

1 DISTRICT COURT, ARAPAHOE COUNTY, COLORADO

2 Case No. 11-CR-1584, DIVISION 21

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4 REPORTER'S TRANSCRIPT

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6 PEOPLE OF THE STATE OF COLORADO,

7 PLAINTIFF,

8 v.

9 BAIKARA NAIM AMINI,

10 DEFENDANT.

11 -----

12 The Trial in this matter commenced on Tuesday, December
13 10, 2013, before the HONORABLE DONALD MARSHALL, Senior Judge
14 of the District Court.

15 APPEARANCES:

16 FOR THE PEOPLE:

ELIZABETH OLDHAM,
Deputy District Attorney

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18 FOR THE DEFENDANT:

PAUL GRANT,
Attorney at Law

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1 (The following is the testimony of Mary Jo McCawley.)

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3 MS. OLDHAM: People call Ms. Mary Jo McCawley.

4 MARY JO MCCAWLEY,

5 having been duly sworn the witness was examined and

6 testified as follows:

7 THE COURT: All right. Please be seated. Thank
8 you.

9 DIRECT EXAMINATION

10 BY MS. OLDHAM:

11 Q If you could tell us your name and spell your
12 name.

13 A My name is Mary Jo McCawley, M-C-C-A-W-L-E-Y.

14 Q What do you do for a living?

15 A I'm a forensic chemist for the city of Aurora
16 assigned to the Aurora Police Department Crime Laboratory.

17 Q What are your duties as a forensic chemist?

18 A Primarily it's to analyze evidence that is
19 suspected of containing a controlled substance. Second to
20 that I perform blood alcohol analysis.

21 Q How long have you been a forensic chemist?

22 A I've been doing that for over 22 years now.

23 Q Tell us your training to be a forensic chemist.

24 A I have a bachelor of science degree in chemistry,
25 biology. I've also worked at various law enforcement

1 agencies such as the Chicago Police Department, the Nebraska
2 State Patrol Criminalistics Laboratory in Lincoln, Nebraska;
3 the Sedgwick County Regional Forensic Science Center in
4 Wichita, Kansas, and then out here in the Aurora Police
5 Department and I've received on-the-job training at each of
6 those locations. In addition to attending various trainings
7 and informational meetings put on by professional vendors
8 such as Verian or Agilent. They're the manufacturers of
9 some of the equipment we've used, but I've also attended
10 training seminars put on by the Drug Enforcement
11 Administration, by the FBI and then by professional
12 organizations such as the American Academy of Forensic
13 Scientists, the Midwestern Association of Forensic
14 Scientists, and the Southwestern Association of Forensic
15 Scientists.

16 Q Have you analyzed substances to determine whether
17 it is a narcotic?

18 A Yes, I have.

19 Q About how many times?

20 A I've probably performed over a hundred thousand
21 analysis, individual analysis over 25,000 different samples.

22 Q Have you analyzed substances to determine whether
23 they're cocaine?

24 A Yes, I have.

25 Q About how many times?

1 A I would say probably in the neighbored of 5,000
2 different items.

3 Q How do you analyze a substance to determine if
4 it's cocaine?

5 A Actually, we do a generic screening. I do a
6 series of five to seven color tests. The color tests are,
7 depending on the results of the color test they can be
8 indicative of a specific compound. I then also perform two
9 crystal tests, where I see if a certain crystal formation is
10 created with a reagent using a microscope and based on those
11 results I can then have a preliminary idea of what's present
12 in the sample if there's a controlled substance present.
13 For confirmation I have one of two methods that I can do. I
14 can either use fourier transform infrared spectroscopy or
15 FTIR.

16 MR. GRANT: Your Honor, I believe this would be an
17 appropriate explanation of the procedures followed, but
18 I don't think it's necessary for the qualifications.

19 THE COURT: Are you -- I'm assuming that
20 Ms. Oldham is going to offer Ms. McCawley as an expert.
21 Are you stipulating that she's an expert in the field?

22 MR. GRANT: No, and I think if her foundation is
23 established we can then have that motion that she can
24 testify about the details of how he approaches these
25 analysis.

1 THE COURT: Your objection's overruled. You may
2 continue.

3 A The other method I can use for confirmation is
4 called gas chromatography mass spectroscopy. GC mass spec
5 or mass spec for short.

6 Q (By Ms. Oldham) Have you testified as an
7 expert witness in forensic chemistry before?

8 A Yes I have.

9 Q About how many times?

10 A Over 150 times.

11 MS. OLDHAM: People move to declare Ms. McCawley
12 as an expert in forensic chemistry.

13 THE COURT: Any voir dire or objection?

14 MR. GRANT: I don't believe an adequate foundation
15 has been lodged and established.

16 THE COURT: Objection's overruled. Ms. McCawley
17 is admitted as an expert in forensic chemistry.

18 MS. OLDHAM: Your Honor, may I approach with
19 People's Exhibit Number 1?

20 THE COURT: You may.

21 Q (By Ms. Oldham) I'm handing you People's
22 Exhibit Number 1. Do you recognize this?

23 A Yes, I do.

24 Q How do you recognize it?

25 A It's got my markings on the tape that has been

1 used for sealing this evidence.

2 Q And is that on the blue tape?

3 A Yes, it is.

4 Q How did this come into your possession?

5 A A lab request was submitted to the laboratory and
6 it was assigned to myself. I received the evidence from the
7 property section from the Aurora Police Department property
8 section and returned the evidence to the chemistry lab where
9 I did the analysis on it.

10 Q And what was the condition of this exhibit when
11 you got it from the property section?

12 A It was in a sealed condition. The red evidence
13 tape was sealed. The blue evidence tape was not on there.
14 Those are tapes that I put on after the course of my
15 analysis.

16 Q And outside the exhibit there is a plastic baggy
17 clear and then another baggy inside of it. Where were those
18 items with that exhibit?

19 A The small self-sealed bag with the blue tape on it
20 was inside the evidence. I don't believe this clear plastic
21 bag was with the evidence at the time I received it.

22 Q Do you know for sure whether or not that was with
23 it?

24 A I don't recall that it was in my report. I think
25 it was just a clear self-sealed bag inside of the evidence

1 envelope, the manila envelope.

2 Q When you got the exhibit, was there any evidence
3 of tampering or that somebody else had opened it after that
4 red tape had been placed on it?

5 A No, all the seals were in tact.

6 Q When you received it did you have an opportunity
7 to analyze the small baggy with the blue tape inside of it?

8 A Yes, I did, the contents of the baggy.

9 Q When was that?

10 A I believe the first time I had contact with this
11 evidence was August 9th of 2011.

12 Q And what tests did you do?

13 A I did the preliminary analysis to include five
14 color tests and two crystal tests.

15 Q And what happened?

16 A I issued a report based on a preliminary analysis
17 of what the contents contained.

18 Q What type of examination did you do?

19 A Again, I did five different color tests; the
20 Marquis, Cobalt Thiocyanate, Scott's reagent, a Dillie, and
21 an Ehrlich's and then I used two different reagents to do
22 the crystal test to see what kind of crystals would form
23 with them.

24 Q And from these tests were you able to form an
25 expert opinion as to what the item contained?

1 A That was -- those tests indicated a preliminary
2 analysis. At a later date I was able to do the confirmation
3 on that, which was done by GC mass spec and at that point I
4 was able to deliver an expert opinion on it.

5 Q What type of test is GC mass spec?

6 A Mass spec.

7 Q Okay. What kind of test is that?

8 A It's instrumental analysis. Essentially we take
9 the sample, extract it or dissolve it in a solvent and
10 analyze it on the instrument. The GC or gas chromatograph
11 is essentially an oven with a column on the inside of it, a
12 thin tube. There's a gas that flows through this tube and
13 the sample is injected into the stream of gas and as it
14 flows through the tube or the column inside the GC,
15 different components will separate out. At the end of the
16 column when it elutes off of the end of the column it goes
17 into the mass spec portion of it. The mass spec,
18 essentially what it does there's electrons that are emitted
19 from a filament and it bombards the molecules and causes the
20 molecule to fragment. Based on that fragmentation pattern
21 and the retention time from the GC analysis and the color
22 and crystal tests that I did I'm able to form a conclusion
23 as to what -- if there's a controlled substance in there and
24 if so what.

25 Q Did you perform this analytical test on August 9,

1 2011?

2 A I did the wet chemistry or the preliminary
3 analysis on August 9th. On August 8th of 2012 I had
4 received a request to do the confirmation on it and that's
5 where I did the GC mass spec portion of it.

6 Q And were you able to form an expert opinion as to
7 what the substance contained?

8 A Yes, I was.

9 Q What was that?

10 A That the powder inside the plastic bag contained
11 cocaine.

12 Q Is cocaine a schedule two controlled substance?

13 A Yes, it is.

14 Q Did you weigh this?

15 A Yes, I did.

16 Q How much did it weigh?

17 A The weight of the powder was 0.27.

18 Q And after you did that --

19 MS. OLDHAM: May I approach, Your Honor, and look
20 at the exhibit?

21 THE COURT: Yes, you may.

22 Q (By Ms. Oldham) I wanted to go through
23 your markings. So you did the preliminary test on
24 August 8, 2011?

25 A August 9th of 2011. I did the confirmation on

1 August 8th of 2012.

2 Q So on August 9, 2011. Are there any markings on
3 the envelope to show how you accessed the envelope?

4 A Yes, there is.

5 Q Can you show us that and explain it?

6 A On the bottom edge the blue tape that goes across
7 I opened up at the bottom edge. When I sealed it I put my
8 initials on one side and then the date on the other side.

9 Q So then you got it out again on August 8, 2012?

10 A Yes.

11 Q And when you got it on August 8, 2012 did it
12 appear it had been damaged, tampered with in any way?

13 A No, it was still in the same sealed condition as
14 when I had put it back into property.

15 Q I'm guessing you opened it again on that date?

16 A Yes, I did.

17 Q Can you show us how you did that?

18 A I opened it along the side and after my analysis I
19 initialed on one side and wrote the date on the other side
20 showing my seals.

21 Q What about the actual baggy of cocaine, are there
22 markings on there?

23 A Yes. When I initially receive the evidence I make
24 all my markings on it to include -- if it's a positive I
25 include the net weight. I include the case number, the item

1 number, my date and initials, and then if I reopen it
2 there's also what's called a gross gram weight that's on the
3 sample and that is done before I begin my analysis and after
4 I conclude my analysis and that is recorded in my notes, so
5 those markings are also on there.

6 MS. OLDHAM: May I have one moment?

7 THE COURT: Yes.

8 MS. OLDHAM: No further questions.

9 THE COURT: Cross-examination?

10 CROSS-EXAMINATION

11 BY MR. GRANT:

12 Q Good morning, Ms. McCawley.

13 A Good morning.

14 Q I'm Paul Grant. I represent Mr. Amini. We
15 haven't talked before, have we?

16 A Not that I know of.

17 Q Did you bring your report with you today?

18 A Yes, I did.

19 Q May I see it?

20 A It's in the back of the courtroom.

21 MR. GRANT: Judge, may she be allowed to retrieve
22 that?

23 THE COURT: Yes, you may step down and get it.

24 MR. GRANT: Judge, for the record I've been handed
25 one sheet of paper which is titled Aurora Police

1 Department Laboratory Report, Forensic Chemistry,
2 detail analysis date 8/8/2012. And there's a front and
3 back to this page.

4 Q (By Mr. Grant) Now, I asked to see your
5 report. I meant your complete report.

6 A Are you asking to see my file?

7 Q Yes.

8 A I have the file with me too if you'd like to see
9 that.

10 Q Yes, I'd like to see that.

11 A Here you go.

12 Q Thank you. Now for the record I've been handed
13 some additional pages, which the first page is titled
14 request for laboratory examination and I don't know, maybe
15 eight or ten pages here. Is this all you brought here
16 today?

17 A Yes, that is, regarding this case.

18 Q Where are your other records related to the
19 examination you did here?

20 A I'm not sure what records you're requesting.

21 Q Your lab notes?

22 A They're in there.

23 Q This is all you have?

24 A Yes, that's all I have.

25 Q Okay. Where are your standard operating

1 procedures?

2 A They were not requested that I bring them and I
3 did not bring them.

4 Q They were requested.

5 MR. GRANT: May we approach, Judge?

6 THE COURT: Yes.

7 (Bench conference was had on the record.)

8 MR. GRANT: Judge, we have asked for the standard
9 operating procedures and we have -- again, I'm going to
10 ask that the witness be allowed to step down.

11 THE COURT: Why don't you step down,
12 Ms. McCawley, for a minute.

13 (The witness left the witness stand.)

14 THE COURT: When and how did you ask?

15 MR. GRANT: Well, we filed a motion asking for
16 these things to be produced and the judge ordered them
17 to produce the litigation package and they produced an
18 inadequate litigation package and we said that we
19 wanted to get the additional information.

20 THE COURT: When did you make an objection to the
21 lack of standard operating procedures?

22 MR. GRANT: I believe it's the motions hearing and
23 the district attorney said that she would seek that
24 additional information from the chemist and if it was
25 available she would provide it.

1 THE COURT: You know what, I'm going to recess
2 the jury for 15 minutes while we deal with this. Hold
3 on a minute, please.

4 (The following proceedings were had on the record in
5 the presence of the jury.)

6 THE COURT: Ladies and gentlemen, it's about time
7 for a morning break and I have an issue before the
8 court that's going to take more than whispering time so
9 I'm going to give the jury a recess break at this time.
10 First the bailiff will take you back to the jury room
11 and then you'll be allowed to go out of the building,
12 circulate, go outside, have a cigarette or whatever
13 you'd like to do. I'm going to take 20 minutes at this
14 time. It's now 10:10, according to my clock. If
15 you'll reassemble and Paul will give you directions as
16 to how and where at 10:30 and I anticipate you'll
17 reassemble in the courtroom at that time. Thank you
18 very much. The jury is in recess. Follow my
19 instructions about not discussing this case.

20 (The jury exited the courtroom at 10:13 a.m.)

21 THE COURT: All right. The record will reflect
22 that the jury is no longer in the courtroom.
23 Mr. Grant, just for your information and for that of
24 Ms. Oldham, I'm looking at the minute orders entered by
25 Judge Rafferty on November 16th that do not contain any

1 reference to a request for order regarding standard
2 operating procedures but nonetheless you go ahead and
3 make your argument as to whatever it is that you want
4 to address.

5 MR. GRANT: Certainly, Judge. We had a pending
6 motion at the time requesting these items be provided
7 and the judge ordered them to provide the litigation
8 package, which wasn't exactly responsive to the
9 request, but that's what the Court ordered and to see
10 what would be in the litigation package and then come
11 back to the Court if he -- if we felt we needed to come
12 back to the Court for additional assistance and get
13 more information.

14 THE COURT: Did you get a -- I don't know what a
15 litigation package is, but did you get the litigation
16 package?

17 MR. GRANT: Well, I got what was described to me
18 was a litigation package.

19 THE COURT: So you received something?

20 MR. GRANT: Yes, which is basically the materials
21 which Ms. McCawley brought today.

22 THE COURT: Okay.

23 MR. GRANT: I haven't compared to see if it's page
24 for page but it appears to be mostly the same.

25 THE COURT: You're distinguishing what you got

1 today from something you've denominated as standard
2 operating procedure?

3 MR. GRANT: And written protocols and lab notes.
4 She says the lab notes are in here so that may not be
5 an issue. Standard operating procedures and protocols.
6 We asked the district attorney and she said she would
7 go back and ask the lab if they have such information
8 available and we were informed informally, not by
9 e-mail but by orally that no such materials are
10 available.

11 THE COURT: All right. Did you come back to the
12 Court before today and address the insufficiency of the
13 prosecutor's response?

14 MR. GRANT: No, we relied on it.

15 THE COURT: That they were not available. Okay.
16 Is that -- you relied on a representation that
17 something was not available?

18 MR. GRANT: Written protocols and written
19 procedures are not available.

20 THE COURT: All right.

21 MR. GRANT: This witness has just testified she
22 didn't bring them. She wasn't asked. Now had they
23 said they had them but they wouldn't provide them, we
24 would have come back to the Court for an order.

25 THE COURT: All right. Ms. Oldham, do you care

1 to make any comment?

2 MS. OLDHAM: I'm just reviewing my e-mails and
3 notes about this. So I do show I had sent e-mails with
4 Ms. McCawley and on May 23rd she said, we can give you
5 what we have regarding the quality manual and also any
6 drug protocols. I won't be able to provide it until
7 next week because she was out. And then on May 28th I
8 asked her to send those over. On May 24th I have my
9 notes that I spoke with Attorney Iyer and told him --

10 THE COURT: Attorney Iyer?

11 MR. GRANT: I-Y-E-R.

12 MS. OLDHAM: Yes, that was the prior attorney, but
13 I told Mr. Iyer that Ms. McCawley is getting the
14 quality manual and drug protocols by next week and that
15 was the end of it. I can tell you after I wrote that
16 note I didn't follow up with it, but that was my note.

17 THE COURT: All right. Hold on just a minute,
18 please. Mr. Grant, if I understand what you're saying
19 to me today, and I invite you to help me, you're
20 concerned with your contention that the Aurora Police
21 Department through the prosecution has not produced
22 what you've denominated a standard operating procedure
23 for drug analysis; is that a correct statement of what
24 you're saying?

25 MR. GRANT: And written protocols, Judge.

1 THE COURT: What's the difference between standard
2 operating procedures and written protocols?

3 MR. GRANT: Judge, I could go through that with
4 the expert but they're basically -- and I would ask
5 that the witness be excused from the courtroom.

6 THE COURT: All right. Ms. McCawley, if you'll
7 step out, please.

8 (Ms. McCawley exited the courtroom.)

9 MR. GRANT: Judge, there are a lot of procedures
10 and policies that should be established by a qualified
11 lab to perform analytical research such as forensic
12 analysis of drugs, and qualified and competent labs do
13 establish written protocols and procedures which govern
14 every aspect of what they do.

15 THE COURT: What is the difference between a
16 written protocol and a procedure?

17 MR. GRANT: Judge, I would like to ask her to
18 explain that but I'm not the expert, but I will tell
19 you this that there are various procedures that are
20 very detailed oriented about how samples are prepared,
21 how standards are analyzed, how standards are
22 documented, and there are written protocols which
23 establish which procedure should be followed. You
24 might think of a protocol as something that governs the
25 procedures.

1 THE COURT: All right. Thank you for answering my
2 question. I have reviewed a -- the minute orders of
3 May 16th and subsequent to May 16th an attorney on
4 behalf of the defendant is Mr. Iyer, I-Y-E-R, filed a
5 motion to -- actually filed two motions. The first was
6 titled defendant's second supplemental motion for
7 additional discovery and/or motion to compel the People
8 to comply with the Court's orders relating to
9 discovery. That was apparently filed with the Court on
10 June 7th of this year and then on June 12th Mr. Iyer
11 also filed a titled document, defendant's motion to
12 compel prosecution to comply with discovery and Court
13 orders relating to discovery or motion for sanctions
14 against the People for failure to comply with discovery
15 and Court order relating to discovery or motion for
16 other relief. Now, reviewing these two motions,
17 there's no mention of standard operating procedures or
18 protocols. If I understand what you're suggesting, you
19 made some oral request at somewhere along the line for
20 these protocols; am I understanding you correctly,
21 Mr. Grant?

22 MR. GRANT: No, Judge.

23 THE COURT: All right. Then help me.

24 MR. GRANT: I hope that -- well, I don't believe
25 so. I'm trying to open a document here. Judge, the

1 motion filed on May 14th, I believe it's dated May
2 14th. I'm not sure which date it's filed. It's titled
3 defendant's motion for discovery.

4 THE COURT: Let me turn to that. I think I saw
5 that in the file.

6 MR. GRANT: And specifically paragraph B starts
7 request -- detailing a request for information relative
8 to Rule 16 and experts so we can allow effective
9 cross-examination so we can conduct effective
10 examination.

11 THE COURT: I don't have that motion. Let me see
12 if I can find it. May 16th?

13 MR. GRANT: 14th. That's the date it was signed.
14 I'm not sure which date it was filed. I don't have a
15 file date on the copy I have. I believe this is the
16 motion the Court was responding to in this minute
17 order.

18 THE COURT: Let me read it, please. Just a
19 moment, sir. All right. I've read the motion. It is
20 dated the 14th of May and is signed by Mr. Iyer, so
21 what's your point with this motion, Mr. Grant?

22 MR. GRANT: This is it where we have made the
23 request for -- very detailed request for information,
24 including processes and protocols for testing
25 substances, laboratory testing procedures, so there's

1 the request for procedures and protocols. Also quality
2 assurance manual, all laboratory testing manuals.

3 THE COURT: Where does it say quality assurance
4 manuals?

5 MR. GRANT: Roman Numeral 5 under paragraph B.

6 THE COURT: All right. Thank you.

7 MR. GRANT: Also calibration notes and results for
8 the equipment used, maintenance records, repair notes,
9 et cetera.

10 THE COURT: Did the Court rule on this aspect of
11 this motion?

12 MR. GRANT: The Court, as I recall, the ruling was
13 that the lab should produce its standard litigation
14 packet and then we would advise the Court -- if that
15 was inadequate we would come back for further relief
16 and we were told informally by the district attorney
17 that this -- what we got was all there is.

18 THE COURT: All right.

19 MS. OLDHAM: Your Honor, I'm sorry to interrupt
20 but I did further investigation. We actually have
21 discovered this. I have a copy of the Aurora PD crime
22 lab quality manual, drug SOPs, and I show that this CD
23 was discovered to Mr. Grant on June 20th of 2013.

24 MR. GRANT: I don't have it, but I can't explain
25 why right now.

1 THE COURT: Did you get it?

2 MR. GRANT: I don't recall ever having seen it or
3 receiving the notice of it.

4 THE COURT: I'm sitting in this situation. It's
5 a he said, she said. I don't mean to be trite. She
6 says she has a record of having produced the
7 information to you and you say you don't remember.

8 MR. GRANT: Well, she has a record of her office
9 having sent a notice to me of its existence. I don't
10 know if she has a record beyond that. I don't know but
11 I don't have it.

12 THE COURT: Ms. Oldham, let's make the record
13 clear. When you say you have a notice that it was
14 discovered, what does that mean? Does that mean it was
15 physically presented to or that he was notified of his
16 existence?

17 MS. OLDHAM: I'm checking both because we have two
18 records. The first record shows that on June 20th he
19 was notified on June -- it shows he was notified on
20 June 21st. I'm now going through discovery receipts to
21 see if he actually came and picked it up.

22 THE COURT: All right. Go through it.

23 MS. OLDHAM: I show that it was prepared for him
24 and given to him on August 5, 2013.

25 MR. GRANT: May I see what the exhibit is? What

1 the discovery is, the disk? May I look at the disk?
2 Judge, I believe this information is responsive to the
3 request but I've never seen it before. I can't tell
4 this Court whether my office ever saw it but I've never
5 seen it, but I am prepared to proceed with questioning
6 this witness if I could use this, if I could work from
7 it.

8 MS. OLDHAM: I don't have an objection. I just
9 want to say for the record it was paid for with check
10 number 2730.

11 THE COURT: Would that be a check from the
12 counsel's office?

13 MS. OLDHAM: Correct.

14 THE COURT: All right. Well, I'll accept your
15 offer to proceed, Mr. Grant. It appears to the Court
16 that the discovery was made to you but since you're
17 ready to proceed we will, but we're going to take 10
18 minutes ourselves right now and then we'll resume the
19 trial. Court will be in recess for 10 minutes. You
20 can study that material while we're breaking.

21 (Court stands in recess.)

22 THE COURT: All right.

23 (The jury entered the courtroom at 10:43 a.m.)

24 THE COURT: Ms. McCawley, if you'll resume the
25 stand, please. All right. You're still under oath.

1 THE WITNESS: Okay.

2 BY MR. GRANT:

3 Q Ms. McCawley, I think I now have what I need to
4 proceed and I appreciate the fact that this was provided.
5 I'm looking at a document called quality manual. Is that
6 the quality assurance manual of the Aurora Police
7 Department?

8 A Yes, we do have one created, yes.

9 Q Okay. And titled crime lab section quality
10 manual?

11 A I believe so.

12 Q Okay. I've also been provided with and have in
13 front of me a document which is titled something about
14 standard operating procedures, but let me see if I can get
15 the right document. Aurora Police Department Crime Lab
16 Section Standard Operating Procedures Chemistry Detail?

17 A Yes.

18 Q Would you agree that the lab -- this is a
19 laboratory published document?

20 A Yes, they are.

21 Q Okay. And just in general, if you could help us,
22 what are standard operating procedures in a laboratory like
23 yours?

24 A Essentially they're methods or guidelines to
25 follow when doing our analysis. They're essentially the way

1 that we do our analysis.

2 Q And they're in writing?

3 A Yes.

4 Q Why are they put into writing?

5 A Essentially so that you've got everybody on the
6 same page, everyone's doing it consistently and not
7 deviating.

8 Q And also if you put them in writing then they can
9 be examined to see if there might be something wrong with
10 their procedures?

11 A That's correct.

12 Q In fact your lab has to provide documentation of
13 its procedures to various agencies from time to time, would
14 you say?

15 A Yes, when it's requested.

16 Q And what kind of testing is your lab capable of
17 performing? What types of testing do you do for the Aurora
18 Police Department?

19 A What I analyze essentially is evidence that's
20 submitted for the presence of controlled substance. It
21 could be powders. It could be plant materials, pills,
22 tablets, capsules, liquids. Sometimes we've had food
23 products submitted to the laboratory to try and identify if
24 anything is in there. Those are the types of things we do
25 in the drug section.

1 Q You've described some of the methods you have
2 available for analyzing unknown substances?

3 A That's correct.

4 Q And you've testified about your own education and
5 training and experience.

6 A That's correct.

7 Q And you have ongoing training?

8 A That's correct.

9 Q You have been involved in lab testing for many
10 years?

11 A That's correct.

12 Q Couple decades?

13 A You could put it that way, yes.

14 Q And you mentioned, I believe, that there's some
15 preliminary tests you can do on a suspected cocaine
16 substance?

17 A Or any suspected controlled substance.

18 Q Okay. In this case you were told that this was
19 suspected to be cocaine?

20 A I don't recall. It might be on the lab request.

21 Q There was a presumptive test already done?

22 A Okay.

23 Q Someone named Kelsey?

24 A I don't remember looking at that when reviewing
25 the notes but it's very possible that the -- that I knew it

1 at the time, yes.

2 Q What were the possible methods of the analysis
3 when you received the analysis of that sample.

4 A Essentially, as I testified earlier, I do a series
5 of color tests. I do typically five different color tests.
6 Depending on the results of those color tests I may add more
7 color tests, but the color tests that I do allow me to test
8 for opiates, cocaine, hallucinogens, methamphetamine,
9 ecstasy or stimulants, so it covers a broad gambit of
10 different types of controlled substances.

11 MR. GRANT: If I may approach the witness, I'd
12 like to ask her if this would help refresh her memory
13 about what she did.

14 THE COURT: You may.

15 Q (By Mr. Grant) I'm handing you what
16 appears to be an e-mail directed to yourself
17 regarding the request in this case.

18 A Yes, this was an e-mail from August of 2012, so
19 that would have been a year after I'd already done my
20 preliminary analysis.

21 Q At that point you were informed that there had
22 been a presumptive test positive for cocaine?

23 A That's correct.

24 Q So you knew in advance what you expected you might
25 see?

1 A Again, that e-mail was from 2012 after I had
2 already done my preliminary analysis in 2011 and so I don't
3 know if the officer was talking about a presumptive that
4 they had done at that time or if that was based on the
5 results that I had done.

6 Q Okay. What were the techniques available to you
7 for analyzing that substance? What -- how did you choose
8 which methods to use?

9 A It was a powder and so I was able to analyze the
10 powder -- just do the powder itself. I didn't have to do
11 any kind of an extraction beforehand for my preliminary
12 analysis, and as I said earlier, I do a series of color
13 tests to eliminate or to try and identify different types of
14 compounds present and sometimes I get mixtures so I will go
15 ahead and do a series of color tests to try and identify
16 anything that might be controlled in there.

17 Q Well, what I was asking was, you talked earlier
18 about having these GC mass spec.

19 A For confirmation.

20 Q Yes.

21 A For confirmation we have two choices. It's FTIR
22 or GC mass spec. Most commonly I choose GC mass spec
23 because if I have a compound it's not typically a pure
24 compound, it's a mixture, and with GC mass spec it will
25 separate the different components out where as FTIR you want

1 an almost pure compound to do the analysis.

2 Q So you chose the mass spec.

3 A That's correct.

4 Q Process or procedure. And you have the equipment
5 in the Aurora Police Department lab to perform those tests
6 yourself, correct?

7 A That's correct.

8 Q And you, in fact and as part of the testing
9 process probably have to acquire samples of drugs,
10 controlled substances for establishing standards and things
11 like that?

12 A We acquire purchase standards, yes, from vendors.

13 Q What do you do to verify your ability to detect
14 the drugs?

15 A In the standards or in the samples?

16 Q In the standards first.

17 A The standards --

18 Q And then in the samples.

19 A What we do is when we have a standard we run it on
20 the equipment or run it on the instrumentation. There is
21 published literature out. Our mass spec and -- or GC mass
22 spec and the FTIR both have published libraries with them
23 and so we can do a search on the compound after we do the
24 acquisition of the data and so the standard would be
25 compared against published literature to verify that that is

1 the -- that it actually is. If it says it's cocaine, that
2 it actually is cocaine. And then when we run our samples,
3 we are going to run the sample and do a library search on
4 it, see what it comes up with the best match for it and then
5 we also run the purchase standard on that equipment the same
6 day and then compare the standard again to the library match
7 and then the standard to the sample to make sure that
8 they're consistent with each other.

9 Q Who verifies that your lab is doing quality work?

10 A Currently we are not an accredited laboratory.
11 That is something we are working for.

12 Q So you're self-verifying?

13 A Yes.

14 Q Now, you have been trained -- you have been
15 educated with a bachelor's degree in chemistry and biology?

16 A That's correct.

17 Q So you were taught basic scientific principles, I
18 assume, in some of those courses?

19 A Yes, I was.

20 Q And over your experience you've had exposure to
21 discussion of the methods that should be followed by
22 competent labs?

23 A Yes, I believe so.

24 Q And part of the quality -- or part of the
25 establishing, say, the quality of a lab is its ability to

1 produce results accurately?

2 A That's correct.

3 Q And that some other lab could duplicate?

4 A That's correct.

5 Q If you don't have written procedures and policies,
6 they can't follow your procedures in order to see if they
7 can duplicate your results, can they?

8 A That's correct.

9 Q And I have in front of me your standard operating
10 procedures for the Aurora Police Department lab and I don't
11 find any for the GC MS.

12 A That's correct. We did not have a written policy
13 at that time.

14 Q So there wouldn't have been anything anyone could
15 have evaluated to see if your standard operating procedures
16 were even technically correct?

17 A They could have evaluated the data and -- to
18 determine that we're making the correct determination of the
19 compounds coming out. On the mass spec it gives you two
20 different pieces of data. One is the retention time, which
21 is how long it takes to come off the end of the GC from the
22 time injected and then also the fragmentation pattern formed
23 by the mass spec and also that there's a standard included
24 in there that we ran a standard, a blank, which is nothing
25 in it and then the sample and we can -- you can look at the

1 data and see that this looks like they did it the right way,
2 that at least there's no carryover; that the sample matches
3 the standard in all points as far as the fragmentation
4 pattern and the retention times. As far as exactly how we
5 extracted it, that's not there. That would be the --
6 probably the biggest difference about the mass spec.

7 Q So if there was some agency which wanted to verify
8 your work, they wouldn't be able to verify that your SOP's
9 were scientifically acceptable?

10 A They could not -- at that time we didn't have an
11 SOP so there was no way to verify it, but they could take
12 the sample and reanalyze it and verify whether or not that
13 substance was in that sample.

14 Q So there was no way that you could get
15 accreditation without standard operating procedures?

16 A That is part of accreditation is having SOP's in
17 place, having the quality manual and various other things
18 that we are having to document and put in place to include
19 security and spacing and personnel before the laboratory is
20 an accredited body.

21 Q You have to keep maintenance logs on all the
22 equipment, correct?

23 A That's correct. We do that.

24 Q You have to have records of your testing that
25 equipment from time to time to show that it is capable of

1 performing?

2 A That's correct. We do that.

3 Q And you haven't produced any of that for us, have
4 you?

5 A No, I have not.

6 Q So do we have your word for it that the equipment
7 was working properly?

8 A Yes, you do.

9 Q How long have you been working with Aurora Police
10 Department Laboratory?

11 A Thirteen years, almost fourteen.

12 Q Has the lab ever been certified or accredited
13 during that time?

14 A No, that's a fairly recent event or -- yeah,
15 fairly recent situation that is becoming popular or required
16 in the forensic community.

17 Q Well, since you're reporting back analyses on
18 suspected controlled substances as in this case, that really
19 seriously affect people's lives, don't you think it's
20 appropriate that you have standard operating procedures?

21 A Yes.

22 Q How many years have you operated without them?

23 A I believe I have been in only one laboratory that
24 was accredited and that was the coroner's office and that
25 was the Sedgwick County Regional Forensic Sciences Center.

1 Other than that in Chicago it was not required. It wasn't
2 even thought of back then, neither was it in Nebraska, so
3 like I said, it's a fairly recent occurrence that is coming
4 about.

5 Q Now you mentioned something about other labs could
6 look to see what you did in terms of retention rates and
7 fragmentation, something like that?

8 A Yeah, retention times and fragmentation patterns,
9 yes.

10 Q And you mentioned retention rate is the time that
11 the -- I forget the word you used. Remains in the column?

12 A The retention time is how long it takes from the
13 time injected to the time it comes off the end of the
14 column.

15 Q No, I was asking for the word you used, dilute?

16 A Elute.

17 Q Elute?

18 A Yes.

19 Q Okay. In fact you cut yours off -- your retention
20 time in your column, you cut it off at a certain point in
21 time. You could have left it longer, correct?

22 A We have specific programs that we have set up on
23 the instrumentation, depending on what the compounds of
24 interest that we are looking for. The GC is an instrument
25 where we can program the temperature and the flow rate on

1 it, any number of a different ways. We can change the oven
2 temperature. We can change the flow rate. We can ramp the
3 temperature. We can keep it at an isothermal temperature,
4 so we have created different programs depending on the
5 different type of compounds. Some are very heavy molecular
6 weight compounds and they take a long time to elute so we
7 have made programs that don't start at a low temperature so
8 we're not waiting for 20, 25 minutes for something to come
9 off. We've created other programs where something comes off
10 real early like methamphetamine so we make a program that is
11 specific for the lighter compounds and so they will come off
12 at a reasonable timeframe, so that is the way we have done
13 it in our laboratory.

14 Q And you could have allowed for a longer retention
15 time and got more information; is that correct?

16 A A longer run time but not a longer retention time.
17 That would have required changing methods around.

18 Q Right. Had you done that you would have been able
19 to see more of the compounds that may have been present,
20 correct?

21 A It depends. If it's soluble. If there's a
22 compound that's in there that's soluble in that solution we
23 may have seen them. They may have come off before we turned
24 the mass spec on because the first, I believe two and a half
25 or three minutes of the run we don't have the mass spec

1 turned on. The filament is not turned on because typically
2 the solvent comes off at that time and all that does is burn
3 out your filament. It reduces the life of your filament so
4 if there was something that came out earlier, we may not see
5 it. If there's something that comes out later, quite
6 honestly I haven't seen too much come out later because I
7 run a blank a lot of times after the sample and nothing ever
8 comes out. One of the reasons for running the blanks in
9 between standards and samples and samples and other samples
10 is to verify that there's nothing else in there, and then
11 again as I mentioned, there might be something in the
12 mixture that's not soluble so therefore we never see it.

13 Q Now, you know I would imagine in your business you
14 know of instances where police labs have been found not to
15 have been producing competent results?

16 MS. OLDHAM: Objection, Your Honor, relevance.

17 THE COURT: Objection's overruled.

18 A I'm sorry, I didn't hear what --

19 Q (By Mr. Grant) You can answer.

20 A Oh, okay. Yes, there have been a couple
21 laboratories. One's in the news fairly recently.

22 Q For instance the lab in Massachusetts?

23 A Yes.

24 Q Where for years a person was accused of not
25 following standard procedures?

1 A I believe she was accused of doctoring the
2 samples.

3 Q And worse, yes?

4 A Uh-huh.

5 Q Okay. And has the Aurora Police Department lab
6 had any certifications or accreditations in the past which
7 it doesn't currently have?

8 A No, we have not, other than for blood alcohol
9 analysis and we still currently have that one.

10 Q How about urine drug testing?

11 A We do not do that.

12 Q Okay. Let's see. What, by the way, prevents a
13 laboratory technician, someone performing these tests, from
14 doctoring a sample?

15 A In our laboratory we currently -- I should say
16 periodically we end up retesting each other's samples. If I
17 have done the case initially and for whatever reason I'm not
18 available for court, my coworker will reanalyze the case
19 and -- so and vice versa and that happens typically five to
20 ten times a year where we're reanalyzing each other's cases
21 and so that would prevent -- in my case it would prevent me
22 from doctoring a sample or not reporting out the correct
23 results. For me personally it's ethics. I mean, there's no
24 reason for me to doctor a sample.

25 Q But if you're of a mind to, you could, correct?

1 A If I was of mind to, yes, I could.

2 Q Now your lab -- you said it is certified to test
3 for blood alcohol?

4 A That's correct, by the State of Colorado.

5 Q But it's not certified to test for drugs in blood?

6 A No, it is not.

7 Q Or for drugs in urine?

8 A No.

9 Q But there are a number of labs in Colorado that
10 are certified for those types of analysis, aren't there?

11 A Yes, there are.

12 Q Now, are there accreditation agencies or whatever,
13 I don't know what the word is, agencies or organizations
14 that you would go to to seek accreditation?

15 A I believe for forensic chemistry or for forensics
16 I know of only two accrediting bodies.

17 Q And they are?

18 A ASCLD, American Academy of Crime -- American
19 Accreditation of Laboratory Directors and the other one is
20 forensic -- I can't recall the name. That's a fairly newer
21 accrediting body.

22 Q So at this point in time and for the last several
23 years there's no monitoring agency to come in and test your
24 proficiency in analyzing drugs?

25 A We do do proficiency tests on an annual basis.

1 The sample is submitted to the laboratory. We do the
2 analysis, report the results and get the findings, so we do
3 do proficiency tests on an annual basis.

4 Q You do that for yourself?

5 A No, there's an agency that we purchase the
6 proficiency testings from and they send it into us. We do
7 the analysis, report it to them and they send us the results
8 of the various laboratories. No names of the laboratories
9 but just the statistics and let us know what the results are
10 of those samples that were sent to be tested, so we do that
11 on an annual basis. I don't remember if we do it once or
12 twice a year. Some locations I've done them twice.
13 Sometimes only once, but other than that, accrediting
14 bodies, that's it.

15 Q And when you get a sample and you're asked to test
16 it, you don't know where it's been, do you?

17 A No, I do not.

18 Q You don't know the circumstances under which it
19 was acquired?

20 A No, I do not.

21 Q You just take it as you receive it?

22 A That's correct.

23 Q Open the packages, test it, repackage it, and seal
24 it?

25 A That's correct.

1 Q Okay. So you don't know how old the sample is?

2 A No, I do not.

3 Q You don't know how many people have had access to
4 it?

5 A No, I do not.

6 Q Do you expect that some day the Aurora Police
7 Department may become accredited?

8 A Yes, I do.

9 Q Have you worked with the Colorado Department of
10 Public Health in relation to blood alcohol testing?

11 A Yes, I have.

12 Q Have they also had recent problems in terms of
13 their quality control?

14 A I believe they have. That's the Department of
15 Health Toxicology Laboratory for blood alcohol, drug and
16 urine testing.

17 Q In fact it's been shut down?

18 A Yes, it has been.

19 MR. GRANT: Nothing further.

20 THE COURT: Redirect examination?

21 REDIRECT EXAMINATION

22 BY MS. OLDHAM:

23 Q Why is there a presumptive done and then an
24 analytical test?

25 A The preliminary test is done basically to

1 determine if there is something present or not. We do the
2 confirmations as kind of a -- we wait to do the
3 confirmations as kind of a saving measure. Not every case
4 goes to court and if there's not enough foundation or
5 whatever then we don't need to do the confirmations on it,
6 so the preliminary analysis is issued just to allow
7 everybody to proceed further with the case.

8 Q And when you know the preliminary results, does
9 that change then how you do the final testing?

10 A If you're talking my preliminary results versus an
11 officer's preliminary results, yes, it definitely --
12 actually it doesn't really change the confirmations very
13 much. I'm still going to typically use GC mass spec,
14 however, whatever solvent I dissolve it in or how I extract
15 it, if it needs to be a base, chloroform extraction versus
16 just a hexane extraction, yes, knowing the presumptive gives
17 me an idea of how to extract it to be able to do the mass
18 spec on it.

19 Q If you know the preliminary can you then somehow
20 skew the test to make sure it's cocaine?

21 A I have to think about that. If -- in our
22 laboratory our policy if the color tests are positive but
23 we've had to use a lot of sample; in other words, we can get
24 positive results on minute amounts of controlled substances
25 for the most part, so you can concentrate your sample to be

1 able to get a result. Our policy, though, is that if it's a
2 weak result and on the mass spec it appears to be weak, we
3 will report it out as insufficient amount, so in other
4 words, like it's a contaminate. If there's a bag of baking
5 powder and for some reason I'm finding methamphetamine in
6 it, I'm not going to report it out. I will write it out as
7 quantity insufficient or just negative and I will leave it
8 in my notes as, you know, small amount, trace amount,
9 contaminant, something like that, but to skew the results,
10 if I get the preliminary, the confirmation, I've never had
11 where the confirmation does not agree with the preliminary,
12 so if the preliminary results indicate -- my preliminary
13 results indicate the presence of cocaine then it's either
14 cocaine or it's QNS, quantity not sufficient.

15 Q Was the testing you did in this case accurate?

16 A Yes, it was.

17 Q How do you know that?

18 A Well, everything agrees. The preliminary tests
19 that I did, the microscopic crystal tests that I performed
20 and then the gas chromatography mass spectroscopy all agree
21 with the same results that there was cocaine present in the
22 sample.

23 Q And you mentioned that to prevent doctorings of
24 samples, that at your lab you and your colleagues will test
25 each other's testing to make sure it's accurate. Are there

1 any other safeguards used to make sure that the testing is
2 accurate?

3 A Other than making sure our reagents are working
4 properly, that the instruments are working properly, that we
5 clean up our work spaces between cases so we don't cross
6 contaminate; that we clean up our equipment, those things
7 are employed to make sure that we're not cross contaminating
8 or interfering with any of the accuracy of the results.

9 Q Were those safeguards used for this case?

10 A Yes, they were.

11 Q So there was a lot of questioning about the lab
12 not being accredited. How is it that the lab can operate in
13 this manner without being accredited?

14 MR. GRANT: Objection, Judge, this calls for a
15 legal explanation.

16 THE COURT: Objection's overruled.

17 Q (By Ms. Oldham) You can answer.

18 THE WITNESS: I'm sorry, Your Honor, I'm having a
19 hard time hearing you.

20 THE COURT: I'm sorry. I'll speak up. The
21 objection's overruled.

22 A Okay. Some states are having to be accredited by
23 their state legislature. Currently Colorado does not
24 require that as a prerequisite for a laboratory to be in
25 business as a forensic laboratory. It is something that is

1 coming, as far as laboratory -- forensic laboratories being
2 accredited. As I mentioned earlier there's only two
3 accrediting bodies out there right now.

4 Q Even though the Colorado legislature hasn't
5 dictated that your lab be accredited, are you taking steps
6 to do so?

7 A Yes, we are.

8 Q Does the forensic lab have to go through any other
9 procedures or certifications to run as a -- to run as a
10 forensic lab?

11 MR. GRANT: Objection to vagueness of that
12 question. Do they have to? By what standards?

13 THE COURT: See if you can restate your question,
14 please, Ms. Oldham.

15 Q (By Ms. Oldham) Does the Aurora Police
16 Department lab undergo any sort of certifications or
17 other procedures in order to run as a forensic lab?

18 A No.

19 Q Was there anything indicating to you that the
20 equipment wasn't working properly with this test?

21 A No.

22 Q Have you been informed that the sample you tested
23 and confirmed as cocaine was later found not to be cocaine?

24 A No, I have not.

25 Q Is there anything to indicate to you that your

1 testing was inaccurate?

2 A No.

3 Q Did you doctor the sample?

4 A No, I did not.

5 Q Thank you.

6 THE COURT: Any questions from the jurors for
7 this witness?

8 MR. GRANT: Judge, can I have brief recross?

9 THE COURT: Approach the bench.

10 (Bench conference was had on the record.)

11 MR. GRANT: I'm requesting the opportunity to do a
12 short recross on this witness in response to the
13 questions just asked by the district attorney.

14 THE COURT: What questions?

15 MR. GRANT: The questions about can she skew the
16 test. I don't think that she answered that as
17 accurately as she may and I need to clarify that with
18 the jury.

19 THE COURT: On that topic, yes. Beyond that, no,
20 unless I've given you specific consent.

21 (The following proceedings were had on the record in
22 the presence of the jury.)

23 RECROSS-EXAMINATION

24 BY MR. GRANT:

25 Q Ms. McCawley, you were asked by the district

1 attorney if you could skew the test and you answered no.

2 A Correct.

3 Q Okay. But isn't it true that you could skew the
4 test in many ways? You could test some other sample. You
5 could make up your own sample. You could add material to
6 the sample. There are many things you could do to affect
7 the test if you knew the presumption test was cocaine, you
8 could make sure that the confirming test was cocaine, if you
9 wanted to. A person without ethics if you wanted to mess
10 with the test.

11 A If the presumptive test is cocaine, I can't see
12 any reason to doctor it or do anything to it to make the
13 confirmation test be cocaine. If it's a laboratory that did
14 the confirmation -- or the presumptive test. Some of our
15 officers are trained in some of the presumptive tests and
16 they don't necessarily get them correct, so we don't
17 necessarily go by what the officer's presumptive tests are.
18 That's why a laboratory chemist does the tests. There's no
19 reason to -- quite honestly there's no reason if there's a
20 preliminary analysis because the preliminary analysis that
21 we do are much more sensitive. They used to be much more
22 sensitive. They're very sensitive in regards to testing for
23 the presence of the controlled substances.

24 Q But my real question is whether it's the
25 presumptive or whatever, you can cause a result that you

1 want -- or a lab technician could or a person analyzing the
2 sample, they can reach the conclusion they want by
3 manipulating what they're testing, can't they?

4 A Yeah, they could.

5 Q Okay. Yeah, so it's certainly not an
6 impossibility. There's nobody standing over their shoulders
7 making sure it doesn't happen, is there?

8 A No, that's correct.

9 THE COURT: All right. Juror questions? Counsel,
10 approach the bench, please.

11 (Bench conference was had on the record.)

12 THE COURT: I have this written three-part
13 question from a juror. Ms. Oldham, do you have any
14 objection to the Court asking the questions?

15 MS. OLDHAM: No objection.

16 MR. GRANT: No objection.

17 THE COURT: All right. Thank you.

18 (The following proceedings were had on the record in
19 the presence of the jury.)

20 THE COURT: Ms. McCawley, the jurors have
21 submitted a three-part question so I'm going to present
22 the questions and ask for your answer to the best you
23 can. First, what is the error rate for this lab?

24 THE WITNESS: So far we have not gotten anything
25 wrong in any of the retests we've done or any of the

1 proficiency tests we've come out a hundred percent.

2 THE COURT: The next question may have been
3 answered but it is: How many errors are made per year?

4 THE WITNESS: Again, it would be none that we
5 know of.

6 THE COURT: Third one reads: How many errors has
7 this specific tech made?

8 THE WITNESS: To my knowledge I haven't made any.

9 THE COURT: All right. Thank you. You may step
10 down.

11 THE WITNESS: Thank you.

12 THE COURT: Prosecution's next witness, please.

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1 STATE OF COLORADO
2 COUNTY OF ARAPAHOE (ss)

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REPORTER'S CERTIFICATE

6 The above and foregoing is a true and accurate transcription
7 of my stenotype notes taken in my capacity as the Court
8 Reporter for the Arapahoe County District Court, State of
9 Colorado.

10 Dated at Arapahoe, Colorado, this 8th day of January, 2014.

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Janean P. Scott

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