STATE OF CONNECTICUT

DEPARTMENT OF EMERGENCY SERVICES AND PUBLIC PROTECTION DIVISION OF SCIENTIFIC SERVICES



Guy M. Vallaro, Ph.D. Director

FORENSIC BIOLOGY REPORT

LABORATORY CASE #: DSS-20-002258

SUBMITTING AGENCY: Trumbull Police Department

158 Edison Road Trumbull, CT 06611

AGENCY CASE #:

2000008424

DATE OF REQUEST:

06/05/2020

DATE OF REPORT:

08/04/2020

EVIDENCE SUBMITTED:

001. #24291 Large bag with "mattress cover"

002. #24292 Large bag with "comforter"

003. #24293 Large bag with "sheet"

EXAMINATION METHOD:

All examinations were conducted macroscopically unless otherwise noted. Serological results reflect the analysis of only the portion of sample tested.

RESULTS OF EXAMINATION:

# 	Description	nsisted of one (1) mar Testing Performed	Result	Conclusion	Disposition
001- 001	Hair-like fibers	Not examined at this time		-	Retained
001	Stains	Screening - Semen	Positive	Acid phosphatase detected	Not collected
		Microscopic - Spermatozoa	Negative	Spermatozoa not identified	
		Immunological - p30 Protein	Negative	Semen not detected	
	Other stains	Screening - Semen	Negative	Acid phosphatase not detected	

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Page 2 of 5

RESULTS OF EXAMINATION CONTINUED:

#	Submission #002 consisted of one (1) comforter. # Description Testing Performed Result Conclusion Disposition					
	1		Kesuit	Conclusion	Disposition	
002-	Hair-like	Not examined at			Retained	
001	fibers	this time			Rotanica	
002-	Stain	Screening -	Positive	Amylase detected	Retained and	
002	150	Amylase		·	a portion to	
		Screening - Semen	Positive	Acid phosphatase detected	DNA	
		Microscopic -	Negative	Spermatozoa not	1	
002		Spermatozoa	_	identified		
		Immunological -	Negative	Semen not		
		p30 Protein		detected		
	Stains	Screening -	Negative	Amylase not	Not collected	
		Amylase		detected		
		Screening - Semen	Positive	Acid phosphatase		
				detected		
		Microscopic -	Negative	Spermatozoa not		
		Spermatozoa		identified		
		Immunological -	Negative	Semen not		
	4 1 11,1 1	p30 Protein		detected		
	Additional	Screening - Semen	Positive	Acid phosphatase		
	portion of some of	NT- C /I		detected		
	these stains	No further				
	mese stains	serological testing				
	Other stains	conducted				
	Other stains	Screening - Semen	Negative	Acid phosphatase	2	
)		not detected		
	-	No further	e e		3	
		serological testing		1		
		conducted				

#	Description	Testing Performed	Result	Conclusion	Disposition
003- 001	Hair-like fibers	Not examined at this time			Retained
003- 002	Stain	Screening - Amylase	Positive	Amylase detected	Retained and a portion to
		Screening - Semen	Positive	Acid phosphatase detected	DNA
		Microscopic - Spermatozoa	Negative	Spermatozoa not identified	
		Immunological - p30 Protein	Negative	Semen not detected	

Page 3 of 5

RESULTS OF EXAMINATION CONTINUED:

#	Description	Testing Performed	Result	Conclusion	Disposition
003- 003	Stain	Screening - Amylase	Positive	Amylase detected	Retained and a portion to
	9 ~	Screening - Semen	Positive	Acid phosphatase detected	DNA
		Microscopic - Spermatozoa	Negative	Spermatozoa not identified	
		Immunological - p30 Protein	Negative	Semen not detected	
003- 004	Stain	Screening - Amylase	Positive	Amylase detected	Retained and a portion to DNA
		Screening - Semen	Positive	Acid phosphatase detected	
		Microscopic - Spermatozoa	Negative	Spermatozoa not identified	
	-	Immunological - p30 Protein	Negative	Semen not detected	
003- 005	Stain	Screening - Amylase	Positive	Amylase detected	Retained and a portion to
	,	Screening - Semen	Positive	Acid phosphatase detected	DNA
		Microscopic - Spermatozoa	Negative	Spermatozoa not identified	
		Immunological - p30 Protein	Negative	Semen not detected	4
003	Additional stain	Screening - Amylase	Negative	Amylase not detected	Not collected
		Screening - Semen	Positive	Acid phosphatase detected	
•		Microscopic - Spermatozoa	Negative	Spermatozoa not identified	,
		Immunological - p30 Protein	Negative	Semen not detected	
	Other stains	Screening - Semen	Negative	Acid phosphatase not detected	-
		No further serological testing conducted			
	Brownish- stain	Screening - Blood Screening - Semen	Negative Negative	Blood not detected Acid phosphatase not detected	

Page 4 of 5

RESULTS OF EXAMINATION CONTINUED:

ADDITIONAL COMMENTS:

- A. Any remaining extracts from the above-tested item(s) are retained at the Laboratory.
- B. Submissions #001, #002 and #003 will be retained at the Laboratory per Public Act No. 15-207.
- C. A known biological sample is requested from the victim for comparison purposes.

APPENDIX:

- A. Amylase is a component of saliva. This test does not determine the origin of the detected amylase.
- B. p30 is a component of semen.

Further analysis upon request

Results apply to the evidence as received by the Division of Scientific Services and relate only to the items tested. This report reflects the test results, conclusions, interpretations, and/or the findings of the analyst as indicated by their signature below.

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Forensic Science Examiner 1

Technical Reviewer Stephanie M. Lopez

Forensic Science Examiner 1

Page 5 of 5

RESULTS OF EXAMINATION CONTINUED:

Forensic Biology Report Glossary of Terms and Concepts

The following supplemental information is to provide our clients with a more comprehensive description of the methods used by our laboratory for the examination/testing of items submitted for forensic testing.

Definitions:

Examined: Examined items are those that have been documented and evaluated to determine their potential for containing body fluid(s) and/or biological material. This evaluation may include visual examination with or without lighting/microscopic aids. Once determined, potential body fluid stain(s)/biological material may be tested and/or collected for further analysis.

<u>Tested</u>: Tested items are those that are subjected to serological testing and/or evaluation for further analysis. Not all items examined, tested and/or collected are necessarily forwarded for further analysis.

Examination Techniques for Detecting Possible Body Fluid Stains:

Visual Examination without using an Alternate Light Source (ALS): Some body fluid stains may be visible under ambient light making it possible to locate them without the use of an ALS.

Visual Examination using an Alternate Light Source: Some body fluid stains are not visible under ambient light but may fluoresce under an ALS. The ALS may aid in locating potential body fluid stains that would not otherwise be visible.

The visual detection of an area of discoloration and/or fluorescence may indicate the presence of a body fluid stain. This area may be subjected to serological testing for specific body fluids and/or forwarded for further analysis.

The absence of areas of discoloration and/or fluorescence may indicate either the absence of body fluid stains or the presence of body fluid stains below the threshold of visual detectability. Since it is not possible to differentiate between these two alternatives, areas void of visible/fluorescent stains may also be subjected to serological testing for specific body fluids and/or forwarded for further analysis.

Serological Tests and Interpretation of Results:

The following serological tests are utilized for the indication of biological materials/fluids:

Blood: Kastle-Meyer (KM); o-Tolidine (OT); RSID™-Blood; HemaTrace®; Takayama Tests

Spermatozoa: Sperm Hy-Liter and Christmas Tree staining/microscopy

Seminal Fluid: Acid Phosphatase (AP); ABAcard® p30 Tests

Saliva: Phadebas (amylase) Test

Urine: RSID™-Urine Test

Fecal Material: Urobilinogen Test

Species: Ouchterlony Double Diffusion Test

Serological test results for the above-listed biological materials/fluids are interpreted as follows:

Positive Result: A positive result from a substance/stain/area tested for the presence of a specific biological component indicates, detects, and/or identifies the presence of the targeted biological component.

Negative Result: A negative result from a substance/stain/area tested for the presence of a specific biological component indicates that either the targeted biological component is not present or is present in a quantity that is below the test's detectability threshold. Based on the testing performed, it is not possible to distinguish between these two alternatives.

Inconclusive Result: A result that cannot be clearly visualized will be considered indeterminate and therefore no conclusion can be drawn. This may be due to the presence of a masking substance or substrate interference.

Failed/Invalid Result: The test failed to perform according to the manufacturer-specified and/or laboratory-validated parameters. No conclusion can be drawn from a failed/invalid test result. Failed/invalid tests should be repeated after the cause of the test failure has been determined and resolved, or an alternate validated method may be employed, if sufficient evidentiary material is available.

<u>Unsuitable for Testing</u>: When it is determined that the condition of an item/sample may have a deleterious effect on a test result and/or may inhibit an analyst from employing proper protocol, an item/sample may be determined to be unsuitable for examination/testing.

