

Phase II Plan
of the
Independent Investigator for the HPD
Crime Lab and Property Room

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Introduction

This is the proposed Phase II Plan of the Independent Investigator for the Houston Police Department (“HPD”) Crime Laboratory and Property Room. Our contract with the City of Houston (the “City”) requires that, during the first phase of the investigation, we develop, in consultation with HPD, a plan outlining the scope of the case reviews and continuing investigative activity that we anticipate for the second phase.

The Request for Proposals (“RFP”) issued by HPD in connection with commissioning this review of the Crime Lab and Property Room suggests that 1,966 individual case reviews be performed across six forensic science disciplines historically worked in the Crime Lab. With respect to the areas of trace, controlled substances, firearms, questioned documents, and toxicology, the RFP called for the cases to be drawn from the seven-year period 1998 through 2004. The DNA and serology cases are to be selected from cases performed between the years 1987 through 2002, when the operations of the Crime Lab’s DNA section were suspended.

During Phase I of the investigation, we have reviewed the methodology by which HPD arrived at its suggested sample size of 1,966 cases, and we determined that it would be prudent to consult with expert statisticians to develop our own sample populations. After advising HPD and gaining the approval of the Stakeholders Committee overseeing our investigation, we have retained and consulted with statisticians from the firm PricewaterhouseCoopers LLP (“PwC”), including PwC partners Dr. Jessica Pollner and Arthur Baines. With PwC’s guidance, we have developed appropriate sample sizes for the case reviews to be performed by our forensic scientists in each of the following forensic science disciplines:

- DNA/Serology
- Trace analysis
- Controlled substances
- Firearms
- Toxicology

For the sixth discipline, we will review all of the approximately 200 questioned document cases examined by HPD since 1998.¹

We also have selected separate statistically-based sample populations of the controlled substances cases analyzed by former HPD Criminalists Vipul Patel and James Price across the entire period each was employed as a drug analyst in the Crime Lab.

Phase II Case Reviews

During Phase I, the members of our Scientific Advisory Board conducted a limited number of preliminary case reviews in each of the six forensic science disciplines relevant to our investigation in order to contribute to our assessment of (1) the appropriate number of cases to be reviewed in each of the Crime Lab's disciplines, and (2) the approximate time it will take to complete these case reviews. Based on these reviews, we developed a general familiarity for the contents of the Crime Lab's case files and some of the potential issues our scientists might encounter while reviewing the case files. We shared this information with PwC and considered it, along with other factors, in establishing the parameters used in arriving at our proposed sample sizes.

Working with personnel in the Crime Lab and HPD's Technology Services Division, we created electronic databases of all of the cases analyzed by each of the Sections within the Crime Lab, with the exception of questioned documents, during the defined time periods.² These databases contain case identification information related to approximately 130,000 cases, across five forensic science disciplines, performed by more than 50 analysts. We provided these databases to our statisticians at PwC, who reviewed and refined the data in order to prepare the information for the statistical analysis involved in developing our sample sizes and the process for selecting the individual cases we will review.

In order to cover the case reviews required under the RFP, as well as the targeted case reviews that HPD has requested with respect to the controlled substances cases analyzed by Mr. Patel and Mr. Price, we have defined a total of nine categories of cases for which we have developed, in consultation with PwC,

¹ The Questioned Documents Section only recently became part of the Crime Lab. Prior to May 2004, questioned documents examination was a function within HPD's Identification Division.

² For the reasons discussed below, we will review all of the questioned documents cases from 1998 through 2004, which total approximately 200. Accordingly, we have not developed a sample size population with respect to these cases.

appropriate sample sizes. The total number of cases in each of these nine categories, and the sample sizes we have selected for them, are set forth in the table on the following page. The specific considerations that factored into the sample size determinations for each of the nine categories are discussed later in this section.

PwC's sample size determinations are based on the theory of attribute sampling so that the results achieve a 95 percent confidence level and 5 percent precision, with an expected rate of occurrence of 50 percent.³ These sample parameters are very conservative and designed to obtain a highly reliable and representative sample in each area. PwC refined the population of cases for each discipline based on our requirements to obtain a unique sample population for each category of cases that we have developed. This approach will allow us to develop valid conclusions separately for each of the forensic science disciplines, as well as overall conclusions for the Crime Lab. For each of the samples, we will review preliminary results based on a partial review of the sample in order to determine whether expansion or additional refinement to the focus of the review should be made.⁴

³ The confidence level of a statistical sample addresses its reliability. For example, a confidence level of 95 percent means that if a sample of the same size is selected from the same population 100 times, the results will reside within the 95 percent confidence interval 95 times out of 100. Precision is the accuracy of the sample estimate and defines the width of the confidence interval. The expected rate of occurrence is the expected percentage of cases that are error free. An expected rate of occurrence of 50 percent results in the largest sample size for an attribute sample.

⁴ There are approximately 411 cases – out of a total of 129,506 cases-- in the Crime Lab's case logs that did not appear to have been assigned to an analyst or were assigned the generic tracking designation "U." As a result, we have not allocated those cases to a particular Section in the Crime Lab. These cases have been excluded from the populations from which we made our sample selections, and we have not created a separate sample for them. We will investigate the nature of these 411 cases to confirm that they do not belong in any of our samples.

Serology (1987 – 1990)	Number of case	2,672
	Sample size	336
DNA/Serology (1991 – 2002)	Number of cases	5,243
	Sample size	358
Firearms (1998 – 2004)	Number of cases	6,910
	Sample size	364
Toxicology (1998 – 2004)	Number of cases	1,584
	Sample size	309
Trace Evidence (1998 – 2004)	Number of cases	223 ⁵
	Sample size	141
Controlled Substances (1998 – 2004)	Number of cases	97,766 ⁶
	Sample size	383
James Price	Number of cases	3,088
	Sample Size	342
Vipul Patel	Number of cases	7,659
	Sample Size	366
Questioned Documents (1998 – 2004)	All cases	approx. 200
Total Phase II Case Reviews		2,799

Based on our preliminary case reviews, and in particular the documentary gaps that appear to exist in many of the case files, we have determined that it may well be necessary for a significant share of the Phase II reviews to be conducted on-site at HPD. We believe it would be more efficient and economical

⁵ This figure regarding the total number of trace cases during the period does not include the 3,905 arson cases analyzed by the Crime Lab, which have been excluded from our sampling because a review of arson cases is not referenced in the RFP and because arson cases are not currently handled by the Crime Lab.

⁶ This figure for the total number of controlled substances cases excludes the cases analyzed by Mr. Patel and Mr. Price, which have been sampled for separately.

to conduct as many of the case reviews as possible offsite – at the laboratories and offices where our forensic scientists do their work. We already exploring ways to accomplish this in consultation with our forensic scientists. We also have developed, based on the limited case reviews and consultation with PwC, certain considerations specific to each of the above areas that we factored into our sample size selections. These specific considerations are discussed below.

DNA/Serology

As discussed in our Phase I Report, our review of proficiency tests performed in the Serology Section prior to the establishment of DNA capabilities in 1991 found numerous errors in serological analyses. Also, the Lab's allegedly flawed serology work in the 1987 case involving George Rodriguez has been widely publicized. For these reasons, we determined that it is necessary to select a sample specifically targeting serology during the period 1987 through 1990, in addition to reviewing a separate sample of cases performed in the DNA/Serology Section from 1991 through 2002.

Based on the preliminary case reviews, our forensic scientists estimate that, on average, the review of each of the DNA and serology cases we select will take approximately two hours. Therefore, we estimate that the total time our forensic scientists will require to review all of the DNA and serology cases in our two samples is 1,388 hours.

Firearms

We have used a very conservative methodology for selecting the size of our sample of firearms cases because the work performed by the Firearms Section has been called into question publicly in a handful of cases. Based on the preliminary case reviews, we anticipate that the documentation in some of the early Firearms cases may be so minimal that the only effective way to review the forensic science work performed in such cases may be to re-examine the evidence, if it is still available. Our forensic scientists estimate that, on average, the review of each of the Firearms cases we select will take approximately a half-hour, for a total estimated time spent by our forensic scientists of 182 hours. Reviews involving the re-examination of evidence will require additional time.

Toxicology

In October 2003, Pauline Louie, the Criminalist IV supervisor over the Toxicology and Controlled Substances Sections, was found to have failed her competency test in toxicology. Even though she was a senior supervisor, Ms.

Louie had been performing toxicological analyses personally for a number of years. Accordingly, we have applied the same conservative sample size determination methodology to toxicology cases as we have to other sections in the Lab. As we select particular cases to be reviewed, we intend to weight the sample in favor of cases involving blood or urine drug analyses, as opposed to blood alcohol tests, in order to focus our toxicology case reviews on those analyses with greater potential for error.

Based on the preliminary case reviews, our forensic scientists estimate that, on average, the review of each of the toxicology cases we select will take approximately a half-hour. Therefore, we estimate that the total time our forensic scientists will require to review all of the toxicology cases in our sample is 155 hours.

Trace Evidence

Relative to other sections in the Lab, there are few trace evidence cases. As mentioned above, we have excluded arson cases from our sample selections. We have applied the same sample size determinations in the area of Trace as in other areas we are reviewing. Based on the preliminary case reviews, we estimate that each trace case will take on average approximately a half-hour to review, for a total estimated review time in this area of 71 hours.

Controlled Substances

Our sample size selection with respect to cases analyzed in the Controlled Substances Section generally is based on the same conservative parameters we have used with respect to other areas of the Lab. In response to the discussion contained in our Second Report related to drylabbing incidents involving Mr. Patel and Mr. Price, HPD has requested that we perform reviews specifically targeting cases performed by those two drug analysts. Accordingly, we have selected statistical samples of the cases assigned to each of those analysts using the same conservative sampling parameters applied to the Section as a whole. As our review proceeds and we gather additional information about the cases handled by the Controlled Substances Section, we may be able to devise a methodology by which we weight the sample selections towards certain substances in order to focus on techniques and analysis that may have presented significant challenges for analysts in the Section. Based on the preliminary case reviews, we estimate that each controlled substances case will take approximately one half hour to review, for a total estimated review time in this area of 546 hours.

Questioned Documents

In light of the small volume of questioned documents cases performed by HPD since 1998 – only approximately 200 – and the fact that HPD currently has only one questioned documents examiner, we believe it is appropriate to review all questioned document cases analyzed by the HPD during the relevant time period. We estimate that the average time to review each of these cases will be 45 minutes, for a total estimated review time of 150 hours.

The total time we estimate our experts will require to complete all of the case reviews in our sample is 2,492 hours. This time includes solely the time that will be spent by the first-line case reviewers and does not include the time that will be spent by the Team Coordinator, members of the Scientific Advisory Board, and other members of our forensic science team in conducting quality control and quality assurance relating to the case reviews.

In order to ensure that the cases are reviewed in a consistent manner with reference to the appropriate standards, and to facilitate our processing of the information obtained through the case reviews, during the first weeks of Phase II we will be working with our forensic science experts to develop review forms and templates for use in the case reviews. Separate templates will be tailored to the individual disciplines in order to take into account the analytical techniques and technologies used in each discipline and to reflect the standard operating procedures and generally accepted forensic science practices in effect at the time the case was originally performed. Although the development of these templates and forms will require significant effort from our team, we anticipate that their use will result in a much more efficient, reliable and informative case review process.

An important aspect of our approach to these case reviews is flexibility. We have used a very conservative sampling methodology in arriving at the sample populations described above. As we gather data about the Lab's performance, however, we will be able adjust our case selections to take into account information we have learned about the cases performed in each of the disciplines we are reviewing. After reviewing approximately a quarter of each of the samples, we will be in a position to re-assess and adjust the samples or case selections as may be appropriate. This flexible process will permit us to direct our attention towards those types of cases that provide the best insight into the quality of the work performed in the Crime Lab over time. It also will allow us to consider and adjust to any unanticipated difficulties, in terms of for example

logistics or the state of documentation in the case files, we may encounter during the course of the reviews.

Intensive Case Reviews

In addition to reviewing the cases selected pursuant to our sampling methodology, we will perform intensive case reviews of approximately a half dozen cases handled by the Lab. These intensive reviews will include, among other things, a thorough assessment of the work performed by the Lab; interviews with key persons involved in the case, including the Lab analysts, prosecutors, defense counsel and experts, and the defendant; review of trial and hearing transcripts and judicial opinions.

A number of factors are involved in our selection of the cases for these intensive reviews. Among other things, we will consider the public interest in the case, the Section of the Crime Lab responsible for the analysis, and the substantive issues implicated by the case. We already have determined that we will perform intensive reviews of the cases related to the following four defendants: Josiah Sutton, George Rodriguez, Nanon Williams, and Lawrence Napper. The remaining selections will be made as our case reviews proceed and we learn more about the cases performed by the Lab.

Other Investigative Activity

During Phase I, we have made substantial and rapid progress in our factual investigation of issues related to the operations and management of the Crime Lab – more than we anticipated we would have made by this point. There remains additional investigative work to be done, including interviews with certain current and former personnel with whom we have not yet had the opportunity to meet, and follow-up interviews with certain witnesses as we resolve open issues that remain in the factual accounts we are developing. Near the conclusion of our factual investigation, we anticipate conducting full-length, transcribed interviews with approximately ten of the people central to the issues related to the Crime Lab and Property Room. The purpose of these transcribed interviews is to ensure that there is a final, accurate record of these persons' recollections across the relevant areas. We also will be continuing assimilation and synthesis of the substantial documentary record. Our Plan for Phase II also takes into account, as it must, the potential that new issues will come to our attention that will require exploration.

Finally, during Phase II, we will issue reports on a quarterly basis to advise the City, HPD, the Stakeholders Committee, and the public of the preliminary findings of our case reviews and the additional facts we have developed. At the end of our investigation, we will prepare and issue a detailed, comprehensive report stating our final conclusions based on all aspects of the investigation, including interviews and the review of the documentary record, the general case reviews, and the intensive review of certain select cases.



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