



**Quality Division Use Only**

<b>Quality Tracking #:</b>	2021-IA-02	<b>Classification:</b>	Corrective Action
<b>Non-Conformance Level:</b>	Class II	<b>Section:</b>	Firearms
<b>Date of Discovery:</b>	04/16/21	<b>Date of Incident:</b>	08/28/18

Forensic Case Number	Agency Case Number	Forensic Case Number	Agency Case Number
<b>Shotguns</b>	<b>Shotguns</b>	<b>Rifles</b>	<b>Rifles</b>
2018-12641	036846418	139361508	139361508
2018-15313	066682018	2018-12661	110127818
2019-03760	012133719	2018-13170	114287818
2019-06179	148592518	2018-19373	150372018
2019-00246	164255018	2018-20440	091234599
2019-00405	164673118	2018-18058	145366018
2019-07723	045593719	2018-19973	155673618
2019-08146	053296719	2019-05312	026992719
2017-23188	157759717	2019-07400	038889019
2020-00130	001264020	2019-10052	071098919
2019-19570	0309128V	2019-06421	034526219
2019-16021	125184219	2018-12476	108556718
2020-03650	080290919	2019-13459	102521519
2020-06435	055931620	2019-13754	105526319
2019-19953	163091719	2019-14951	115438519
2020-08626	084389819	2019-17860	143778519
2021-18043	174463820	2019-20680	171652719
2020-00872	146267919	2019-19602	159368119
		2018-07367	061149118
		2020-05576	054949120
		2020-04902	047144220
		2016-13805	090274816
		2020-01369	089234216
		2020-09848	096061020
		2020-05077	048852320
		2020-11551	112736620
		2018-10917	092951218
		2018-08265	069324518
		2020-13795	134221520
		2020-08764	085155620
		2020-08778	072649020
		2020-08779	079370220
		2020-08906	086261720
		2020-17088	164906020



		2019-04987	022883219
		2020-10341	101450820

**Description of Non-conformance:**

During the 2021 Firearms section internal audit it was observed that the trigger pull uncertainty of measurement values for rifles and shotguns were switched on the Firearms Trigger Pull Worksheet and on subsequent reports where rifle and shotgun trigger pull values were reported. The uncertainty value for shotguns was reported as 0.50 and the uncertainty for rifles was reported as 0.56. The correct uncertainty value for shotguns is 0.56, the correct value for rifles is 0.50.

**Additional Information/Follow-Up:**

The uncertainty values for all firearm types were transferred from the Excel-based uncertainty workbooks to the Trigger Pull Gauge Worksheet. The worksheet was used to create auto-text options in both Porter Lee and JusticeTrax LIMS. The auto-text was then incorporated into the firearms reports.

The following table summarizes the finding:

Type of Firearm	Original/Incorrect Uncertainty Value	Corrected Uncertainty Value
Shotguns	0.50	0.56
Rifles	0.56	0.50

The difference between the two uncertainty values (0.56 and 0.50) is 11%, which would have a limited impact on the reported trigger pull value uncertainties. Additionally, once the affected cases were identified, testimony workflows were queried to see if any of the affected cases had an associated testimony, and none did. Therefore, risk to the technical record, reported results, and investigations was determined to be low.

Trigger pull values are quantitative, and the Firearms section has chosen to report trigger pull measurement uncertainty values even though there are currently no statutes in State or Federal law associated with trigger pull values.

**Summary of Root Cause Analysis:**

Note: Incidents are documented for tracking purposes and trend analysis. Root Cause Analysis is not required for incidents.

N/A



**Actions Taken:**

The section supervisor was notified of the nonconformance on 04/16/2021 and immediately communicated this information to all Firearms Examiners. She also instructed staff to not perform trigger pull measurement or issue reports bearing trigger pull values for rifles and shotguns until the issue was resolved.

Section management researched Porter Lee and JusticeTrax LIMS to determine cases where a report was issued that listed trigger pull values of rifles and/or shotguns. They identified 18 reports involving shotguns (including two reprint reports) and 36 reports involving rifles (33 cases were involved, but two of the cases had multiple affected reports). One of the cases, HFSC forensic case number 2019-03760, had a report that included trigger pull results for both a shotgun and rifle (it is listed under shotguns in the Forensic Case Number table).

The worksheet with the incorrect values was issued on 01/17/2020. The uncertainty values on the Firearms Trigger Pull Worksheet for shotguns and rifles were corrected on 04/20/2021. Reports issued after 01/17/2020 and prior to 04/20/2021 overestimated the uncertainty of measurement for rifles, which was determined not to present a risk to the technical record; therefore, those reports were not amended.

Reports issued after 01/17/2020 and prior to 04/20/2021 underestimated the uncertainty of measurement for shotguns, which was determined to present a minor risk to the technical record; therefore, these reports were amended.

An exception was made for HFSC forensic case numbers 2019-03760, 2018-10917 and 2018-08265. For case 2019-03760, the Firearms examination included a rifle and a shotgun, and the report included uncertainty values for both firearms. When the shotgun values were corrected the rifle values were also corrected on the amended report. For cases 2018-10917 and 2018-08265 (which is a reprint report related to 2018-10917 and essentially contained identical information), both reports required amending for minor corrections not related to this nonconformance. However, since the reports included rifle measurement uncertainties and were being amended, the Firearms section took the opportunity to correct the measurement uncertainty values.

Additionally, one amended firearms report (2019-06179) and two amended reprint reports (2019-00246 and 2019-00405) had to be amended a second time to correct minor grammatical errors.



Section Manager: Donna Eudaley

Date: 12/28/21

Division Director: Amy Castillo

Date: 12/29/21

Incidents or Corrective Actions that involve the Biology/DNA section are reviewed by the Technical Leader and CODIS Administrator.

Technical Leader: N/A

Date: N/A

CODIS Administrator: N/A

Date: N/A

Quality Director: Erika Ziemak

Date Closed: 12/30/21