Houston Forensic Science Center

INTEROFFICE MEMO

To: Erika Ziemak, Quality Director

From: Callan Hundl, Quality Specialist
Maddisen Neuman, Quality/Research Associate

Callan Hundl Digitally signed by Callan Hundl Date: 2022.05.09 12:30:46 -05'00'

Maddisen Neuman Digitally signed by Maddisen Neuman Date: 2022.05.09 12:32:49 -05'00'

Date: May 9, 2022

Re: 2022 Quarter I Blind QC Report

The Houston Forensic Science Center facilitates a blind quality control (QC) program to ensure continuous quality improvement, test the company's entire quality management system, strengthen the proficiency testing program, add confidence to staff testimony, and evaluate the competence and performance of staff. All of this in return confirms to HFSC's stakeholders that we provide accurate and reliable results in normal casework.

The submission goal for Forensic Multimedia was changed from two cases per month to one case per month. This change is due, in part, to the departure of multiple Forensic Multimedia analysts from HFSC who were authorized to perform audio/video analysis as well as limitations in the blind quality control request type options. Instead of submitting audio/video cases, blind QCs will focus on digital evidence at this time. The Quality Division will explore other options for audio/video analysis for the blind QC program. The change in submissions is reflected in the "Dropped" column below.

Last quarter, one Seized Drug blind QC was being reviewed by the Quality Division for satisfactory results. The details of the case, the results of which were ultimately determined to be satisfactory, are explained in a memo titled "Seized Drugs BQC 2021-34128 memo". The memo is attached to this report as well as uploaded to Qualtrax.

The table below shows the number of blind QC cases that have been created by the HFSC's Quality Division, dropped into the system like normal casework, and completed by the analysts as blind tests between January 1 and March 31, 2022. During the first quarter of 2022, all but 1 Forensic Multimedia and 11 Latent Print Processing cases were completed without analysts knowing they were working a blind case. The 11 Latent Print Processing blind QCs were completed by a processor trainee as supervised casework.

Section	Dropped	Completed	Satisfactory	No. Completed Blind
Toxicology (BAC/Drugs)	48	49/9	49/9	49/9
Seized Drugs	30	24	24	24
Biology (screening/DNA)	12	11/8	11/8	11/8
Firearms	3	1	1	1
Firearms Blind Verification	3	4	4	n/a
Latent Print Processing	3	13	13	2
Latent Print Comparison	0	9	9	9
Latent Print Comparison Blind Verification	0	0	n/a	n/a
Digital Forensics	3	0	n/a	n/a
Forensic Multimedia	1	2	2	1

The tables below depict the names or initials of staff members who have participated in blind QCs in this quarter and may include the reagents and software used in the cases.

Toxicology

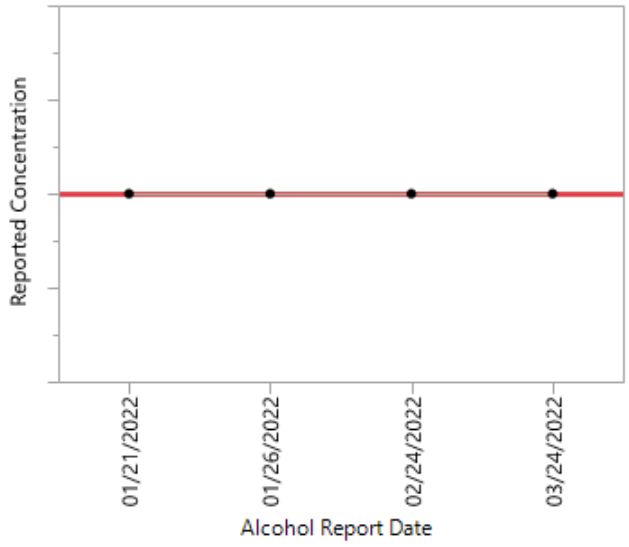
Alcohol Batches with Blind QCs	Headspace Used	Hamilton Pipette Used
ALC_20211221_KMY	2	1742
ALC_20211222_JR	2	1742
ALC_20220106_HM	2	1742
ALC_20220106_JP	3	7903
ALC_20220110_MR	2	1742
ALC_20220111_JR	3	7903
ALC_20220112_EC	2	1742
ALC_20220118_MR	2	1742
ALC_20220120_KMY	2	1742
ALC_20220124_MR	3	7903
ALC_20220126_JR	3	7903
ALC_20220127_JP	2	1742
ALC_20220201_ASG	2	1742
ALC_20220201_VC	3	7903
ALC_20220202_AAJ	3	1742
ALC_20220202_DM	2	7903
ALC_20220207_EP	3	1742
ALC_20220208_VC	3	7903
ALC_20220209_JP	2	7903

ALC_20220217_HM	3	7903
ALC_20220221_EP	2	7903
ALC_20220221_MR	2	1742
ALC_20220228_KMY	2	1742
ALC_20220301_ASG	2	1742
ALC_20220303_JR	2	1742
ALC_20220304_AAJ	2	7903
ALC_20220307_MR	2	7903
ALC_20220309_DM	2	7903
ALC_20220310_HM	2	1742
ALC_20220315_ASG	2	7903
ALC_20220315_EP	2	7903
ALC_20220317_HM	2	7903
ALC_20220321_MR	2	7903
ALC_20220324_HM	2	1742

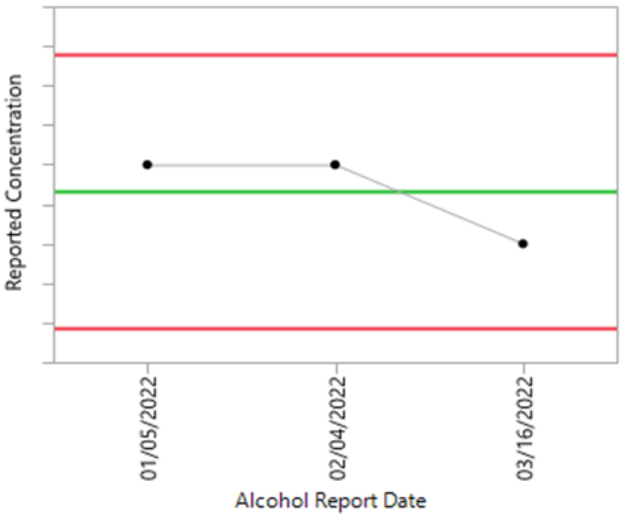
Note: Some alcohol analysis batches may have contained more than one blind QC sample.

Control Charts for Blood Alcohol Analysis

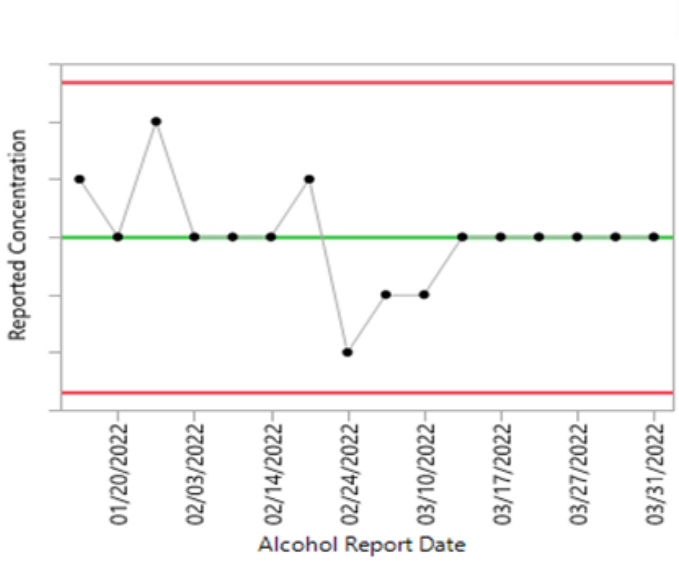
Control Chart Target Concentration from Vendor = 0.0000
Leavey Jennings of Reported Concentration
The Y axis is in increments of 0.25



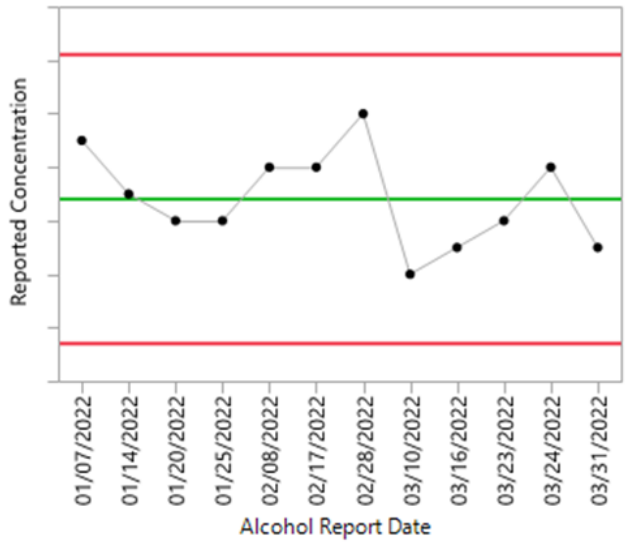
Control Chart Target Concentration from Vendor = A
Leavey Jennings of Reported Concentration
The Y axis is in increments of 0.0005



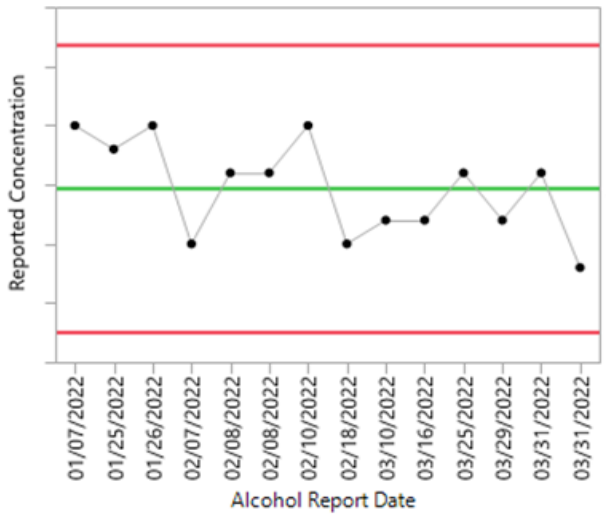
Control Chart Target Concentration from Vendor = B
Leavey Jennings of Reported Concentration
The Y axis is in increments of 0.001



Control Chart Target Concentration from Vendor = C
Leavey Jennings of Reported Concentration
The Y axis is in increments of 0.002



Control Chart Target Concentration from Vendor = D
Leavey Jennings of Reported Concentration
The Y axis is in increments of 0.0025



ELISA Batches with Blind QCs
EIA_20210903B_CLR
EIA_20210921B_JP
EIA_20210929B_FB
EIA_20211004B_KMY
EIA_20211005B_EP
EIA_20211020B_DM
EIA_20211105B_KMY
EIA_20211207B_EP
EIA_20211209B_FB

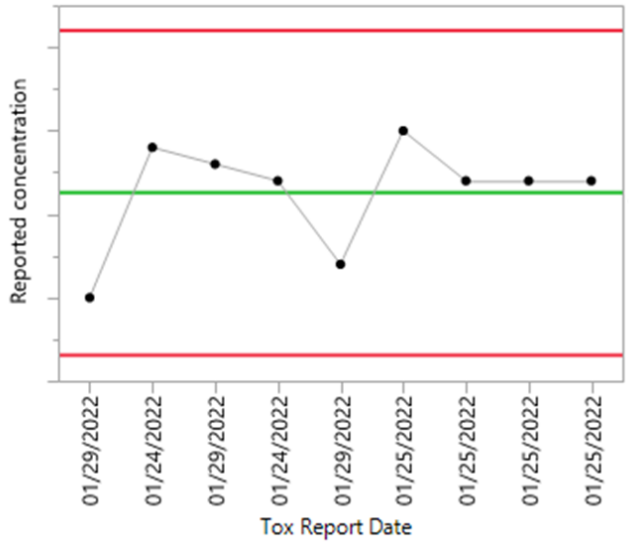
Drug Toxicology

Analyst	Number of Blinds Completed
Ashley Johnson	4
Dana Mike	1
Kayla Yang	1
Valerie Coronado	3

Some toxicology blind QC samples contain controlled drugs. If the alcohol concentration is below 0.1% the case will move on to drug screening, and if positive at screening will move on to drug confirmation. Blind QCs that were screened for drugs using the immunoassay ELISA technique are included in the ELISA batches table listed above. The analysts that completed drug confirmation on a blind QC case are listed in the chart above.

Control Chart for Drug Confirmation

Control Chart Target Concentration from Vendor = Drug A
Leavey Jennings of Reported Concentration
The Y axis is in increments of 0.25



Seized Drugs

Analyst	Number of Blinds Completed
Alaina Anderson	3
Angelica Noyola	5
Cloressa Guidry	1
Jazmyne Burren	4
Mariam Kane	3
Michael Salazar	3
Mona Colca	1
Patrick Tynan	4

Biology – Screening

Analyst	Number of Blinds Completed
Anha Pham	2
Caitlyn Fisher	2
Kelly Freeman	2
Daniela Anane-Bediakoh	1
Rochelle Austen	1
Tania Guerra	3

Biology - Technician

Analyst	Number of Blinds Completed
S. Adam Vinson	6
Aja Moss	1
Daniela Anane-Bediakoh	3
Hannah Wines	2
Marcel Weigel	1
Melissa Abreu	1
Tania Guerra	4

Note: More than one technician is associated with each blind QC completed during this quarter.

Biology – DNA Analyst

Analyst	Number of Blinds Completed
S. Adam Vinson	3
Aja Moss	1
Keegan Breaux	1
Sabrina Hagood	2
Zoraya Reyes	1

Note: DNA cases would have previously been reported as completed for screening. Also, if an HFSC staff member's DNA is used to create a blind sample, the DNA analyst is expected to discover during report writing that the DNA belongs to staff which ensures the profile is not uploaded into CODIS and proper usage of the elimination database. In these instances, the Quality Division considers the cases complete when the DNA analysts report that the sample(s) matches an elimination database sample and is

confirmed to be a blind. These cases are deemed as completed blind because all work up until that point was completed without the screener, technician, and analyst knowing that it was a blind case.

Firearms

Primary Examiner	Second Examiner	Comparison	Microscopes	Primary Examiner Result	Second Examiner Result
Jill Dupre	Chandler Bassett	1	3, 2	ID	ID
		2	3, 2	ID	ID
		3	3, 2	ID	ID
		4	3, 2	ID	ID
		5	3, 2	ID	ID
		6	3, 2	ID	ID
		7	3, 2	ID	ID
		8	3, 2	ID	ID
		9	3, 2	ID	ID
		10	3, 2	ID	ID
		11	3, 2	ID	ID
		12	3, 2	ID	ID

Conclusion abbreviations: ID = Identification, Elim = Elimination, Inc = Inconclusive, Un = Unsuitable, Insuf = Insufficient

Firearms Blind Verification

Primary Examiner	Second Examiner	Forensic Case Number	Agency Case Number
Chandler Bassett	Melissa Nally	2021-21780	033082121
Chandler Bassett	Kasi Kirksey	2017-02431	016054617
Ryan Hookano	Kim Downs	2021-31956	132172721
Kaitlyn Bongiorno	Jill Dupre	2021-32184	134471621

Note: For Firearms blind verifications, the second examiner is aware they are conducting the verification; however, the primary examiner's conclusions are masked. Therefore, the second examiner is making conclusions separately and independently from the primary examiner's conclusions. All blind verifications were conducted on actual casework, blind QCs, or proficiency tests.

Latent Print Processing

Analyst	Sequential Processes
Adam Whitman	Vis-ALS/Laser/White Cyanoacrylate R6G
Laurissa Pilkington	Vis-ALS/Laser/White Cyanoacrylate R6G
Carlos Sorto	Vis-ALS/Laser/White Cyanoacrylate R6G R6G
Carlos Sorto	Vis-ALS/Laser/White

	Cyanoacrylate R6G
Carlos Sorto	Vis-ALS/Laser/White Cyanoacrylate R6G
Carlos Sorto	Vis-ALS/Laser/White Cyanoacrylate R6G
Carlos Sorto	Vis-ALS/Laser/White Cyanoacrylate R6G
Carlos Sorto	Vis-ALS/Laser/White Cyanoacrylate R6G Powder
Carlos Sorto	Vis-ALS/Laser/White Cyanoacrylate R6G
Carlos Sorto	Vis-ALS/Laser/White Cyanoacrylate R6G
Carlos Sorto	Vis-ALS/Laser/White Cyanoacrylate R6G Powder
Carlos Sorto	Vis-ALS/Laser/White Cyanoacrylate R6G R6G
Carlos Sorto	Vis-ALS/Laser/White Cyanoacrylate IND Ninhydrin R6G

Latent Print Comparison

Examiner	Verifier	Number of Blinds Completed
Starla Wyatt	Shanaihi Patel	1
Rebecca Green	Shanaihi Patel	1
Vickie Paiz	Shanaihi Patel	1
Rebecca Green	Vickie Paiz	1
Starla Wyatt	Vickie Paiz	1
Julian Harley	Stacie Gardner	1
Shanaihi Patel	Rebecca Green	1
Tracy Lipskoch	Huyen Vu	1
Huyen Vu	Vickie Paiz	1

Forensic Multimedia

Analyst	Forensic Software/ Hardware
Spencer Ledesma	Forensic Workstation DME14 Quick Hash, 2.6.9.2 MediaInfo, 21.03 VLC media player, 3.0.16 Amped FIVE, Build date 20210415, Revision 20532 Microsoft Photos, 2021.21090.10008.0
Spencer Ledesma	Forensic Workstation DME14 Quick Hash, 2.6.9.2 MediaInfo, 21.03 VLC media player, 3.0.16 Amped FIVE, Build date 2030132291, Revision 23195 Adobe Acrobat Pro DC, 2021.011.20039

Houston Forensic Science Center

500 Jefferson St., 13th floor Houston, TX 77002

To: Peter Stout, CEO; Amy Castillo, COO

From: Erika Ziemak, Quality Division Erika Ziemak Digitally signed by Erika Ziemak Date: 2022.02.21 09:54:46 -06'00'

Cc: James Miller, Seized Drugs Manager James T. Miller 02/17/2022

Date: February 17, 2022

Re: Seized Drugs Blind Quality Control Case 2021-34128

A seized drug blind quality control sample, 2021-34128, was correctly reported by the section as "no controlled substances identified". The sample consisted of a pharmaceutical capsule that contained benzonatate, a prescription drug that is not listed as a controlled substance under state or federal law. This sample was submitted to the section and became a challenge sample for the following reasons:

1. The appearance of the capsule is very similar to over-the-counter health supplements, such as vitamin D3 and fish oil capsules.
2. The inscription on the capsule is very subtle and faint, making it hard to detect with the naked eye.
3. The pharmaceutical drug benzonatate is an anti-tussive (cough medication) and is not commonly received by the laboratory.
4. The Quality Division did not pre-characterize the benzonatate prior to submission to determine if the analysis would be compatible with the analytical instrumentation available in the seized drug section.

While benzonatate is not a controlled substance, it is a prescription drug, and in the state of Texas, the illegal possession of a prescription drug can be prosecuted under the misdemeanor charge of "possession of a dangerous drug". While the analyst followed the sectional procedures and correctly reported that no controlled substances were identified, the blind sample addressed known limitations within the seized drug section's analytical process. The HFSC seized drug section attempts to identify dangerous drugs; however, it acknowledges that it is not possible for them to always do so. In this instance, per the analyst's case notes and subsequent interview, the analyst did not observe the capsule inscription, and the drug itself is a large molecule and based on the analysis results, is not heat-stable in the gas chromatography mass spectrometer (GC/MS) injection inlet. When the data from the GC/MS analysis was reviewed, it was determined that breakdown products were present and could not be used for identification purposes.