P Remingtion			
9.5	R=38=9PL o	off centor, round_with a small crencent		None	None				
927	38-9PL	nearby round		None	None	R⊣P			Centerfire, residue in case.
235	R=38-SPL			~	indite	R-P			Appears suitable for comparison by firing pin impression and breechface markings on primer.
938	R=38=5PL	round, half moon imprena- ion		None	None	R-P			No indication of being reloaded.
742	R=38-SPL	round		smudged	4				Slight downward angle, very tigh chamber.
)44)58	R=38=5PL R=38=5PL,	round round and circular		None None	None None	R-P R-P			Nickel plated. Centerfire, numerous straiton on
181 162	R-36-6PL No informat	round		None	None	RP			ca. Nickel plated.
)69 170	R=38-SFL					R-P			
179 179	38-5PL R-38-5PL	of value for comparison round		None	possible None	R-P R-P	length 1.14"		Crimp ring .02", .18" from mouth top. Centerfire, identificable stria.
178 179	R=38=8PL R=38	round		None	None	Remington			Rimmed - extra long casing
80	1-38-SPL	repical of revolvers having the firing pin	no aign- aturo	None	None	R -₽			
184	R=38=6PL	attached to harmer none off center,	horizontal	faint		R-P			Nickel, firing pin mounted on
185	38	circular	stria						hammer. Not normally reported by this
180 194	R= 18=SPL R= 38=SPL	round off center, good markings	good . eignaturo	None None	None None	R-P			laboratory. Centerfire.
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	Table 23				SUMMARY TABLE	S FOR ITEM 3	생각 이 물건에 가장하는 것이 가지 않는 것을 했다.
LAB CODE	CLASS CHARACTERISTICS GIVEN BY LAB	AVERAGE MEASURED DIAMETER inches	APPROX. WEIGHT grains	NOTED FULL METAL JACKET	AVERAGE LAND WIDTH/ GROOVE WIDTH inches	d TWIST inches/turn or angle	44,
A703 A708 A710 A712	A-380-6-R A-380-6-R A-380-6-R A-380-6-R	.358 g .355	99.2 94.1 95.1 94.6	Y	.025/.123 w .046/ land=1/3 groove	e de la constante de la constan La constante de la constante de	Probably 100 gr, 9mm found. 95 gr. projectile. .380 ACP Type
A713	A-380-6-R	.351 pg	94.6		.129/.051 p		
A715 A717 A718 A724 A727	A-380-6-R A-380-6-R A-380-6-R A-380 R A-380-6-R	•358 •359 •354	94.7 94.5 94.5 95 94	Y Y Y	/.052 /.053 /.050 p .042/		Skip marks noted. Projectile did not fill bore; slippage present. Considerable slippage (old weapon).
A729 A731 A736 A738 A739	A-380-6-R A-380-6-R A-380-6-R A-380-6-R A-380-6-R A-380-6-R	.35 .350 g .355 .356 .353	95 95 94.5 94.3 95	Y Y Y	.05/.13 /.050 p .103/.05	1 in 10"	Characteristic of .380 auto, W-W metal jacket lead.
A740 A742 A745	A-380-6-R A-380-6-R A-380-6-R	,353	95 95		.049/	¢.	W-W commercial manufacture; std commercial luad.
A746 A747	A-380-6-R A-380-6-R	•356 •35 7	94.9 96	Ŷ	.051/ .048/.113		Frobable load380 auto. 95 gr. FMJ W-W, Open base Western X, 95 gr. FNC index 380 AP.
A748 A750 A751 A754 A755	A-380-6-R A-380-6-R A-380-6-R A-380-6-R A-380-6-R	.362 g .355 .351356	95 94.6 95.7 96.2 95.1	Y Y Y Y	.059/.134 w .130/.045 p .053/ .046049/		
A757 A760 A761 A762 A765	A-380-6-R A-380-6-R A-380-6-R A-380-6-R A-380-6-R	.355 .359 .359 .35 .35 .352	94 68.1 94.9 95.3	Y	.046/ .050/.130 .155/.061 .049/.131		W-W 95 gr. FMC
A766 A766 A768 A769 A772	A-380-6-R A-380-6-R A-380-6-R A-380-6-R A-380-6-R	.352 5/16 .356357	95.3 96.3 95 94.8 95	¥ Y	.049/.131 narrow/wide	5° 20°	Full load of slightly reduced. .300 load. No skidding. No cannelure.
A777 A783	A-380-6-R A-380	.355357	95.0 94.9	¥	.125130/		Probable load 2.5 grains of smokeless powder. No contamination.
А784 А785 А786	A-380-6-R A-380-6-R A-380-6-R	·351-·358	94.57 94.7 95	Y Y	.045050 .53/.132		No cannelure, load appears to have been flake powder. Friction tight cannelure. No cannelures, .380 full jacket with exposed lead core at base.
A787 A789 A790 A792 A794	A-380-6-R A-380-6-R A-380-6-R A-380-6-R A-380-6-R	.351 .355	94.7 95 95.1 95		.045/.082 .5/.13 .0453051/ .045	approx. 6 ⁰	No cannelure. Length .448", land/groove width ratio 1-2.6. Length .450", no cannelures. No cannelures. No cannelures, bore diameter approx351"
A795 A797 A798 A799	A-380-6-R A-380-6-R A-380-6-R A-380-6-R	.35 .355357	95.1 94 95 95	Y Y Y Y	.050/.123-/125 /.047051 .1302/.0476 .0475/.1295	pitch 9 ⁴ inches/turn	No cannelures. No cannelures. No cannelures. lenght 11,4mm, identifiable strike are present.
A802	A-380+6-R	.358 g	95.2		.075/.140		Land diameter ,351, no cannelure, probable load 2.5 grains.
A805 A813	A-380-6-R A-380-6-R	.357 g	95 95	Y	.050052/ .127130		Land diameter .347", no cannelure, 3.3 grains W-W powder.
A814 A815 A818	A-380-6-R A-380-6-R A-380-6-R	.358	95.37 95 1/8 95		/,045048 .047052/		No cammelure. Lenght .453"
A820 A823 A827 A830 A831	A-380-6-R A-380-6-R A-380-6-R A-380-6-R A-380-6-R A-380-6-R	• 355 • 35	95 95 1/8 95	Ŷ	.047/ .13/.05 .1302/.0476		No cannelures. No cannelures. Land to groove ratio 1:2 1/2.



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Table 23, Continued

2.			<u> </u>		Table	23, Continued	
LAB CODE	CLASS CHARACTERISTICS GIVEN BY LAB	AVERAGE MEASURED DIAMETER Inches	WEIGHT	NOTED Full. Metal Jacket	AVERAGE LAND WIDTH/ GROOVE WIDTH inches	TWIST inches/turn or angle	OTHER NOTES
A833	A=380-6-R	.350358	94.6	Y	.050052/	1	
лвээ Лвэт Лвэт Лвэв Лвэр Лвэр	л-380-6-R л-380-6-R л-380-6-R л-380-6-R	- 354 351 9mm	95 1/4 95.3 94 3/4	Y Y Y Y	.128129 .050/.129 44-46/ .046/.126		Winchester-Western manufacture, No cannelure. Round nose. No cannelure.
A842 A847 A848 A852 A853	A=380=6=R A=380=6=R A=380=6=R A=380=6=R A=380=6=R A=380=6=R	9.1mm .356 .357 .352357	95.97 95.97 95.46 95.3 95	Y Y Y Y	1.050		No cannelure, probable load- standard factory W-W brand. Length .454", no cannelures. Lead core. Length .451", no cannelure.
л094 Авээ Л096 Ав60 Ав61	л- 380+6-1 Л- 380-6-1 Л- 380-6-1 Л- 380+6-1 Л- 380+6-1 Л- 380+6-1	.3578 .351357	94.8 94.83 95 94	Y Y	.053/.128		No cannelures. Number of lands approx, 2.7 times number of grooves, No cannelures. No cannelures.
A860 A808 A809 A873 A874	A=380=6-R A=380=6-R A=380=6-R A=380=6-R A=380=6-R	.356 .355 g .359 .346 g	95 95 1/5 95 94.5 95,1	Y	.13/.05 .053/ .128130/		No cannelure. Ratio 2 1/2:1, land diameter .357, not cannelures. Land diameter .351
A880 A883 A884 A886	A-380-6-R A-380-6-R A-380-6-R A-380-6-R	.3 3 5 .350-	95.0 95 95.0 94 7/8	Y Y	.048050 .052/.129 .051/	10/1	No cannelure. No cannelure, No cannelures, similar to W-W .380 Auto. No cannelures, probable load 95 grain W-W.
A891	A≈380=6=R	.357 .357	95.4	a Y 1			No cannelures.
лву2 Ав94 Ав95 Ав95 Ав97 Ав99	1 A=380~6=R A=380~6=R A=380=6=R A=380=6=R A=380=6=R	.358 .391 g	95.4 9548 94.82 95	Y Y Y Y	.04870527 .129/.052 .048050/		No cannelures, fired by smokeless powder. brl land width .050. No cannelures. Flat lead base.
A902	A-380	1					Do not provide this information.
A903 A904 A908 A915	А~ 380~6-R А~ 380~6-R А~ 380~6-R А~ 380~6-R А~ 380~6-R	•356 •357 •359	94.4438 95.0 94.9	Ŷ	.125/.051+.053 .132053 .1277/.0518		No cannelures.
A920 A923 A929 A929 A927 A915	180>6-r A-380-6-r A-380-6-r A-380-6-r A-380-6-r A-380-6-r A-380-6-r	.358 .3546 g .357	95 95.0 95.1 95 94.77	Y Y Y Y	.13/.05 .049054/		No cannelures. Winchester manufactures. Length .449", no cannelures, probably Winchester make. Bore diameter .350. Suitable for comparison by striations on lands and grooves.
А942 А944 А958 А958 А961 А962	Λ~)60-6-R Α~]60-6-R Λ~ 180-6-R Λ* 180≈6-R Λ* 180≈6-R Λ~ 180-6-R	•3575 g •357 •151 •J50	94.49 94.9 95.1 94.97	Y Y Y	.1274/.0532 .046/.0501 .046065		No cannelures. Mo cannelures. Diametter of lands .357.
A969 A970 A974 A975 A978	A= 190: 6=R A= 180=6=R A= 160=6=R A= 180=6=R A= 180=6=R A= 380=6=R	.358 g .3575 .355 .357	95 94.95 95 95.4	Y	.051/ .055/.135 .050/.127 .047/.130		Winchester-Western type base characteristics. No cannelures, length .450".
л979 Л980 Л984 Л985 Л985	∧~380~6~R ∧~380~6+R ∧~380~6+R ∧~380 ∧~380 ∧~380~6~R	.354.357	95 95.9 94.5 95 94.24	Y Y Y	.043/.047 .0500521	9/1	No cannelures, no crimping grooves. No cannelures. Approx. ratio of lands and grooves 1:2, no cannelures.
A994	A=380=6=R	.355	95	¥	0/7/ 100		No cannelures,
A995 A998	л- 300-6-R Л- 780-6-8		95 94,9	Ŷ	.047/.129 .05/.13		No cannelures, 4 grains smokeless.
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SUMMARY TABL

	Table 24					ABLES FOR IT			46
LAB CODE	AUTOMATIC 380	FIRING PIN MARKS	BREECHFACE	EXTRACTOR MARKS	EJECTOR MARKS	BRAND	CASE DIMENSIONS	CANNELURES NOTED	OTHER NOTES
A703	A-380	flat tip		3:00	9:30	g			n an
A707	A-380	with protrusion flat and round		12:00	6:00				
A708 A710	A380 A380	large, shallow		directly	opposed				Disgram of firing pin, Ejector marks do not extend to
A712	A380	inner ring				W-W			end of rim.
A713	Not routine	for this lab.					9		All marks appear adequate for comparison.
A715 A717	A-380 A-9mm	flat end round flat		directly 9:00	opposed 3:00				Diagram of case face. Possible clip marks; slight bulge
A718 A724	A-380 A-380	bottom bull's eye	good impression			W-W	x.675		Marks described but not identified.
A727	A-380	circular		3:00	9:00				
A729 A731	A-380 A-380	round im- pression circular,		3:00	9:00 12:00	W-W	.374x .671		Ejector mark recton gular.
WAT	X-200	flattened		wide	from extractor		13144 1071		Please where there a farett
Å736 Å738	A-380 A-380	round, flat		12:00 4:30	8:00 9:00	W-W 3BOACP		a anta Secondaria	Firing pin 12:00 on primer. Diagram and photos with data.
A739	A-380	round- flat- tened		180° apa					Smaller ring in center of pin impression,
A740 A742	A-380 A-380	round circular, flat		180° apa		W-W W-W			
A745 A746	A-380 A-380	hot faced 2 concertric circles		180 ⁰ apa 3:00	9:00			0	Tiny nipple at center of pin. Horizontal mark near case throat 3:00.
۸747		.068" dimple .027"		.102" oppos	ite .048				
A748 A750	A-380 A-380	large, round donut shape	virtually absent	opposite	rectangle	W-W			Quality of marks varied.
A751 A754	Not routine	for this lab. , circular,		noted	noted		29		
A755	A-380	flat flat wide circle vith	3:00	9:00		an An Anna Anna			
		an inner flar circle in					. (
A757 A760	A-380 A-380	center. round, flat circular, flat		3:00	9:00 9:00				
A761 A762	9mm A-380	hemi., 2		3:00	9:00				
		concentric circles	•			R			
A763	Normally th	is lab just compa	res bullets to s	ee if they a	re shot fro	m the same gu	n.		
A765 A766		round	1	12:00	7:00	·			Centerfire. Ejector marks characteristic of auto loading weapons.
	No determin A-380			noted on	mark on				Deep strictions, small dent on side
		center		front of . rim	head				of case.
				1000	l .				
A772	A-380	round and flat with a machined		1800 rel 1800	ationship apart				
A777	A-380	protrussion	insufficient number	180 ⁰	relation	WW			
A779	A-380								
A783	A-380	circular, almos flat across	t a a	present					Chamber marks present.
A784	A-380	bottom round,flat bottomed		180 ⁰	apart				
		depression				and			
A785 A786	A-380 A-380	circular flat, circular		12:00 12:00	6:00 6:00	W-W		'single	Rimless brass casing.
A787	A-380	round		3:00	3:00	W-W		-	
A790	A-380	circular		12:00 3:00	6:00 9:00	Winchester		one	
A792	A-380	round		2100	3+00	utheneorel.			



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LAB	AUTOMATIC	FIRING PIN	BREECHFACE	EXTRACTOR	EJECTOR		CASE DIMENSIONS	CANNELURES	
CODE	350	MARK5	MARKS	MARKS	MARKS	BRAND	inches	NOTED	OTHER NOTES
A794	A-380	double con- centric		180 ⁰	apart				Paired striae on side of casi
		ring, flat tipped im-	en grennen en se					4	en esta a la seconda de la Seconda de la seconda de la
A795	A~360	pression						а.	
A797	A-380	flat		12:00	6:00 and	ш. д			
1700	1. 280	round and		approx.	7:00 170 ⁰ to 18	00			
A798 A799	A-380 A-380	flat flat, circular		12:00 3:00	6100 9:00	W-W			2 parallel chamber marks. Rimless, breech face striae
A802	A-380	fist, circular	none	3:00	8:00				absent, Brass Case.
A805	A-380		remarkable						
A813 A814	A 38	round round flat with extra		opposit opposit					
A815	A-380	circle		+	+				
A818	V-380	shallow, two concentric circles		opposit	ė				
A820	Comparisons								
A823 A827 A830	A-380 A-380 A-380	round, flat flat, round cylindrical		180 ⁰ 12:00 12:00	apart 6:00 6:00	W-W			Two parallel chamber marking
A831 A833	A-380 A-380 A-380	circular circular			y opposite			one	Brass, centerfire, 2 promine parallel linea markings.
A835 A837	A≁380 A−380	round flat		180 ⁰ 12:00	apart 6:00	W-W		one	Rimless, straight brass case Ejection marks left by extra groove.
^O A838	A 380	shallow	180°	apart					No swelling noted, slight
		distinct concentric circles							blowback.
A839 A842	A-380 A-380	hemisphorical hemis, flat		180 ⁰ 12:00	apart 6:00	W-W			Slide marks 12:00
A847	٨-380	flattened cir-		3:00	9:00	w-w			
		cular, smaller circular depres ion in center i							
A852	A~180	noted round		180 ⁰	apart	W-W			
A853 A854	A-380 A-380	round, fint		3:00 opposite	9:00 W-W	W-W			
A855 A856	A 380 9mm	round, flat	an a	12:00	6:00				No information available.
A860 A861 A866	л~380 л~380 л~380	flat unuaual round		12:00 3:00	6:00 9:00	W-W dia.,372"			
A868	A-380	round	none distinct	opposite	9.00	length.670" W-W			Some fine, light chambering
									marks, two parallel deep cut with shallow dent between.
A869 A873	A-380 380	flat		180 ⁰	apart				
A874	A-380	eircular, flat	override marks on	180 ⁰	apart	₩→₩			
ABBO	A~380	round, slightly	either side	1809	apart				Longitudinal striations.
A883	A-380	flattened circular		6:00	12:00	an an an Artis An Anna Anna Anna			
A884	Y-380	distinctive flat nose		2:00	8:00				
A888 A891	л-380 л-380	circular circular, not very deep		opposit 3:00	7:00				and a start of the second s New York Second
	5	eest work							

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.AB CODE	AUTOMATIC 350	FIRING PIN MARKS	BREECHFACE MANKS	EXTRACTOR MARKS	EJECTOR MARKS	BRAND	CASE DIMENSIONS inches	CANNELURES NATED	OTHER NOTES
892	A-380 A-380	circular, flat		180 ⁰ opposit	te 	W-W			Two parallel slide marks.
895	A-380	round		180 ⁰ opposit	Le				
897 899	A-380 A-380	flat cylindrical, flat		180 ⁰ opposit 180 ⁰ opposit 180 ⁰ apart	te 	W-W	neck .372" rim .371"	one	Three indentations.
902 903	A-380 A-380			2:00	9:00		length .071"	¢.	"Ejection" direct on extractor
904 908	A-380 A-380	circular round		3:00 3:00	9:00 10:00	W-W			side of case.
915 920 923	A-380 A-380 A-380	round, ir-		12:00 180 ⁰ 4		Winchester			
005	1.200	reglar, flat- tened							
.925 .927 .935 .938	A-380 A-380 A-380 A-380	circular round round with		12:00 180 ⁰ apar	6:00	W-W W-W			Twin lines .105" spart. Center fire. Suitable for comparison.
		flat circular double ring				w-w			
942	A-380	large, round, flat		12:00	6:00				
\944 \958	A-380 A-380	round found, eccent- ric to right		3:00 3:00	9;00 9;00	W-W W-W			
\961 \962 \969	A-380 A-380	round		3;00	9:00	W-W W-W			Indeptation and marks on case,
970	A-380			top of breech face	left side of breech face				
974	A-380	round, flat		noted	noted	W-W			
975	A-380	round with eccentric	5	9:00	3:00	W-W			Center fire.
978 979	A-380 A-380	indentation circular		180 ⁰ apart	1	W-W		e de la composition de la composition de l	Expanded casing,
980	A-380	large flat faced cy- linder	none	directly	opposite	W-W			
984	A-380	flat circular of center	faint	12:00 .110" wide	6:00 .05" long	W-W			Extraction marks along entire case wall.
985 989	A-380	reported by thi		8:00	3:00			ti	
994	A-380	flat, two circle im- pression	very minute	4:00	9:00				
995 998	A-380 A-380	flat circular	noted	noted 3:00	noted 9:00	W-W			
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