

DECLARATION OF GREGORY ZAVATSKY

I have reviewed the chain of custody forms, and the SOP(Standard Operating Procedure) used at AFIP(Armed Forces Institute of Pathology) that were used during the testing of Todd Sommer's body fluids,tissues,hair,and pill analyses in the following years 2003,2006,2007. This newly discovered evidence was provided to the defense on January 22, 2007. I will now express my scientific opinion based on my review of the documents listed above.

Qualifications:

I am currently self-employed as a Forensic and Clinical Toxicology Consultant, and also function as the graveyard Supervisor of Toxicology at Quest Diagnostics in West Hills, California. Prior to consulting I was the Forensic Toxicology Supervisor at Forensic Toxicology Associates from December 1999 to May 2005,where I supervised, testified (analytical and interpretive testimony), in DUI, and other drug cases, and performed forensic toxicological analyses. My experience in forensic and clinical toxicology encompasses 28 years divided equally between forensic and clinical toxicology.

My education includes a B.A.Chemistry degree from Indiana University at South Bend, Indiana. Currently I am working on a Forensic Toxicology masters degree online from the University of Florida, Gainesville, Florida.

During my training as a toxicologist, I have continued to read widely in the scientific and professional toxicology literature, and attend forensic toxicology training workshops in the areas of blood alcohol, and other drugs and their relationship on how they affect human performance and behavior in driving an automobile, post-mortem toxicology, hair testing including arsenic, and clinical toxicology.

My training and experience with arsenic includes testing of body fluids for arsenic at Quest Diagnostics, and Specialty Laboratories, reviewing numerous peer reviewed articles on arsenic, and completing three course studies on arsenic through the masters program at the University of Florida.

I have had training and experience on the proper documentation of chain of custody forms, and how to review them. I have reviewed more than 10,000 chains of custody

forms while working in NIDA (National Institute on Drug Abuse, now called SAMHSA) forensic laboratories at Quest Diagnostics, and Pacific Toxicology Laboratories.

I hold memberships in the following organizations: Society of Forensic Toxicologists (SOFT), the California Association of Toxicologists (CAT), and the International Association of Forensic Toxicologists (TIAFT).

I hold three licenses from the state of California: Forensic Alcohol Supervisor, Forensic Alcohol Analyst, and California Toxicologist Scientist License #MTF157. Also I am Board Certified as a Toxicological Chemist by NRCC (National Registry of Certified Chemists).

On the basis of my education, training, and experience, I am therefore familiar with chain of custody forms, forensic and clinical toxicology. I have been qualified as an expert witness in regard to forensic alcohol analyses and interpretation, and other drugs of abuse in urine, over 80 times in Municipal and Superior Courts in Los Angeles and San Francisco Counties. Have testified in DMV (Department of Motor Vehicle per se hearings).

Also have been trained and have performed case reviews involving alcohol and other drugs in driving impairment cases, drugs in the workplace, custody disputes, and sexual abuse cases involving drugs. Also I have been involved with one arsenic case review.

Materials Reviewed and Examined:

This review and report is based, in part, on my education, training, and experience in the field of forensic toxicology. In addition, I have reviewed and consulted, and relied upon certain materials prepared or furnished by other individuals and sources as noted below:

1. AFIP SOP Custody procedure pages 5591-5592
2. Chain of Custody forms from AFIP pages 5596-5681
3. Wikipedia, the free encyclopedia

What is Chain of Custody:

Chain of Custody is a legal term that refers to the handling of evidence and its integrity. Chain of Custody also refers to the documentation or paper trail showing the collection, custody, control, transfer, analysis, and the disposition of physical or electronic evidence.

The Chain of Custody requires that from the moment the evidence is collected, every transfer of evidence from person to person be documented and that it be provable that nobody else could have accessed that evidence.

What is an Internal Chain of Custody:

The Laboratory Internal Chain of Custody is documentation that records the movement of samples and sample aliquots during analysis. Within the laboratory, the laboratory internal chain of custody shall be a continuous record of individuals in possession of the samples or sample aliquots. When the samples are not in an individual's possession it should be documented that the sample or aliquot is in a controlled zone such as a refrigerator, or freezer that is locked, and only certain individuals have access, which is documented. The entry into the laboratory internal chain of custody should be completed at the time that any change of possession occurs. The laboratory internal chain of custody must contain the name of the individual, date of transfer, and the purpose of the transfer of possession. The individual's name/signature should appear in the documentation at least once.

What is an SOP:

An SOP stands for Standard Operating Procedure. An SOP that is written by a laboratory needs to follow as written by any person who performs the procedure or test. The SOP spells out step by step instructions on how to perform the procedure. There can be no deviation from the SOP. In this way all testing personnel handle the samples in the same way, and this ensures integrity to all subsequent samples that are tested in the laboratory.

Breaks and missing Chain of Custody forms by AFIP laboratory:

According to the AFIP SOP Custody, it states on pages 5591 under Section B that a case shall be considered under chain of custody whenever documentation received with the case indicates that the specimens have been under strict custody and the case can be accounted for from time of collection to time of receipt within the Division. Various forms on documentation may be used to record the transit storage of the case.

Also under section G of the SOP states- Sample aliquots for analysis will be dispensed by the evidence custodian and signed for by the laboratory Manager or technician performing the assay. Sample aliquots dispensed for additional testing will likewise be signed for. The evidence custodian will return custody of specimens and aliquots until signed for by the laboratory personnel performing the specific procedure for analysis. Sample aliquots will be secured until signed for.

And next note Section K. Section K states- all chain of custody cases will be reviewed by the Lab Manager, Division Chief, and the Chairman or his/her designee.

The following is a list of breaks in chain of custody and missing chains:

1) On page 5597, the chain of custody is not recorded properly documented for Blood, Urine, Liver, and Kidney.

The chain is missing the courier's signature under Released by to Rivera. The following line should be released by secured storage, received by Jose Centeno, and the last line should be released by courier, received by Simina Lal. There are 3 missing parts to this chain of custody.

2) On page 5601. The analyst who performed an Hg (Mercury) analysis on Sommers liver and kidney is missing an internal chain of custody documenting the removal of the liver and kidney from secured storage, the analyst is Rivera on 4/09/03.

3) On page 5604, the analyst Rivera who performed an arsenic analysis by AA on Sommers Blood and Urine is missing an internal chain of custody form.

4) On page 5639, on 4/22/03, Todor Todorov, the analyst who performed a metal analysis of Cadmium, Lead, Aluminum, and Tl, on Sommers liver and kidney is missing an internal chain of custody form.

5) On page 5615, on 6/20/06, for arsenic speciation, there is no internal chain documenting the removal of liver and kidney from Sommers for Homogenization. The analysts were Todor and Centeno.

6) On page 5616, on 6/22/06, for arsenic speciation is missing an internal chain of custody form performed by Todor Todorov for homogenization.

7) On page 5619, the chain of custody is not properly documented. It should so be recorded as: Secured Storage, and Received by Jose Centeno.

8) On page 5627, the chain of custody is not documented correctly, missing signatures.

9) On page 5628, for arsenic testing using Y as internal standard performed by Simina Lal, there are no internal chains of custody for Sommers brain, muscle, kidney, liver, bile, gastric fluid, or blood.

10) On page 5631, the chain of custody is not documented properly.

Specifically on Aug 1, 03 when the custody of the brain and muscle is transferred from Williams to Rivera, it is not stored in a secured storage. The following entry is on Aug 25, 03 by Jose Centeno who is not properly recording or documenting the chain of custody.

11) On page 5632, for arsenic analysis on Sommers brain and muscle on 8/4/03 performed by analyst Simina Lal, has no internal chain of custody.

12) On page 5633 and 5634, for arsenic analysis again on Sommers brain and muscle on 8-27-03, the internal chain is broken. The tissues were removed from storage on 8-26-03, and tested on 8-27-03 but there are no entries on the internal chain that the tissues were returned to the secured storage. And on 8-27-06 when the analysis of brain and muscle was performed, there were no signatures that samples were removed for testing from storage. What happened to the tissues from 8-26-03 to 8-27-03? (A 24 hour period) This is a major break in the internal chain of custody.

13) On page 5637, the chain of custody for gastric and bile in Sommers is missing an entry on 6-17-03. Centeno received custody, but did not record that he placed the samples in secured storage. Did he keep the samples from 6/17/03 to 6/19/03? The next entry is 6/19/03, so it looks like he kept the samples himself for 3 days. The cases on page 5638 are not chain of custodies. Another major break in the internal chain of custody.

14) On page 5639, a digestion was performed for arsenic on Sommers bile and gastric by Todor the analyst. There is no internal chain of custody documenting the removal of the samples from secured storage.

15) On page 5678, on the internal chain of custody form, Simina Lal released hair samples of Todd for arsenic analysis on 8/08/03 at 13:30, but the hair analysis did not occur until 8/11/03, 3 days later. There is no indication on the internal chain of custody that the prepared samples were re-stored under secure storage, and removed on 8/11/03 when testing began.

16) On page 5665, the internal chain of custody is not complete. There is no indication who removed the processed samples by Simina Lal on 9/23/06 before the digestion was performed by Todor on 9/23/06.

Conclusions and Expert Scientific Opinions:

My conclusions are summarized as follows:

- A) The AFIP SOP chain of Custody is not followed as written.
- B) Most internal chain of custodies is missing and the few that are present are not recorded properly and are incomplete.
- C) The SOP states that an evidence custodian will process the stored samples and the analyst performing the test will sign for aliquots. This is not DONE as written.

D) The SOP states that all chain of custodies will be reviewed by the manager and there is no documentation that indicates that this occurred. Dr. Centeno's signature is not found on any chain of custody form for review.

E) Aliquots are not secured after they have been removed when testing does not occur on the same day.

F) The chain of custody forms have been broken more than 16 times and the tests that were performed on Todd Sommers body fluids, tissues, hair and pills are not forensically defensible.

G) Tests that are performed as splits and sent to other laboratories for re-testing, when the original laboratory has had breaks in the chain of custody can be questioned forensically also.

In my scientific opinion based on a reasonable degree of scientific certainty based on the facts that the AFIP SOP was not followed as written, and the chain of custody forms from the AFIP laboratory have been broken over 16 times that all of the tests performed on Todd Sommer's blood, urine, bile, gastric, brain, muscle, kidney, liver, pills, and hair are not forensically defensible to be used in a court of law.

I declare, under penalty of perjury, under the laws of the State of California, that this report is true and correct.

Gregory Zavatsky
Forensic and Clinical Toxicologist

Date:
