

NOVA SCOTIA MEDICAL EXAMINER SERVICE

# A Report Concerning the Death of Clayton Miller

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**April 10, 2015**

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## **EXECUTIVE SUMMARY**

The Honourable Lena Metlege Diab, Attorney General and Minister of Justice, forwarded a report to me authored by Ms. Kathleen A. Dwyer, B.Sc., R.N. This report pertains to the death of Clayton Miller. In her report, Ms. Dwyer makes a number of allegations regarding this case. The Minister asked me to make a determination of whether or not Ms. Dwyer's report contains information that may justify the re-opening of the investigation into this death. I have considered Ms. Dwyer's opinion, and I have examined the investigative materials that exist in this case. I conclude that:

1. There is no proof that Clayton Miller died by violence.
2. There is no proof that Clayton Miller's body was moved after his death.
3. The time of Clayton Miller's death cannot be ascertained reliably with current methods.
4. I agree with Drs. Glasgow, Butt, and Baden, in that the cause of Clayton Miller's death is most probably a combination of the effects of exposure to cold environmental conditions and alcohol intoxication.
5. Ms. Dwyer does not present new information in the death of Clayton Miller, and does not present a novel or scientifically valid interpretation of the existing information in this case file.
6. I recommend that this case remain closed.

## INTRODUCTION

On Friday, May 4, 1990, 17-year-old Clayton Miller attended an outdoor party in the vicinity of the Colliery Lands Park in New Waterford, Nova Scotia. He was seen consuming alcoholic beverages that night, and was reported to be intoxicated. Police responded to the location of the party because of suspicions that some young people may have been in violation of the *Liquor Control Act*. Upon arrival of the police, many of the partygoers, including Clayton Miller, fled the location. When he did not arrive home, he was reported missing.

Clayton Miller's body was discovered on Sunday, May 6, 1990, prone (i.e., face down), and lying partly in a shallow brook. An investigation of the death yielded conflicting opinions regarding the cause of death, but the police and medical examiner's investigations did not conclude that he had died as the result of violence.

Broad dissatisfaction on the part of the community with these results prompted a judicial inquiry in 1990 and a second autopsy in 1993. The quality of the police investigation was also specifically evaluated.

In September of last year, Minister Diab received a report from Ms. Kathleen Dwyer entitled "Clayton Miller Autopsy review of 1<sup>st</sup> and 2<sup>nd</sup> Autopsies Examination of photos using 1 photo". In it, Ms. Dwyer makes a number of specific allegations about Clayton Miller's death. The Minister asked me to evaluate this report and to make a recommendation as to whether or not further investigative action ought to be undertaken. The Minister's letter composes Appendix A of this report. Ms. Dwyer's report composes Appendix B of this report.

In assessing Ms. Dwyer's opinion, my analysis has focused on the following two related questions:

1. Does Ms. Dwyer's opinion offer credible new information pertaining to the death of Clayton Miller?
2. Does Ms. Dwyer offer a novel and valid interpretation of any of the existing information in this case?

In order to give a full treatment of these issues, I have found it necessary to review all of the investigative material available to me, and to formulate my own opinion on the cause and manner of Clayton Miller's death. An opinion regarding the quality of previous police investigations, procedures, and conclusions is outside of the scope of this report.



## LIMITATIONS OF THIS REPORT

As a forensic pathologist, my training and experience resides predominantly in medicolegal death investigation, and this is the point of view from which I have undertaken this review: I wish to reiterate that an evaluation of matters of police procedure is outside of my purview.

This analysis is limited to some degree by the state of forensic science, a limitation that is often left unstated in this type of report. However, since the audience of this report may include members of the general public, I think it is useful to begin with the acknowledgement that forensic science does not have the power to refute all possible theories and scenarios. Because of this, investigators do not start an investigation from the premise that all deaths are suspicious until proven otherwise: this is an untenable position to take. Instead, we evaluate and assimilate all available data and observations, and formulate opinions that best accommodate the totality of the evidence. The burden of proof that is required in this kind of work is best phrased as "to a reasonable degree of medical certainty", and not "beyond a reasonable doubt."

This analysis is a retrospective review of investigative records, rather than a primary death investigation. This kind of exercise has inherent weaknesses, mainly relating to the nature of the record itself. I have not directly examined Clayton Miller's body, nor do I believe that exhuming his body would offer useful additional information at this point.

The strength of this report is that I appear to have had more complete access to the investigative record than any previous physician reviewer. Importantly, I have had the privilege of working in parallel with Ron MacDonald and the Serious Incident Response Team (SIRT).

## DATA

In composing this report, I was granted prompt access to every document that I requested and a large number of documents that I did not specifically request, but were disclosed by the Department of Justice, the Cape Breton Regional Police, the Royal Canadian Mounted Police, and the Miller family. I reviewed the material supplied to me, but I believe that the following documents are the most pertinent ones, and the ones upon which I have relied most heavily. I have chosen to append the most essential documents to this report.

From the Department of Justice and Medical Examiner Service files:

1. A document titled "Report of Medical Examiner", signed by Joseph A. Roach, MD, and dated June 27, 1990. This document composes Appendix C of this report.
2. A two-page document titled "Preliminary Report", signed by Dr. Ikejiani, and not dated.
3. Dr. Ikejiani's original autopsy report, dated June 6, 1990. This document composes Appendix D of this report. This includes:
  - a. A document titled "Forensic Laboratory Report", signed by W. Westenbrink, and dated May 10, 1990.
  - b. A document titled "Toxicology Assay", signed by E. Susnik and A. Fraser, and dated May 31, 1990.
4. Histology slides generated during the course of Dr. Ikejiani's autopsy.
5. A number of colour photographs that depict the body before the first autopsy. These are reproduced and compose Appendix E of this report.
6. A number of colour photographs of the death scene.
7. A two-page document signed by W. Westenbrink, and dated April 4, 1991. The document appears to be directed to R.J. Barnes.
8. An untitled RCMP document authored by Cpl. D. MacQueen, and dated May 8, 1990.
9. A letter to Dr. Ikejiani, signed by Dr. G.M. Fraser, and dated June 7, 1990.
10. A three-page letter to Staff Sgt. R. Barnes, signed by Dr. R. Perry, and dated March 19, 1991.

11. A document titled "News Release", issued by the RCMP, and dated May 14, 1991. The spokesperson is given as Sgt. Gary Grant.
12. A three-page letter to Staff Sgt. Robert Barnes, signed by Dr. Ikejiani, and dated November 29, 1991.
13. A two-page letter to Dr. Dan Glasgow, signed by Staff Sgt. Barnes, and dated November 13, 1991.
14. A four-page document titled "Note to File", signed by Superintendent Furey. The date of this document is partly obscured at the edge of the photocopy, and is "91-12". The document itself refers to a meeting held on December 3, 1991.
15. A four-page letter to OIC Criminal Operations, signed by R.J. Barnes, and dated September 24, 1991.
16. A document titled "Pathology Consultation report", signed by Dr. D. Janigan, and dated August 26, 1992.
17. A letter to Dr. B.J. Bergman, signed by Dr. R. Perry, and dated September 24, 1992.
18. The report of the second autopsy, authored by Dr. J. Butt. It has a cover letter directed to Wayne Cochrane, and it is dated February 9, 1994. The report has 19 consecutively numbered pages, excluding the Table of Contents and the three Appendices (numbered A, B, and C). This document, including its appendices, compose Appendix F of this report.
19. A document titled "Reautopsy Report", signed by Dr. Michael Baden, and dated May 17, 1994. This document composes Appendix G of this report.
20. A document titled "Press Release", issued by Physical Evidence Consultants, and dated May 19, 1994. [REDACTED] is given as the contact.
21. Two copies of a letter addressed "Dear Minister", signed by [REDACTED], and dated December 28, 1998. One copy of this letter is stapled to document 22. (I think it is clear from the context that the Minister must be Nova Scotia's Minister of Justice at that time.)
22. A three-page letter to [REDACTED], signed by Dr. Louis S. Roh, and dated December 15, 1998.

23. A three-page letter to Ms. Nadine Cooper Mont, signed by Superintendent Furey, and dated May 7, 1991.
24. A document that is received in five volumes and is composed of:
  - a. 131 pages of testimony from the first day (September 13, 1990) of the Fatality Inquiry led by Judge Randall.
  - b. 156 pages of testimony from the second day (September 14, 1990) of the Fatality Inquiry led by Judge Randall.
  - c. 97 pages of testimony from the third day (November 2, 1990) of the Fatality Inquiry led by Judge Randall.
  - d. The seven page report of the Fatality Inquiry signed by Judge Randall and dated November 21, 1990.
25. Clayton Miller's medical record.
26. Records of the McGillivray Funeral Home that pertain to Clayton Miller. This includes an authorization to exhume Clayton Miller's body, signed by William Gillis.
27. Minutes of a meeting that occurred on July 13, 1993. The attendees were: Mr. Gervaise Miller, Premier John Savage, [REDACTED], the Hon. William Gillis, Mr. Bill MacDonald, Mr. Gordon Gillis, and [REDACTED].
28. A document titled "Chairman's Final Report After Review", authored by the RCMP Public Complaints Commission, signed by Jean-Pierre Beaulne, and dated June 15, 1993.
29. The investigative report of [REDACTED], dated August 2, 1991. This report has 20 pages.
30. A letter to Dr. R. Perry, signed by Dr. Ikejiani, and dated January 6, 1994.
31. A letter to Dr. J. Butt, signed by Dr. R. Perry, and dated January 6, 1994.
32. A nineteen-page document that is composed of a document titled "In the Matter of a Complaint by Gervaise Miller Against New Waterford Chief of Police Doug Crowe, Sergeant Tom Dwyer and Constable Michael Cecchetto" and its appendices and a covering letter. The author of this report is [REDACTED] and it is dated December 3, 1990.



The entire contents of the Cape Breton Regional Police file on this matter (# 90-267-0). I inspected all of the documents in this file, but many of these are duplicates of documents that I have already mentioned or are not informative. These are the pertinent documents:

33. Statement of Gerald Richard Coady, dated May 7, 1990, taken by T. Dwyer (folder 100).
34. Statement of [REDACTED] (folder 101).
35. Statements of Dale Francis MacKinnon (folder 102).
36. Statement of [REDACTED] (folder 103).
37. Statement of Gervaise Miller (folder 104).
38. Statement of [REDACTED] (folder 108).
39. A single-page report titled "Forensic Laboratory Report", authored by S.F. Lamb, and dated May 14, 1990 (folder 109).
40. Statement of [REDACTED] (folder 111).
41. A single-page letter to the New Waterford Police department, signed by Dr. John Stevens, and dated May 25, 1990. This letter is in folder 116, which also contains other documents that I have already mentioned.
42. A two-page letter to the attention of Sgt. Thomas Dwyer at the Office of Chief of Police, New Waterford, signed by [REDACTED], and dated August 29, 1990 (folder 117).
43. A three-page document titled "Discovery of Clayton Miller's Body", signed by Sgt. Thomas Dwyer and not dated, but appears to have been written before the final autopsy report was received. This folder contains a number of other documents, including maps of the area (folder 300).
44. A two-page document that is untitled, signed by Cst. Wayne Crowe, and dated May 6, 1990 (folder 301).
45. A two-page document titled "Report on the night of 04-05-90", signed by Cst. Neil Mackenzie, and dated May 6, 1990 (folder 302).
46. A five-page document titled "Re: Police Raid Nest Area (Clayton Miller's death)", which is a transcript of Cst. Paul Muise's handwritten notes, dated May 4, 1990 (folder 303).



47. A two-page typewritten document that is untitled, signed by Cst. Drinovz, and contains entries from Friday, May 4, Saturday, May 5, and Monday, May 7, 1990 (folder 305).
48. Copies of the entries in the Police Log Book on pages 66 through 91 inclusive (folder 402).
49. A video recording of an interview with Dale MacKinnon.
50. A video of the death scene, recorded on May 6, 1990, at approximately 1430.

The file of the Royal Canadian Mounted Police pertaining to the death of Clayton Miller. This file contains a number of images, both original and digital format, a considerable number of paper documents, and 17 030 pages of documents received in three PDF-format digital files. As may be expected, this file includes many of the documents already inventoried here. The file includes thousands of investigative notes, which are too numerous to be catalogued here. The pertinent additional documents are as follows:

51. A four-page letter authored by Robert S. Harrison, addressed to Mr. Gervaise Miller and [REDACTED], and dated February 2, 1999.
52. An eleven-page collection of pages labeled "Continuation report", all dated between February 15 and 19, 2001, and pertaining to the matter of the missing ambulance, and the burned Corvette. These pages are signed illegibly, but appear to be [REDACTED].
53. A two-page document titled "Investigation Report", authored by Cpl. B.A. Richardson and Sgt K.J. Taker, and dated 2007-07-30. The subject of this report is [REDACTED].
54. A four-page document titled "Investigation Report", authored by Cpl. B.A. Richardson and Sgt K.J. Taker, and dated 2007-04-03. The subjects of this report are [REDACTED]. This document has two appendices totalling fourteen pages: Appendix A is [REDACTED] statement and Appendix B is [REDACTED] statement.
55. Statement of [REDACTED], dated August 2, 1990, and witnessed by [REDACTED].
56. Statement of [REDACTED], dated August 9, 1990, taken by R.D. MacQueen.
57. Statement of [REDACTED], dated August 20, 1990, taken by D.R. Young.
58. Statement of [REDACTED], dated August 20, 1990, taken by D.R. Young.
59. Statement of [REDACTED], dated August 20, 1990, taken by D.R. Young.

60. Statement of [REDACTED], dated August 20, 1990, taken by D.R. Young.
61. A letter authored by [REDACTED], Officer in Charge, Sydney Weather Office, addressed to Sgt. Thomas Dwyer, and dated August 21, 1990. This letter describes the weather conditions for May 4, 5 and 6, 1990.
62. Statement of [REDACTED], dated February 19, 1991, taken by R.J. Barnes.
63. Statement of [REDACTED], dated February 19, 1991, taken by R.J. Barnes.
64. Statement of [REDACTED], dated February 19, 1991, taken by R.J. Barnes.
65. Statement of [REDACTED], dated February 19, 1991, taken by R.J. Barnes.
66. Statement of [REDACTED], dated February 19, 1991, taken by R.J. Barnes.
67. Statement of Gerald Richard Coady, dated March 8, 1991, taken by R.J. Barnes.
68. Statement of [REDACTED], dated March 10, 1991, taken by R.J. Barnes.
69. Statement of Francis Dale MacKinnon, dated March 10, 1991, taken by G. Taker.
70. Statement of [REDACTED], dated March 10, 1991, taken by R.J. Barnes.
71. Statement of Gerald Richard Coady, dated March 10, 1991, taken by M.F. Soucie.
72. Statement of Gerald Richard Coady, dated March 10, 1991, taken by G.W. Taker.
73. Statement of Baxter Thorne, dated March 11, 1991, taken by R.J. Barnes.
74. Statement of [REDACTED], dated April 3, 1991, taken by R.J. Barnes.
75. Statement of [REDACTED], dated April 3 1991, taken by G. Taker.
76. Statement of [REDACTED], dated April 3, 1991, taken by R.J. Barnes.
77. Statement of [REDACTED], dated April 4, 1991, taken by R.J. Barnes.
78. Statement of [REDACTED], dated April 4, 1991, taken by G. Taker.
79. Statement of [REDACTED], dated April 4, 1991, taken by R.J. Barnes.
80. Statement of [REDACTED], dated April 4, 1991, taken by G. Taker.
81. Statement of [REDACTED], dated April 4, 1991, taken by R.J. Barnes.

82. Statement of [REDACTED], dated April 4, 1991, taken by R.J. Barnes.
83. Statement of [REDACTED], dated April 5, 1991, taken by R.J. Barnes.
84. Statement of [REDACTED], dated April 8, 1991, taken by G. Taker.
85. Statement of [REDACTED], dated April 9, 1991, taken by R.J. Barnes.
86. Second statement of [REDACTED], dated April 9, 1991, taken by R.J. Barnes.
87. Statement of [REDACTED], dated April 11, 1991, taken by R.J. Barnes.
88. Statement of [REDACTED], dated April 11, 1991, taken by R.J. Barnes.
89. Statement of [REDACTED], dated April 11, 1991, taken by R.J. Barnes.

The contents of the Miller family file on this matter, kindly supplied to Ron MacDonald and me by [REDACTED]. This file contains many documents already inventoried, and many documents that do not directly relate to the investigation. The additional pertinent documents are as follows:

90. Affidavit of [REDACTED], dated August 8, 2001.
91. Handwritten statement of [REDACTED], dated June 11, 1991. This statement has four pages, and appears to relate to the events of May 4, 1990.
92. Handwritten statement of [REDACTED], dated June 9, 1991.
93. Handwritten statement of [REDACTED], dated June 10, 1991.
94. Handwritten statement of [REDACTED], undated.
95. Handwritten statement of [REDACTED], dated June 18, 1991.
96. Handwritten statement of [REDACTED], dated June 19, 1991.
97. Handwritten statement of [REDACTED], undated.
98. Handwritten statement of [REDACTED], dated June 18, 1991.
99. Affidavit of [REDACTED], dated January 25, 2007.
100. Handwritten statement of [REDACTED], dated June 9, 1991.
101. Handwritten statement of [REDACTED], dated June 9, 1991.

102. Handwritten statement of [REDACTED], dated November 30, 1990.
103. Handwritten and redacted statement of [REDACTED], dated November 10, 1990.
104. Handwritten statement of [REDACTED], dated November 13, 1990.
105. Handwritten statement of [REDACTED], undated.
106. Affidavit of Baxter Thorne, dated October 17, 2000.
107. Handwritten statement of [REDACTED], undated.
108. Handwritten statement of [REDACTED], undated.
109. Affidavit of [REDACTED], dated July, 2000.
110. Handwritten statement of [REDACTED], dated June 11, 1991. This statement has two pages and relates to the events of May 6, 1990.
111. Handwritten statement of [REDACTED], dated June 11, 1991.
112. Handwritten statement of [REDACTED], dated June 18, 1991.
113. Affidavit of [REDACTED], dated January 25, 2007.
114. Handwritten statement of [REDACTED], dated June 10, 1991.
115. Statement of [REDACTED], dated June 10, 1991.
116. Handwritten statement of [REDACTED], dated May 10, 1991.
117. Handwritten statement of [REDACTED], undated.
118. Handwritten statement of [REDACTED], undated.
119. Handwritten statement of [REDACTED], undated. This is a one-page document, and it is a different document from that described in 108, above.
120. Handwritten statement of [REDACTED], undated. This is a one-page document, and refers to the events of May 8, 1990.
121. Affidavit of [REDACTED], dated July 24, 2002.
122. Affidavit of [REDACTED], dated June 16, 2006.



123. Affidavit of [REDACTED], dated December, 2000.
124. Handwritten statement of [REDACTED], dated August 20, 1996.
125. Statement of [REDACTED], dated January 25, 2012.
126. Statement of [REDACTED], dated January 25, 2012.
127. Statement of [REDACTED], dated June 2002.
128. Affidavit of Gervaise Miller, dated July 2002.
129. Affidavit of Maureen Miller, dated July 2002.
130. A second affidavit sworn by Maureen Miller, dated July 2002.
131. Transcript of tape 1A, conversation between [REDACTED] and Gervaise Miller
132. Transcript of tape 1C, miscellaneous conversations involving numerous individuals, notably Russell MacLellan, Wayne Crowe, Ed McNeil, and Staff Sergeant Diamond.
133. Transcript of tape 1F, including conversations with Dr. Roach and Dr. Ikejiani.
134. Transcript of tape 1H, including conversations with Superintendent Furey and [REDACTED].
135. Transcript of tape 1I, including conversations with [REDACTED].
136. Transcript of tape 1J, including conversations with Dr. Roach, Dr. Ikejiani and [REDACTED].
137. Transcript of tape 1L, including a conversation between Gervaise Miller and [REDACTED].
138. Transcript of tape 1O, including a conversation between Maureen Miller and Ed MacNeill
139. Transcript of tape 1Q, including a conversation between Gervaise Miller, and two women named [REDACTED].
140. Transcript of tape 1R, including the statement of an anonymous woman who claims to have been beaten by police.



141. Transcript of tape 1S, including a conversation between Maureen Miller and Gerald Coady.
142. Transcript of tape 1U, including a conversation between Gervaise Miller, [REDACTED] and some others.
143. Transcript of tape 1V. This is a continuation of tape 1U.
144. Transcript of tape 1W, including a conversation between Gervaise Miller and [REDACTED].
145. Transcript of tape 1X, including a conversation between Maureen Miller and [REDACTED] parents.
146. Transcript of tape 1Z, including a conversation between Gervaise Miller and Baxter Thorne.
147. Transcript of tape 2B. This tape contains a conversation between Ed McNeill and Maureen Miller. This tape has poor sound quality.
148. Transcript of tape 2E. This tape contains conversations between Gervaise Miller and [REDACTED], Superintendent Timko, and [REDACTED].
149. Transcript of tape 2F. This tape contains a conversation between Gervaise Miller and [REDACTED].
150. Transcript of tape 2G. This tape contains a conversation between Gervaise Miller and [REDACTED].
151. Transcript of tape 3A. This tape contains a conversation between Gervaise Miller and [REDACTED], and a conversation between Gervaise Miller and [REDACTED].
152. Transcript of tape 3B. This tape contains a conversation between Gervaise Miller and [REDACTED].
153. Transcript of tape 3C. This tape contains a conversation between Gervaise Miller and [REDACTED], an insurance investigator.
154. Transcript of tape 3E. This tape contains a conversation between Gervaise Miller and [REDACTED].

155. Transcript of tape 3G. This tape contains a conversation between Gervaise Miller and [REDACTED], an insurance investigator.
156. Transcript of tape 3H. This tape contains a conversation between Gervaise Miller and [REDACTED].
157. Transcript of tape 3I. This tape contains a conversation between Gervaise Miller and Chief Doug Crowe, Deputy Chief Brain White and Sgt. Peter MacIsaac.
158. Transcript of tape 3L. This tape contains a conversation between Gervaise Miller and Dr. Joseph Roach on January 17, 1993.
159. A document titled "Ed's Notes (Personal)". This document is received electronically as a PDF-format file, and has 32 pages.
160. A document titled "Ed's notes". This document is received electronically as a PDF-format file, and has 32 pages. It appears to be a duplicate of the document described in 156 above.
161. Nineteen colour photographs, received in PDF-format. These are images that show Clayton Miller before autopsy, but they are of poor quality.
162. An electronic document titled "Book\_1.PDF". This document has 137 pages and includes many documents already inventoried here, but also includes some of Clayton Miller's medical records, and the transcript of [REDACTED] hypnotized statement.
163. An electronic document titled "Book\_2a.pdf". This document has 119 pages and includes many documents already inventoried here, but also includes handwritten statements of [REDACTED] (dated June 15, 1991) and [REDACTED] (dated June 18, 1991).
164. An electronic document titled "Book\_2b.pdf". This document has 116 pages and includes many documents already inventoried here.
165. An electronic document titled "Book\_3.pdf". This document has 69 pages and consists mostly of miscellaneous correspondence between the Miller family and various individuals and organizations.
166. An electronic document titled "Book\_4a.pdf". This document has 107 pages and consists mostly of miscellaneous correspondence between the Miller family and various individuals and organizations.

167. An electronic document titled "Book\_4b.pdf". This document has 112 pages and consists mostly of miscellaneous correspondence between the Miller family and various individuals and organizations. It includes a transcript of a conversation between Mr. Miller and Dr. Roach that took place on January 17, 1993.
168. An electronic document titled "Book\_5a.pdf". This document has 154 pages and consists mostly of miscellaneous correspondence between the Miller family and various individuals and organizations.
169. An electronic document titled "Book\_5b.pdf". This document has 82 pages and consists mostly of miscellaneous correspondence between the Miller family and various individuals and organizations.
170. An electronic document titled "Book\_6.pdf". This document has 82 pages and consists mostly of miscellaneous correspondence between the Miller family and various individuals and organizations. It includes a transcript of a conversation between Mr. Miller and [REDACTED] that took place on October 5, 1995, and a transcript of a conversation between [REDACTED] and [REDACTED] that took place October 8, 1995.
171. An electronic document titled "Book\_7.pdf". This document has 72 pages and consists mostly of miscellaneous correspondence between the Miller family and various individuals and organizations.
172. An electronic document titled "Book\_8.pdf". This document has 46 pages and consists mostly of miscellaneous correspondence between the Miller family and various individuals and organizations, most notably the College of Physicians and Surgeons of Nova Scotia.
173. An electronic document titled "Book\_9.pdf". This document has 35 pages and consists mostly of miscellaneous correspondence between the Miller family and various individuals and organizations.
174. An electronic document titled "Book\_10.pdf". This document has 51 pages and consists mostly of miscellaneous correspondence between the Miller family and various individuals and organizations

In my opinion, this list composes a reasonably complete set of investigative documents. Like Drs. Butt and Baden, I chose to visit the death scene. I found this exercise useful, in that I was

able to get a better sense of the scale of the scene, and in particular the nature of the brook and its embankment.

As I have stated, the resources that I had access to is not limited to these items. I also had access to a number of other documents such as copies of correspondence, invoices, fax confirmations, media clippings, and other documents of an administrative nature. None of these documents offer meaningful information about this case, and I will not inventory them here or consider them further.



## CASE SUMMARY

The following case summary is a synthesis of all of the data that are available to me. This summary was composed in order to help the reader understand my opinion, and is not meant to replace the source documents.

On the evening of May 4, 1990, Clayton Miller had supper with his parents, Gervaise and Maureen Miller, at approximately 6:00 pm. Afterward, he went to the MacKinnon residence with his friends Dale MacKinnon and [REDACTED], where Dale MacKinnon took a quantity of liquor belonging to [REDACTED]. Accounts differ on the nature of the liquor: some accounts indicate that the liquor may have been rum, and others say that it was moonshine. The young men consumed the liquor, estimated to be about half of a 40-ounce bottle, in the space of approximately 30 minutes. Clayton Miller and Dale MacKinnon decided to attend an outdoor party at approximately 8:00 pm, while [REDACTED] decided not to attend.

The outdoor party was located at a place locally known as "the Nest", which is a large open area in Colliery Lands Park on the outskirts of New Waterford. Accounts of the party vary somewhat, but between 25 and 70 young people were at the Nest. Clayton Miller was thought to be intoxicated to a significant degree: Dale MacKinnon states that he was drunk, staggering, and feeling unwell, a portrayal that agrees well with other witness narratives. [REDACTED] saw Clayton Miller later in the evening and reports that he was so drunk that he was "almost at the stage of passing out."

At around 9:00 pm, off-duty Constable Drinovz of the New Waterford Police Department became aware of the party in progress and happened upon two other constables immediately thereafter. In response to this interaction and two public complaints that are recorded in the police log book, the police decided to make a patrol to the party.

The majority of the young people at the Nest scattered upon the arrival of police officers. Ten individuals were apprehended, five of whom were charged with various minor offenses. According to civilian witnesses, the entire police action took about thirty minutes, and none of these witnesses recall seeing police return to the Nest. No witnesses place Clayton Miller in the police van, and his name is not recorded in the Police Log Book as having been apprehended. [REDACTED] states that she saw Clayton Miller running along the embankment during the confusing time when the police were scattering the party, and she states that he was asking others if they had seen his cap. [REDACTED] remembers Clayton Miller making the statement "I'm going this way", but little else.



During the very early morning hours of May 5, Clayton Miller's parents made a number of attempts to ascertain their son's whereabouts. In particular, Clayton Miller's father called police, and was told that his son was not among those young people who were apprehended at the Nest that night. This interaction is not recorded in the police log book. Mr. Miller spent most of the day Saturday searching unsuccessfully for his son. On Saturday afternoon, Baxter Thorne and Gerald Coady are alleged to have been in the vicinity of the place where Clayton Miller's body was later discovered, reportedly with the objective of retrieving alcoholic beverages left there the previous night. Some people with familiarity with this case attach great significance to the fact that neither man discovered Clayton Miller's body, a topic that will be considered later in this report.

When Clayton Miller had not returned home by the evening of Saturday, May 5, his mother reported him missing to police at approximately 6:20 pm. She agreed to drop off a picture of her son, and this was distributed to a patrol car.

On Sunday, May 6, Maureen Miller telephoned Dale MacKinnon, and shared with him her worry that something had happened to her son. Shortly thereafter, Dale MacKinnon arranged to meet [REDACTED] to search for Clayton Miller. At approximately 1:30 pm [REDACTED] and Dale MacKinnon discovered his body in a brook close to the location of the party. The position in which the body was found is of critical importance, and will be considered in detail later in this report. The two friends went back to the [REDACTED] residence, where they alerted [REDACTED]. The police and other members of the community were called. According to the police log book, [REDACTED] notified them of the death at 1:55 pm. She then went to Gervaise Miller's workplace to alert him to the discovery of his son's body.

Sgt. Dwyer's account depicts an emotional scene:

I ran up the bank and I was met by both Mr. and Mrs. Miller. I tried to restrain Mr. Miller but he was in a rage and got by both me and MacNeil. He slid down the bank with me behind him and ran over and pulled his son out of the brook and held him in his arms. I tried to separate him and his son and all three of us were rolling around. I then got up and put my rain coat on the father and son.

Clayton Miller's body was removed from the scene and transported to the New Waterford Consolidated Hospital. The first physician to see him was Dr. John Stevens, who was on call at the Out-patient Department that afternoon. The sole product of his examination appears to be a letter addressed to the New Waterford Police Department. This report describes an x-ray taken of Clayton Miller's skull, which was reported as "grossly normal". The x-ray of the chest demonstrated pulmonary congestion, an entirely non-specific finding that he nonetheless

interpreted as being compatible with drowning. He did not note any surface injuries except for "some very superficial linear black marks on his right cheek." His testimony at the Inquiry does not offer additional pertinent information.

Dr. Joseph Roach, the local medical examiner, was summoned and he performed an examination. His examination produced a report with the following anatomic findings:

When I saw him, he was face down, rigor mortis had set in. The left arm was straight and rotated behind his back. There was no other signs of injury. Parts of the body could not be moved due to the rigor mortis.

It is noteworthy that this report was filed on June 27 of that year, after Dr. Roach had access to the pathology report. Dr. Roach ordered an autopsy on Clayton Miller's body, and this was performed by Dr. Ikejiani on May 7, 1990. The pertinent positive findings at autopsy are:

1. Three small abrasions, described as being on the left posterior triangle of the neck
2. A 2.2 x 0.2 cm abrasion on the anterior right lower leg ["right leg (shin)"]
3. Emphysema, both lungs

The lungs are described in Dr. Ikejiani's report as follows:

**GROSS:**

**Pleural cavities:** The pleural cavities are smooth and moist. No adhesions or fluid is present.

**Lungs:** The right lung weighs 450 gm. And the left lung is 400 gm. Both lungs are grayish-white and the surface is smooth and subcrepitant.

**MICROSCOPIC:**

Sections from the lungs show emphysema. All the lobes of the lungs show emphysema.

The stomach contents are described as follows: "contains no partially digested fluid. Contains only mucoid like (small) material and smelt strongly of alcohol."

The pertinent negative findings at autopsy are:

1. No evidence of penetrating trauma
2. No evidence of any blunt injury that could be reasonably classified as life-threatening

### 3. No evidence of strangulation

Blood and urine were sent for toxicological analysis to the RCMP laboratory and to the Victoria General Hospital. Both reports agree that the blood alcohol was 120 mg/dl. The Victoria General Hospital laboratory found alcohol in urine at a concentration of 265 mg/dl.

Dr. Ikejiani's final opinion on the principal pathological diagnosis was "pulmonary emphysema". The cause of death statement on the medical examiner report authored by Dr. Roach was given as: "Combination of a fall, while possibly under the influence of alcohol, with the body winding up in a pool of water, which may have also attributed to his demise." The manner of death given by Dr. Roach was "violent", which is not one of the standard manners of death.

A judicial inquiry was convened into Clayton Miller's death, under Judge G.H. Randall. I will not summarize Judge Randall's report here, but the report appears to agree broadly with other accounts of the investigation. Of interest, Judge Randall's report provides an account of the debate about the cause of death: Drs. Roach and Ikejiani favoured "dry drowning". Dr. Glasgow offered the theory that Clayton died of exposure. In support of his opinion, Dr. Glasgow testified that the temperatures around that time were in the range of 2 degrees Celsius, and that Clayton Miller's clothing was wet. It is not known to me what Dr. Glasgow knew about the terminal position of the body, if anything. As Judge Randall is correct to note, Dr. Glasgow did not examine the body.

In the final paragraph of his report, Judge Randall does not advance an opinion on the cause of death, but states that "it is my opinion that there was no culpable negligence on the part of anybody which resulted in the death of Clayton Miller."

It is clear from the file that there was some degree of dissatisfaction with this determination, and eventually the Attorney General at the time, the Hon. Dr. John William Gillis, ordered the exhumation and second autopsy of Clayton Miller's body. This second autopsy was performed by Dr. John Butt on December 28, 1993, at the Glace Bay Community Hospital mortuary in the company of Dr. Michael Baden, a pathologist employed by the Miller family. The autopsy was photographed by police, and a number of x-rays were taken. The pertinent findings of Dr. Butt's second autopsy are:

1. Advanced changes of decomposition, in keeping with the post-mortem interval, but with relatively good preservation of the viscera (including the structures of the neck) due to embalming
2. No evidence of blunt injury of any kind. Specifically, there was no evidence of skull fracture, and no evidence of fractures of the ribs or long bones.



3. No evidence of bruising of the muscles of the anterior neck. These structures had been relatively well preserved, because they had been embalmed in the bag containing the viscera.
4. No evidence of hyoid bone fracture.
5. No pertinent positive findings on histology.
6. No evidence of diatoms in bone marrow.

The pertinent findings of Dr. Butt's review of investigative records (including the photographs) are:

1. No evidence of clinically significant injury.
2. A lividity pattern compatible with a prone position, such that the head was slightly above the legs.
3. A bruise on the lateral aspect of the left lower leg is visible in photographs, although Dr. Butt equivocates somewhat on this point.
4. A small bruise on the right cheek, again visible to Dr. Butt in photographs
5. A suggestion of the "washer-woman effect" on the skin of the right hand. (This is an observation that is sometimes seen in skin that has been allowed to remain in water.)
6. Debris on the surface of the body that, in his opinion, appears to match the nature of the material at the death scene.

Dr. Butt concludes that the cause of death is exposure (hypothermia), and in his narrative calls attention to the potential role of intoxication by alcohol. He offers the opinion that "*the deceased has neither killed himself nor been killed.*" [Emphasis by Dr. Butt.]

The other pathologist that was present at the second autopsy was Dr. Michael Baden, who had been hired by the Miller family. His conclusions about the cause of death agree with Dr. Butt's opinion. He states in his report:

It is my opinion that Clayton Miller did not die of pulmonary emphysema or of drowning as initially certified, but that his death was due to exposure to the cold and to consequent hypothermia which developed over a period of hours.

Although he agreed with Dr. Butt's opinion on cause of death, Dr. Baden raised the possibility that the body may have been moved after death. Naturally, this idea became the source of great controversy at the time, and continues to be a source of speculation to this day.

As is sometimes the case, rumours continued to abound in the community, a number of which were subsequently investigated. The following paragraph from the RCMP file exemplifies this unfortunate phenomenon:

At the start of this investigation, Maureen Miller had advised us that [REDACTED] told her that she heard from a neighbour who heard from someone else who heard that [REDACTED] had told his parents that he had killed Clayton Miller on the night in question.

A police investigation definitively refuted this allegation.

A few of the more controversial rumours and outright fabrications (and the police response) are summarized below. These are presented here firstly to demonstrate the complexity that this investigation has acquired, and secondly to highlight the abundance of false information that has circulated in the community about this case.

1. For some time, it was held that Clayton Miller had been treated by ambulance attendants that Friday night. This was investigated, and the claim was vigorously denied by the ambulance attendants. None of the witness accounts from the young people at the Nest mentions an ambulance, nor is there any evidence that one was deployed that night.
2. It had been held by some in the community that the ambulance that had been used to transport Clayton Miller's body on Sunday morning was mysteriously burned. On investigation, it is true that an ambulance was stolen and burned, but the people who actually performed the body removal are certain that the burned ambulance was not the one that was used to remove the body.
3. [REDACTED] told a story (reportedly under hypnosis) that she and Clayton Miller were beaten by police and taken from the Nest to an undisclosed location, where she tried to rescue him but was unsuccessful. This story was investigated extensively, and other witnesses can account for her every movement between approximately 7:00 pm and 1:00 am that night. Also, a prodigious effort at interviewing people who attended the party at the Nest that night failed to identify a single witness who could place her at the Nest with them. [REDACTED] recanted her story on April 9, 1991, and there is no objective evidence that any part of this story is true.



4. A civilian listening to a police scanner on the night of the party reportedly heard a police officer direct another police officer to return to the vicinity of the Nest to "go back and get that young fellow's sneaker". Some people have inferred from this that the owner of the sneaker was Clayton Miller and that the police must therefore have known his whereabouts that night. This is not so: a police officer was directed to retrieve a sneaker, but the owner of the sneaker was [REDACTED], another young person apprehended that night.
5. Two young women who were among those arrested on the night of May 4 have reported seeing a young male, alone, in one of the jail cells at the police station over a video feed. Some have inferred that this lone male must have been Clayton Miller, even though the young women themselves have never stated that explicitly. In my review of the file, it appears more likely that the witnesses saw one of two young men, [REDACTED]  
[REDACTED]  
[REDACTED].

It is also noteworthy that, over the course of the last two decades, a number of people in positions of authority and trust to the Miller family have opined that Clayton Miller was murdered, despite these individuals' clear lack of the requisite expertise and experience to proffer such an opinion. For example, one of Mr. Miller's physicians said this:

I have reviewed pieces of evidence which he has submitted to me including post-mortem reports, photographs. It is certainly clear to me that his son was murdered and did not die from natural causes.

Out of respect for Mr. Miller's privacy, the identity of this physician is not disclosed herein, but it is worth noting that this individual has no expertise in forensic pathology or medicolegal death investigation, and was ill-advised to have made this statement.

## **A RESPONSE TO THE DWYER REPORT**

Some time ago, the Minister of Justice received a report authored by Ms. Kathleen Dwyer. Additionally, I had the privilege of meeting with the Miller family, and at that meeting they gave me a folder of images generated by Ms. Dwyer. As I have stated, I will offer an analysis of this report by considering the two interrelated questions of whether or not she offers new information, and whether or not she offers a novel and valid interpretation of the existing information.

The major issues that Ms. Dwyer raises in her report pertain to the following:

1. Ms. Dwyer states that Clayton Miller suffered a blunt head injury. The objective basis for her opinion is her analysis of autopsy photographs. She raises a number of related questions as to the ultimate fate of Clayton Miller's brain.
2. Ms. Dwyer states that Clayton Miller suffered a number of other injuries that were not addressed by previous investigators. In particular, she assigns great significance to the fact that teeth were missing at the second autopsy, and that both of the elbows were reportedly dislocated.
3. Ms. Dwyer states that the time of Clayton Miller's death must have been sometime around 0100 Sunday, May 6, and that he was placed in the brook between 0400 and 0600.
4. Ms. Dwyer states that Clayton Miller's body must have been moved after his death. The objective basis for her opinion is an analysis of the pattern of livor mortis and rigor mortis described and depicted in photographs. As well, she makes reference to Dr. Baden's opinion on this subject.
5. Ms. Dwyer makes a number of general statements that cast doubt on the cause of death conclusions reached by Drs. Butt and Baden.

I will address these issues in order.

### **1. Did Clayton Miller suffer a head injury?**

Ms. Dwyer has this to say about Clayton Miller's head injury (page 6 of her report):

Clayton died a violent and slow death, likely from a blow to the head, as per laceration on Left Parietal area above the ear...

In support of this, she refers to a manipulated photographic image (labelled Photo 1 in her report) that depicts the back of a person's head, with the body on its right side, and with the shoulders on the left side of the picture. In the middle of the picture, there is a light-coloured area near the left parietal aspect of the scalp. She describes the photograph as follows (pages 6 and 7 of her report):

Seen here is an enlargement of the photo of Clayton's back, on the left side of his skull Parietal area. It is difficult to estimate the size of the wound without a marker or scale to measure by, but the injury is significant. Estimate, this wound is slightly above the ear, Parietal Lobe area, governs motor and sensory stimuli and control. The laceration likely large as an ear, or larger. The white part, in lower right hand corner of the laceration, is showing bone. Bruising is also noted at upper quadrant of laceration towards the frontal area; bluish/purplish in color on either side of laceration.

Later on page 10 of her report, Ms. Dwyer discusses the second autopsy:

However, the second Autopsy found no contusion on the skull, or fracture, however it should have been noticeable a slight indentation or abrasion on the skull bone at the position of the laceration on skull, given the force of a blow or injury it should have left some markings on the bones. However both Autopsies failed to mention the contusion/laceration on Claytons' skull, left side, as indicated in photo #1. This throws both Autopsies' in doubt. Regardless of how one wants to explain the laceration aforementioned, there is no explaining this away, the photo is proof.

Among the photographs I was able to obtain is one that appears to be the original from which Ms. Dwyer's picture is reproduced. This photograph clearly depicts Clayton Miller's left ear in the area where Ms. Dwyer posits that there is an injury. (For the reader's convenience, I have reproduced the original images in Appendix E.) In my opinion, no injury of the type that Ms. Dwyer describes is visible in the original photograph. Other photographs of the body yield additional clear views of this part of Clayton Miller's head, and no injury is visible in any of these images. Moreover, the reports and testimony of Drs. Stevens, Roach, Ikejiani, Butt and Baden indicate that no injury was observed at this location. I also note that x-rays taken before the first autopsy, and before the second autopsy do not show a skull fracture.

With respect to the possibility of brain injury Ms. Dwyer states (pages 10 and 11):

There can be no explaining away, how so many medical professionals handled this case, and failed to see the injuries Clayton suffered to his skull (*sic*). Given the presence of Neutrophils and congested intravascular spaces in the Brain establish this fact that some type of brain death/injury happened, that cannot be ruled out was caused by the



laceration on Clayton's skull. Neutrophils do not build in great number until 24 hours, which is also retarded due to the cold/hypothermia and not so prolific in Hypothermia as in brain injury, as kidney failure is the usual cause for death from Hypothermia.

Ms. Dwyer's contention that neutrophils were seen in histologic sections of the brain is incorrect. Dr. Curry's report observes "tremendous artefactual vacuolization involving both cellular elements and neuropil", and makes no mention at all of neutrophils. Neuropil is "the complex net of axonal, dendritic, and glial branchings that forms the bulk of the central nervous system gray matter of the brain and in which the nerve cell bodies are embedded."<sup>1</sup> Dr. Curry is thus referring to a normal, but somewhat decomposed constituent of Clayton Miller's brain. Dr. Curry's conclusion is that these findings are "more suggestive of a slow death such as would occur with hypothermia, rather than an acute death which you might expect to be associated with drowning."

In summary, Ms. Dwyer does not offer a compelling argument that Clayton Miller suffered a head injury.

With respect to related issue of the fate of Clayton Miller's brain, Ms. Dwyer has the following to say on page 7 of her report:

Also, list of embalmed viscera from Dr. Baden's summary of Re-autopsy Report, page 3, does not list the Brain among the preserved organs removed from Clayton's Casket. Therefore we do not know if the brain was removed during the first Autopsy as indicated and weighed, or whether random slices were taken from the top of the skull area, or whether the L parietal area under the contusion was examined, and cell sample taken of the area, and further dissected. It is impossible to explain the absence of the Brain.

The human brain is a delicate structure, and rapidly turns into a grey-green paste with decomposition. Drs. Butt and Baden examined Clayton Miller's remains more than three years after his death. Even allowing for the preservative effect of the embalming fluid, the brain was undoubtedly an unrecognizable, thick semi-fluid by the time of the examination in 1993. Dr. Butt describes remaining brain tissue within the skull this way in his report: "Some amorphous pasty substance was removed from the head, the remains of the brain."

## **2. Does Clayton Miller have injuries that are not recorded at either of the two autopsies?**

The issue of an injury of the head is considered in the preceding section.

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<sup>1</sup> The American Heritage Medical Dictionary Copyright 2007, 2004. Houghton Mifflin Company.



Ms. Dwyer has the following to say about Clayton Miller's injuries (page 8):

There are additional markings on both sides of his neck, noted on the left side, but not noted on right side, as seen bruising in photo#2 right side of neck, also the extensive bruising on his face is not from simply lividity, Clayton received some injury to his face either directly, or secondary from the blow to the back of the skull. The markings/bruising on the right side of the neck appear like pressure was applied, and the trailings/tailings ground in, these marks resemble finger marks.

And, later on page 8:

The facial bruising on Clayton's face and neck bilaterally need to be examined under ultraviolet light in a forensic photography lab.

And, on page 5:

See Photo #2 Massive bruising on face, Photo #1 :laceration skull L Parietal Lobe, and markings on L and right sides of neck, laceration R leg.

And, in the caption of Photo 2 on page 13:

Photo # 2 Blanching seen right side of face, bruising and possible lacerations right side of neck lower area up to below the area, three Very similar abrasions, lacerations, scratches, bruises. Bruising and swelling over frontal area, greater near middle over nose and under eyes, and forehead.

Ms. Dwyer makes the following comments about the elbows on page 28: "During the Autopsy #2, Dr. Butt discovered that Clayton's elbows dislocated bilaterally."

Ms. Dwyer explores the issue of the missing teeth on page 18:

Second Autopsy indicates Clayton was missing teeth, which teeth are not recorded, Clayton was not missing teeth, the Miller's stated and per dental records, comparison can be made, before and after. X-ray of Clayton's skull can be used to determine which teeth are missing.

I have had the opportunity to inspect the photographs taken in this case, and in my opinion, the "markings" noted by Ms. Dwyer in photographs actually represent areas of livor mortis, not injury. Her contention that there is evidence of assault ("appear like pressure was applied" and "these marks resemble finger marks") has no objective evidence.

I also note that Dr. Butt and Dr. Baden did not find, either at their examination, or on the review of the photographs, any evidence of soft tissue injury, especially of the neck. Dr. Baden says this about the evidence for neck injury:

There also was no autopsy finding to suggest that a choke hold had been applied which is strong evidence that neck compression hadn't occurred, but occasionally this can happen without producing changes that can be found at autopsy.

This opinion is especially significant because Dr. Baden was hired by the Miller family.

The issue of the misinterpretation of livor mortis is an important one. Livor mortis is the purple-red staining that is commonly seen on dead bodies that is the result of blood settling with gravity. Because it is a consequence of the action of gravity, it is located in the parts of the body closest to the ground. It is commonly mistaken for bruising by lay people, and this issue is almost certainly one of the most important causes of the Miller family's unease about this case.

With respect to the issue of the dislocated elbows, Ms. Dwyer's opinion appears to have its origin not in Dr. Butt's autopsy report but in the radiology report authored by Dr. R. MacDonald (who was engaged by Dr. Butt to examine the x-rays in this case), in which he says that "There is subluxation of the elbow joints bilaterally."

In my opinion, this finding is a consequence of the combined effects of decomposition and transportation of the body. Dr. Butt describes the arms this way in his report of the second autopsy:

In the lower legs and in virtually the whole of the arms, the remaining flesh was esterified (adipocere) creating a moderately firm waxy material replacing some of the skin and subcutaneous fat while much of the remaining muscle mass in the arms and legs was not visible. That muscle which remained in the arms was "pasty" and pink in color.

In short, Dr. Butt depicts severe changes of decomposition in the arms, a situation that would lend itself easily to artefactual dislocation of the elbows, even supposing that the transportation and manipulation of the remains was gentle.

The issue of missing teeth has a similar explanation. Again from Dr. Butt's report: "...a few teeth were missing, with the laxity of the teeth in the sockets (a post-mortem change) unquestionably the reason."

In summary, Ms. Dwyer does not offer new information with respect to Clayton Miller's injuries, and she does not offer a scientifically defensible analysis of the existing information in this case.

**3. Does the available data offer specific information about the time of death?**

Ms. Dwyer's argument appears to rest on a group of assumptions and observations beginning on page 8:

Given likely that Clayton did not expire until sometime likely Sunday in the early morning, judging from the state of rigor mortis, all the Alcohol in Clayton's body would have been digested, and the strong smell of alcohol noted by the pathologist at time of dissecting Clayton's stomach during Autopsy, is suspect.

And on page 9:

Clayton's entire supper was digested to the point of stool formation. Given the cold conditions, injury, alcohol consumption digestion would have been slowed greatly, therefore, to have formed stool would mean at least a 12-30 hrs. Given the circumstances, from ingestion of food until expiring.

And, again on page 9:

because of the presence of rigor mortis Clayton had died not less than 12 hours before being found.

Later on the same page, Ms. Dwyer elaborates on the issue of the significance of rigor:

More telling of the time of Clayton's death than digestion is the state of rigor-mortis; when Clayton when photographed, he is in a state of full blown rigor, which would dispense after 12 hours, and delayed in cold conditions. Therefore it is likely that Clayton died sometime after 0100 on Sunday. No checks were conducted at the hospital, least not recorded, when rigor released.

The issue of the lividity pattern is explored in page 11:

Takes 12 hours for lividity to fix. If Clayton had died less than 12 hours previous to the photos, the lividity would not have been fixed, thus while lying in the E.R. the lividity could have been happening on his back

On page 13, Ms. Dwyer takes issue with what she perceives as a puzzling lack of decomposition and insect predation:

Entomology: the lack of putrefaction of Clayton's body, although some autolysis is noted in his organs, says that he lived well after his injury. The lack of insects is likely due to lack of putrefaction and autolysis. Diptera flies (24-48 hours), also flesh flies, house flies, blow flies, black flies, says that Clayton was not dead all the time he was missing, last seen Friday around 8:00.

On page 20, Ms. Dwyer makes note of the relative lack of maceration and wrinkling of the skin on the hands and feet ("washer-woman effect"):

From the lack of washer woman affects from soaking in water, on Clayton's skin, he was likely placed in the brook sometime between the hours of 0400-0600 am. Sunday and likely expired around 0100 am hours before.

The summary of her thesis is this: Clayton Miller's body was not as decomposed as one might expect for the length of time between Friday night, when he went missing, and Sunday, when he was discovered dead.

The problem of assigning a post-mortem interval is not a new one. There is a general presumption amongst lay people that it is possible to give a specific time of death based on our observation of things like rigor mortis, livor mortis, the rate at which the stomach empties, and the presence or absence of certain kinds of insects. This is false. The idea that the post-mortem interval can be accurately estimated has been so thoroughly refuted that it barely warrants serious consideration. Still, for the sake of completeness, I offer some excerpts from Dr. Knight's excellent forensic pathology text<sup>2</sup>:

On the subject of livor mortis (also called hypostasis) (page 57):

Hypostasis can appear within half an hour of death or it may be delayed for many hours. Its variability is such that it is useless for any estimation of the time since death.

On the subject of rigor mortis (page 61):

In view of the wide range of times at which the various stages of rigor appear and fade, it is a poor determinant of the time since death.

On the subject of decomposition generally (page 64):

In addition, the time scale for decomposition may vary greatly in different circumstances and climates, and even in the same corpse: the head and arms may be skeletalized,

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<sup>2</sup> P. Saukko and B. Knight. *Knight's Forensic Pathology* 3<sup>rd</sup> Ed. Edward Arnold 2004.



whilst the legs and trunk, perhaps protected by clothing or other covering, may be moderately intact. All permutations may be found, making it even more difficult to estimate the probable time since death.

Ms. Dwyer cites the gastric contents as further evidence of a later time of death. Reliance on gastric emptying time in the estimation of time of death has been shown to be unreliable and not scientifically valid. I think it is fair to say that the case of ██████████ in Ontario has thoroughly dispelled any notion that gastric emptying times are a valid method of establishing the time of death.

I conclude that current methods of estimating post-mortem interval are unreliable and that Ms. Dwyer does not offer a novel or valid interpretation of the existing evidence with respect to the time since death.

#### **4. Is there any evidence that Clayton Miller's body was moved after death?**

Ms. Dwyer alleges that Clayton Miller's body must have been moved after his death, a theory that was first advanced by Dr. Baden in his report of the second autopsy. On page 11 of her opinion, she explains her theory:

Clayton's unnatural rigor-mortis position indicates that his body was moved, not in a natural position to be lying face down. His contorted neck muscles, either indicate he was moved/and or in a seizure position when he expired. Also lividity on back and front, not likely fixed when brought to E.R., as some lividity noted also on back, which would be more visible under ultraviolet light, lividity takes time for fixation and is delay in cold conditions. Lividity on back and front suggestion he was moved, see Photos...

The first pillar of her theory is that the rigor mortis and livor mortis patterns do not concord with the terminal position of the body. The second pillar of her theory is that witnesses who were in the vicinity of Clayton Miller's body on Saturday, May 5, did not see it but (in Ms. Dwyer's opinion) ought to have. ("...as per witnesses who passed by looking for liquor hidden the night before after the raid." Page 13 of her report.)

The limitations of rigor mortis and livor mortis in the determination of the time of death have been previously addressed. Based on descriptions of Clayton Miller's body at the scene and the first autopsy as well as the photographs taken at the first autopsy, in my opinion the pattern of livor mortis and the configuration of rigor mortis are concordant with the reported position of the body when it was discovered, i.e., prone (face down). The lividity pattern is anterior, in keeping with a prone position, with areas of blanching on the anterior torso. The arrangement

of the limbs does not prove that the body was moved, and appear to me to be consistent with [REDACTED] testimony regarding the position in which he found the body.

The second pillar of Ms. Dwyer's theory bears some scrutiny. The witnesses that Ms. Dwyer refers to are Gerald Coady and Baxter Thorne, who claimed to be in the vicinity of the Nest together on Saturday afternoon. Mr. Coady had initially told police that he was not near the location where the body was found, but later changed his story in a media interview. The RCMP investigated this discrepancy in some detail, and the results of this investigation are recorded in the file. This excerpt is an excellent summary of this frustrating exercise:

Q. Basically, what your telling me is that you haven't got a clue where you crossed that brook?

A. Maybe yeh.

At the very least, we must concede that his evidence is not reliable. The account of Mr. Thorne makes it clear that he did not proceed along the brook to where the body was later found, so no significance may be assigned to the fact that he did not discover the body.

Cst. Drinovz was reportedly in the vicinity of the body twice on Saturday, but on the first occasion he never left his police car, and on the second occasion, he was looking for liquor in the bushes along the stream, and from his description, he may well have missed the area in which the body was ultimately discovered. Importantly, Cst. Drinovz was not aware that Clayton Miller was dead until well after he made these two visits to the site.

[REDACTED] walked through this general area of the Nest on Saturday. They were interviewed by police, but their account does not place them close to the eventual location of the body. Thus, their non-discovery of the body has no significance.

With respect to this non-discovery of the body, a few other observations are noteworthy. Photographs and the video of the scene from Sunday, May 6 depict considerable vegetation on the banks of the brook, which may well have obscured the body. Also, Clayton Miller was wearing black jeans, which are not readily visible. Based on these factors, and what I was able to observe at the scene, I conclude that it is reasonable to suppose that three people might well have overlooked Clayton Miller's remains, given the conditions, and especially in light of the fact that none of them were searching for a dead body.

Dr. Baden's theory of the movement of Clayton Miller's body has a very different factual underpinning. His theory is outlined in the following way in his report:

...there is no autopsy evidence that he died as the result of drowning.

A diatom test, under the supervision of Dr. Butt, found no diatoms in Mr. Miller's bone marrow which further supports the conclusion that death was not caused by drowning. *If the two witnesses who state that Mr. Miller was lying face down in the stream with his nose and mouth under the water when they found his body are correct, then this placement occurred after he died. The possibility that he died elsewhere and was then brought to the stream cannot be excluded. [Emphasis added by me.]*

As an aside, others have unfairly portrayed Dr. Baden's opinion as being more definitive than it actually is. Consider the way it is treated in this press release:

...given this scenario, Clayton should have drowned. With this cause of death being eliminated via testing, it becomes obvious that the location of death is not in the stream where the body was found.

What does the evidence say about the position of Clayton Miller's face in the water? The police report describes the position of the body as follows:

They located his body laying crossways in brook that runs through the park. His head and upper torso were immersed in water and his feet were on dry ground at the edge of the brook. He was laying face down.

But the testimony of the witnesses who found Clayton Miller's body does not agree with this account. Dale MacKinnon's statement to police has the body "in the brook near the nest" and "on his stomach spread across the brook", but nothing more specific. This is an excerpt from Dale Mackinnon's testimony at the Randall Inquiry:

Q. You saw him laying in the brook. OK, and exactly how was he laying in the brook, was he on his back or on his front?

A. He was face down pointing towards the Nest.

Q. Now was his head in the water or out of the water?

A. I never really noticed, as far as I know it was at the edge of the water.

On cross examination, [REDACTED] tries to explore this issue, but Mr. MacKinnon is not able to provide more specific detail:

Q. Do you know what position the head was in?

A. It was straight forward that I noticed.

Q. When you say "I noticed" does that mean that you are not sure?

A. Yeah.

Q. You stayed far away, you didn't come close?

A. No.

The statement that [REDACTED] gave to police does not offer a detailed account of the position of the body:

Q. Where was Clayton's body?

A. He was face down in a brook near the nest.

But consider this excerpt from [REDACTED] direct examination:

Q. And what position was Clayton's body in when you saw it?

A. Face down in the brook.

Q. Huh. Could you give us an idea of what part of his body, if any, was in the water?

A. Not really.

Q. You don't remember if his head was in the water or not?

A. Part of it.

Q. Pardon me?

A. Part of his face was in the water.

Q. You remember part of his face in the water. What about the rest of his body?

A. It was in the water, too.

And later, during his cross-examination:

Q. When you say that Clayton Miller was face down in the brook, can you describe for me, you said that part of his face was in the brook, can you describe for me...was he like on one side or the other or face down like...?

A. I didn't go right over to him.

Q. Pardon me?





Q. Was his face in the water or down...?

A. At the time there was just a little bit of water around his face, like his face wasn't covered in water or nothing.

Q. Was his nose in or out of the water?

A. I never really took much notice eh, like it's something that you don't really want to see.

Police were eventually alerted and were brought to the death scene. Sgt. Thomas Dwyer gave the following evidence on direct examination with respect to the position of the body:

Q. So you went down to Colliery Lands Park and who did you see there?

A. Ah we parked the car and we walked over the pathway and down over the bank and we met [REDACTED], and there was the body of the young boy there across the brook, he was face down. He was identified as Clayton Miller.

Later, he provides more detail:

Q. And what can you say about the level of the water visa vie his air passages, his nasal passages and his mouth?

A. When I leaned over the body to get a pulse on the side of his neck and that I found that he was very cold and stiff and when I looked down, his mouth and nose were out of the water... the water was just around this part right along here.

The account of Cst. Wayne Crowe, who attended the death scene with Sgt. Dwyer, does not give useful information with respect to the position of Clayton Miller's mouth and nose. It was not long before Clayton Miller's mother and father, Maureen and Gervaise Miller, arrived at the scene. Mr. Miller gives the following account of the position of his son's body:

Q. Describe your son's body as you saw it, when you first arrived?

A. It was lying across the brook, ah... could I stand up?

Q. If that will assist you?

A. Well it was laying across the brook, it was... this part of him was down in the water. His left hand and arm were slightly around passes his side towards his back. His head was tipped to the right on back and this hand and arm were like this...and was lying sort of slanted across the brook with his face in several inches of water.

Q. How much of his face was covered with water?

A. I don't know, maybe half of it.

In fairness to Gervaise Miller, this had to have been an extremely emotional event for him, and his objective at the scene was not to make detailed observations about the position of his son's body. The direct examination of Sgt Dwyer leaves no doubt about this.

In summary, the information we have about the position of Clayton Miller's body is somewhat equivocal, but the following statements appear to be supported by the majority of the witness accounts:

1. Clayton Miller's body was found prone;
2. Clayton Miller's body, exclusive of his head, was at least partly immersed in water;
3. Clayton Miller's head was positioned close to the edge of the brook;
4. Clayton Miller's head was turned to one side;
5. At least part of Clayton Miller's head was in water, but:
6. It is far from certain that Clayton Miller's airway was immersed in water. In fact, the best and most specific statements (those of [REDACTED] and Sgt. Dwyer) indicate his airway was mostly or entirely clear of the water.

I conclude that Ms. Dwyer does not offer fresh evidence with respect to the movement of Clayton Miller's body. I conclude that the facts of this case do not support Ms. Dwyer's theory that the body was moved after his death. Furthermore, I conclude that the facts of the case do not support Dr. Baden's speculation that the body may have been moved after his death, which was based on incomplete and potentially inaccurate information.

#### **5. What is the cause of Clayton Miller's death?**

In her report, Ms. Dwyer advances the theory that Clayton Miller died of a severe head injury, with some contribution from hypothermia, and raises the possibility of foul play of some variety. The objective basis of her opinion on the cause of death has been discussed above: there is no evidence of the severe head injury that she describes. The principle cause of her theory that foul play must have occurred appears to relate to the notion that the body must have been moved after death. There is no proof of this, as previously addressed.

The question of the cause of death is the principle issue of this case, and unfortunately it must be said that the medical examiner service at that time did not meet this most important challenge. Several theories about the cause of death have been advanced by the physicians involved (roughly in order of their involvement):

- Dr. Ikejiani: Pulmonary Emphysema; then, asphyxia; then, dry drowning.
- Dr. Roach: Fall while intoxicated, with an undefined role for water; then, dry drowning.
- Dr. Perry: Drowning, with alcohol intoxication and exposure as important factors.
- Dr. Glasgow: Exposure (hypothermia)
- Dr. Butt: Exposure (hypothermia)
- Dr. Baden: Exposure (hypothermia)

With respect to my own opinion on the cause of death, I have had the benefit of the original photographs of the body and scene, the pathology reports and histologic slides, and testimony from the inquest. The photographs show the entire surface of the body except for the palmar surfaces of the hands, the plantar surfaces of the feet, and the genitalia. The anterior neck is well-represented. I make the following observations:

1. The body is that of a well-nourished, normally-formed young white male who appears the reported age of seventeen years.
2. The body is clad lightly for the ambient conditions: the clothing consists of a red sweatshirt, grey cotton shirt, black or very dark blue jeans, light-coloured socks and brown leather shoes.
3. The surface of the unclothed body has adherent flecks of brown-black material resembling soil or vegetation. This is especially prominent over the head, neck, and exposed areas of the lower abdomen.
4. Rigor mortis is present.
5. Livor mortis is present in an anterior distribution, with some blanching on the chest and anterior legs. This is consistent with a prone terminal position. Of note, one of the photographs shows that livor mortis is still blanchable at the time the photographs were taken. The livor mortis is a bright pink, a finding that is sometimes associated with hypothermia.



6. The skin of the right hand is water-logged in the characteristic pattern of the washer-woman effect.
7. The skin of the right upper eyelid, the bridge of the nose, and the tip of the nose have small abrasions.
8. The skin of the right cheek has a faint, ill-defined red bruise.
9. The skin of the chest has a sparse, acneiform rash.
10. The skin of the right lower leg has a small, ill-defined red bruise,
11. The skin of the left lower leg has a small, round, red bruise.

Pertinent negative findings of the photographs are as follows:

12. The scalp does not bear evidence of a head injury. Importantly, the white sheet in which the body was transported is not stained with blood.
13. The neck does not show evidence of strangulation.
14. Although the hands are not perfectly represented, there are no bruises in the locations where we might observe defensive-type injuries.
15. The body does not demonstrate evidence of any cutaneous injury, except as previously noted.
16. The body does not show evidence of penetrating trauma of any type.

The reports indicate that the organs of the body were normal in their morphology, as would be expected in a young, healthy person. Of particular note, there is no evidence that Clayton Miller aspirated water, as might be expected if he had drowned. The toxicology report shows that he was intoxicated when he died, an objective finding that agrees well with witness accounts.

Histologic findings in the brain have been discussed above. Additional microscopic findings of note include vacuolation of renal tubule cells and pancreatic acinar cells, findings that have been reported in cases of hypothermia. Although not specific, these findings are additional supportive evidence of hypothermia.

The history, circumstances of death, and scene findings are of paramount importance in cases such as this death, in which the anatomic findings are subtle and nonspecific. In this case, Clayton Miller was in a severely intoxicated state, outdoors on a cold night, who fled through rough terrain in the dark during a police raid. His body was found later, prone, and partly in a

shallow stream, but with his mouth and nose probably at least partially out of the water. The significance of the stream is thus not that it caused him to drown, but that it probably caused his body to lose heat rapidly. The few cutaneous injuries he has may be referred to a stumble through vegetation and down the embankment of the stream.

I conclude that it is most likely that Clayton Miller died of hypothermia, with alcohol intoxication as a contributing factor. The manner of death is accident. There is no evidence that he was beaten or strangled, and the idea that he drowned has its origin in an inadequate investigation of the death scene. With respect to the cause and manner of death, I am therefore in general agreement with Drs. Butt and Baden.

I acknowledge that Dr. Ikejiani was asked to consider the hypothesis that Clayton Miller died of hypothermia, and his thoughts on this subject are documented in a letter he wrote to Staff Sergeant Barnes on November 29, 1991. In this letter, Dr. Ikejiani advances the case for dry drowning, and indicates his disagreement with the hypothermia hypothesis on the basis of the following six points (which for the sake of clarity, I have summarized):

1. Absence of frost bite or gangrene
2. No red patches or blisters on the skin
3. No anoxic patches on the shoulders, knees, hands or feet
4. No deterioration of tissues such as hemorrhagic pancreatitis or gastric ulcerations
5. No evidence of cerebral infarcts and related phenomenon
6. No generalized edema or red discolouration of the face, or paralytic ileus

Dr. Ikejiani's reasoning is flawed. Even if these findings were typical or commonly found in cases of hypothermia (and they are not), their absence does not exclude hypothermia as a cause of death. I should also emphasize that the concept of dry drowning is controversial and is broadly considered outmoded.

Much of the uncertainty and controversy regarding this case has likely been the result of divergent and often contradictory accounts about the circumstances of Clayton Miller's death and the discovery of his body, conflicting and shifting opinions about the cause of death, and widespread dissemination of conjecture, innuendo, and outright fabrications. The fact that physicians substantively agreed with each other later in the history of the investigation is – unfortunately – too little consensus, too late.

In my opinion, the principle failure of this case is owned by the medical examiner service. All of the physicians who were involved early in the investigation accepted uncritically the idea that a person who is found face down in water must have drowned. This is not so: the nature of this particular body of water, the local weather during this period, the lack of supporting anatomic evidence, and the other details of the death scene ought to have prompted a more thorough treatment of this issue by the medical examiner. Specifically, it was always the duty of the medical examiner to identify the position of the mouth and nose with respect to the water. When the medical examiner failed to demonstrate leadership on this point, no amount of police investigation could make up for this fundamental deficiency.

## CONCLUSIONS AND RECOMMENDATIONS

Clayton Miller's body was discovered in a shallow brook on the morning of Sunday, May 6, 1990. He had been seen alive by friends on the evening of May 4, 1990, during a party in the vicinity of the Colliery Lands Park. He was intoxicated at the time of his disappearance. Two autopsies and multiple reviews by physicians and investigators have lent no credence to the notion that Clayton Miller died by violence.

I have reviewed all of the available autopsy and investigative material generated since Clayton Miller's death, and have no reason to believe that any pertinent material has been withheld or destroyed. In my opinion, the existing data is sufficient to determine the cause and manner of death to a reasonable degree of medical certainty. The second autopsy conducted by Dr. Butt appears to have been competent and thorough, with representatives of the Miller family in attendance. Of note, Dr. Baden, the pathologist retained by the Miller family, agreed with Dr. Butt's opinion regarding the cause of death. After two autopsies and twenty-four years, it is my opinion that exhumation and re-examination of Clayton Miller's remains would be extremely unlikely to yield any meaningful new and reliable information.

Ms. Dwyer's report provides neither new information nor a novel or scientifically valid interpretation of the existing data. Thus, her report does not provide the basis for a new investigation. No new or additional forensic methods or testing are merited at this time.

After reviewing all information regarding the investigation of the death of Clayton Miller, it is my opinion that the cause of death was hypothermia due to environmental exposure, with alcohol intoxication a contributing factor. The manner of death was accidental. This opinion is in general agreement with Drs. Butt and Baden, with the exception of Dr. Baden's theory regarding the possibility of movement of Clayton Miller's body after his death, which is not supported by the evidence, and (unfairly to Dr. Baden) has been overstated by other individuals.



# Appendix A



Attorney General  
Justice  
Office of the Minister

PO Box 7, Halifax, Nova Scotia, Canada B3J 2L6 • Telephone 902 424 4044 Fax 902 424-0510 • [novascotia.ca](http://novascotia.ca)

OCT 01 2014

**PRIVILEGED AND CONFIDENTIAL**

Dr. Matthew Bowes,  
Chief Medical Officer  
Nova Scotia Medical Examiner Service  
Dr. William D. Finn Centre for Forensic Medicine  
51 Garland Avenue  
Dartmouth, NS B3B 0J2

Dear Doctor Bowes:

Re: **Clayton Miller Case**

Further to your recent discussions with Judith Ferguson on September 19, 2014, I am writing to confirm the Department's request that you review the recent report written by Kate Dwyer in relation to the death of Clayton Miller. I further request that you provide a recommendation, based on your professional expertise, as to whether further investigation into the death of Clayton Miller is warranted.

I look forward to meeting with you to discuss the results of your review and recommendation.

Yours truly,

Honourable Lena Metlege Diab, ECNS

# Appendix B

**REPORT REDACTED**



# Appendix C



# Appendix D

NEW WATERFORD CONSOLIDATED HOSPITAL

PART I - GENERAL INFORMATION

A.11-90

Autopsy Number  
A. 4 - 90

NAME OF PATIENT														AGE		SOCIAL INSURANCE NUMBER									
M	I	L	L	E	R	C	L	A	Y	T	O	N	1	7	1	1	0	-	1	1	0	-	7	1	5
BIRTH DATE				DEATH DATE				DEATH TIME		Autopsy DATE			Autopsy TIME												
MONTH	DAY	YEAR		MONTH	DAY	YEAR		TIME		MONTH	DAY	YEAR		TIME											
0	4	1	7	7	3	0	5	0	6	9	0	1	5	0	0	0	5	0	7	9	0	1	0	1	0

CORONER- Dr. J. A. Roach

ATTENDING PHYSICIAN- Dr. Stevens

PART II - PRINCIPAL DIAGNOSES

PATHOLOGICAL DIAGNOSIS:

Pulmonary emphysema.

*21/90*

SYNOPSIS:

This is a case of a 17 year old young boy who attended a party in a field near a stream. He was last seen on Friday, May 4/90. When seen again, it was in the evening of Sunday, May 6/90 dead with face lying in a stream.

DATE	Pathologist	SIGNATURE
June 6/90	O. Ikejiani, M.D.	<i>O. Ikejiani</i>



A.11-90

Autopsy			
A	4	-	90

This is the case of a 17 year old young man who was last seen in the evening of May 4/90. He was one of the kids who took part at a party in the open field near a stream in New Waterford. The police surprised the party by suddenly switching on a flood light and using a loud speaker to announce their presence. The kids panicked and ran in all directions. This 17 year old kid was found on Sunday (evening) May 6/90, lying dead face down in the brook near the site of the party.

The blood alcohol is 26.08 mmol/l which indicates mere intoxication.

$26.08 \times 4.6 = 120 \text{ mg}\%$   
No mention of urine alcohol

PART III - GENERAL DATA

A.11-90

Autopsy Number

A.4 - 90

IDENTIFYING AND MISCELLANEOUS DATA

11 BODY EMBALMED	12 MEDICOLEGAL CASE	13 SUDDEN, UNEXPECTED NATURAL DEATH	14 NOTeworthy UNUSUAL CASE	15 POSSIBLE CPC CASE	16 PHOTOGRAPHS AVAILABLE
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

17 Autopsy EXTENT	18 SEX	19 RACE	20 SOMATYPE	21 EYE COLOR	22 HAIR
<input checked="" type="checkbox"/> COMPLETE	<input checked="" type="checkbox"/> MALE	<input checked="" type="checkbox"/> CAUCASOID	<input checked="" type="checkbox"/> AVERAGE	DARK BROWN	STRAIGHT
<input type="checkbox"/> TORSO ONLY	POSTMORTEM CHANGE		<input type="checkbox"/> ASTHENIC	LIGHT BROWN	CURLY
<input type="checkbox"/> HEAD ONLY	DEGREE	NEGROID	<input type="checkbox"/> PEAKIC	BLUE GRAY	BLACK
<input type="checkbox"/> OTHER	LIVIDITY	MONGLOID	<input type="checkbox"/> OTHER	OTHER	BROWN
		OTHER			BLONDE
					RED
					GRAY
					OTHER

Autopsy OUTLINE

NORMAL (Gross and Microscopic) PARTS, WEIGHTS AND MEASUREMENTS

23 SUPERFICIAL PARTS	24 GROSS TISSUES STORED	25 MICROSCOPIC SECTIONS MADE
26 BODY LENGTH	27 1 5 8 cm	28
29 BODY WEIGHT	30 1 6 5 lb	31
32 GENERAL DEVELOPMENT		
33 GENERAL NUTRITION		
34 SKIN		
35 SUBCUTANEOUS FAT		
36 HAIR DISTRIBUTION		
37 BREAST, RIGHT		
38 BREAST, LEFT		
39 HEAD AND FACE		
40 <input checked="" type="checkbox"/> NECK		
41 <input checked="" type="checkbox"/> THORAX		
42 ABDOMEN		
43 BACK		
44 UPPER EXTREMITIES		
45 <input checked="" type="checkbox"/> LOWER EXTREMITIES		
46 MOUTH		
47 LIPS		
48 TEETH		
49 TONGUE		
50 EYES		
51 NOSE		
52 EARS		

COMMENTS ON MINOR CHANGES WHICH DO NOT MERIT A DIAGNOSIS.  
 (Use space to document changes which support a pathological diagnosis.)

63 in

Three superficial small markings of superficial abrasion left posterior triangle of neck (pin-point)

Superficial abrasion; measures 2.2 x 0.2 cm. right leg (shin).





PART IV - SUPERFICIAL PARTS

A. 11-90

Autopsy NUMBER

A 4-90

DIAGNOSIS	SHOP CODE	SEX	DEGREE			DIAGNOSIS	SHOP CODE	SEX	DEGREE		
			1+	2-3	4+				1+	2-3	4+
TRAUMATIC LESION OF SKIN (HOSI)	0100-1000	11				JAUNDICE, GENERALIZED	0000-5743	11			
SURGICAL SCAR OF SKIN	0100-1512	11				CYANOSIS OF SKIN	0100-5801	11			
CONGENITAL ANOMALY OF SKIN (HOSI)	0100-2270	11				PALLOR OF SKIN	0100-5802	11			
HERNIA, INGUINAL	Y700-3330	11				DECUBITUS ULCER OF SKIN	0100-5442	11			
ABNORMAL VERTEBRAL CURVATURE	1120-3360	11				INANITION	0000-7050	11			
BARREL CHEST	Y210-3301	10				ATROPHY OF BREASTS	0400-7100	11			
VARICOSE VEIN(S) OF LOWER EXTREMITY	1940-3460	11				BALDNESS	0201-7130	11			
HEMORRHOIDS	5900-3461	20				CLUBBED FINGERS	Y800-7218	11			
EDEMA OF SKIN	0100-3840	11				OBESITY	0000-7282	X			
HEMORRHAGE OF SKIN (HOSI)	0100-3850	11				VERRUCA OF SKIN	0100-7352	11			
DENTAL CARIES	3400-4070	11				FIBROCYSTIC DISEASE OF BREASTS	0400-7531	X			
URETHRAL CARUNCLE	7300-4547	11				GYNECOMASTIA	0400-7534	11			
CATARACT	X400-5005	11				NEOPLASM METASTATIC IN SKIN	0100-5005	11			
ARCUS SENILIS	X400-5003	11				NEVI OF SKIN, MULTIPLE	0100-5720	11			
ARTERIOSCLEROSIS IN EXTREMITY	4700-5200	11				HEMANGIOMA OF SKIN	0100-5120	11			

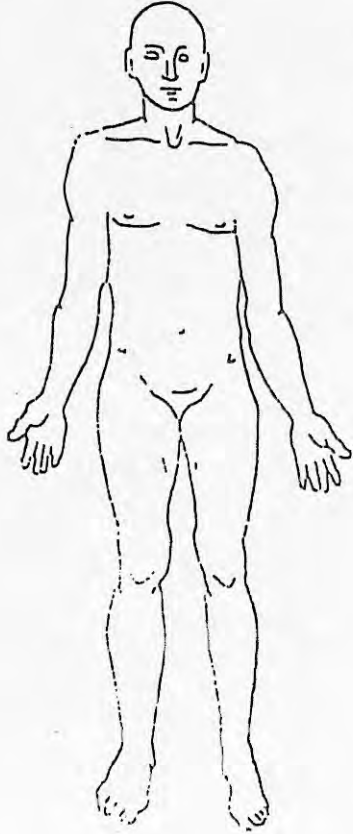
TOPOGRAPHY				MORPHOLOGY				ETIOLOGY				FUNCTION			
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28

gross, microscopic and metabolic laboratory findings related to (data)

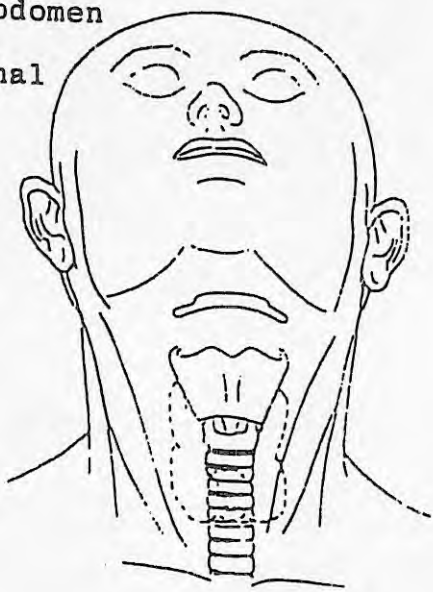
SURFICIAL PARTS: Use this area for external examination, skin and subcutis

GROSS:

See page 3.



Well nourished. Abdomen is flat. There is no external markings of any injury or strangulation.



Neck organs



A. 11/90

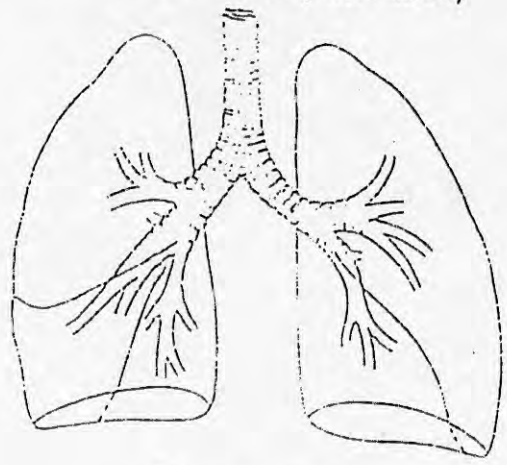
Autopsy NUMBER  
a. 4 - 90

DIAGNOSIS	SHOP CODE	C 1	DEGREE			DIAGNOSIS	SHOP CODE	C 1	DEGREE		
			1	2-3	4				1	2-3	4
TRAUMATIC LESION OF LUNG (MOSI)	2000-1000	11				HEMORRHAGE IN LUNG	2000-3050	11			
SURGICAL ABSENCE OF LUNG OR LOBE	2000-1500	11				PLEURITIS	2500-0500	11			
FOREIGN MATERIAL IN BRONCHUS	2600-1800	11				BRONCHIOLITIS	2700-4000	11			
CONGENITAL ANOMALY OF LUNG (MOSI)	2000-2100	11				BRONCHOPNEUMONIA, FOCAL	2000-4011	11			
BRONCHIECTASIS	2600-3412	11				BRONCHOPNEUMONIA, CONFLUENT	2000-4021	11			
EMPHYSEMA	2000-3430	11				CRENIC PNEUMONITIS	2000-4057	11			
MUCOUS PLUGS IN BRONCHIOLES	2700-3526	11			X	LOBAR PNEUMONIA	2000-4102	11			
OBSTRUCTION OF BRONCHUS	2500-3500	11				GRANULOMATOUS PNEUMONITIS	2000-4400	11			
ATELECTASIS OF LUNG, PARTIAL	2000-3631	11				FIBROSIS OF LUNG	2000-4000	11			
THROMBUS IN PULMONARY ARTERY	4400-3700	11				ADHESIONS OF PLEURA	2000-4021	11			
PULMONARY EMBOLUS	4400-3710	11				ARTERIOSCLEROSIS, PULMONARY ARTERY	4400-5200	11			
ACUTE HYPEREMIA OF LUNG	2000-3812	11				INFARCT OF LUNG	3000-5470	11			
CHRONIC PASSIVE CONGESTION OF LUNG	2000-3816	11				ANTHRACOSIS OF LUNG	2000-5500	11			
HYDROTHORAX	2700-3830	11				SQUAMOUS METAPLASIA OF BRONCHUS	2500-7520	11			
EDEMA OF LUNGS	2000-3940	11				NEOPLASM METASTATIC IN LUNG	2000-8000	11			

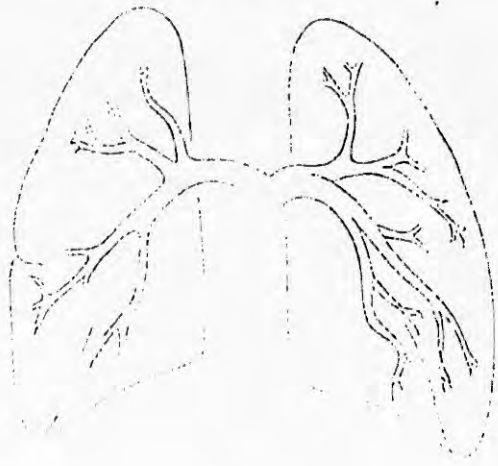
Gross, pleural cavity, and mediastinal anatomy findings related to upper  
 respiratory tract, trachea to bronchi, trachea, pleura, pleural fluid, mediastinum, diaphragm and pulmonary vessels.

TOPOGRAPHY				MORPHOLOGY				ETIOLOGY				FUNCTION			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Trachea, lungs & bronchi (antero-medial)



Pulmonary arteries



**GROSS:**

Pleural cavities: The pleural cavities are smooth and moist. No adhesions or fluid is present.

Lungs: The right lung weighs 450 gm. and the left lung is 400 gm. Both lungs are grayish-white and the surface is smooth and subcrepitant.

**MICROSCOPIC:**

Sections from the lungs show emphysema. All the lobes of the lungs show emphysema.

A. 11790

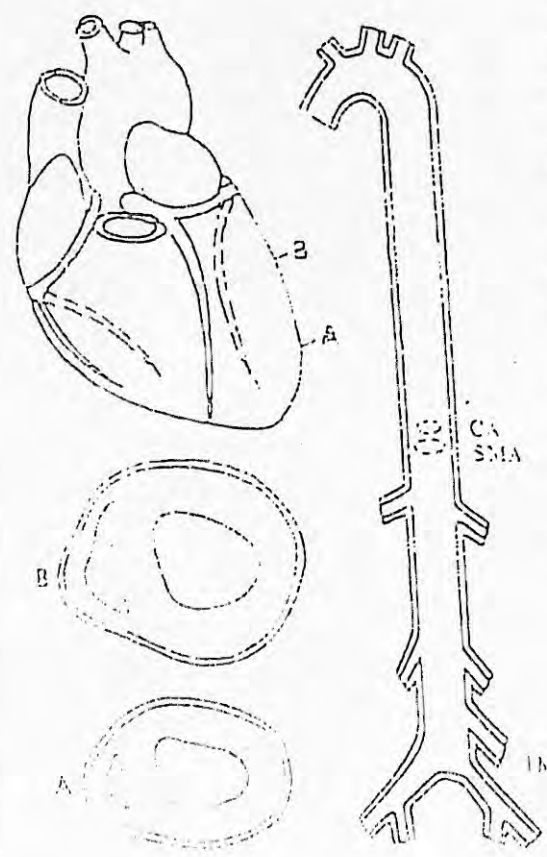
ALLODYSY NUMBER

A 4 - 9 0

DIAGNOSIS	SHOP CODE	S O 4	DEGREE			DIAGNOSIS	SHOP CODE	S O 4	DEGREE		
			1	2	3				4	1	2
TRAUMATIC LESION OF HEART (MDS)	3200-1000	11				ARTERIOSCLEROSIS GENERALIZED	4100-5200	28			
EFFECT OF CARDIAC MASSAGE	3200-1500	11				-ATHEROSCLEROSIS	4100-5210	29			
CONGENITAL ANOMALY OF HEART (MDS)	3200-2400	11				-MEDIAL CALCIFICATION	4100-5241	30			
ANOMALOUS CORONARY DISTRIBUTION	4300-2463	11				ARTERIOSCLEROSIS OF AORTA	4200-5200	31			
DILATATION OF HEART	3200-3410	11				ARTERIOSCLEROTIC ANEURYSM OF AORTA	4200-5242	32			
CARDIAC VALVULAR STENOSIS	3500-3610	11				ARTERIOSCLEROSIS OF CORONARY ARTERY	4300-5200	33			
CARDIAC VALVULAR INCOMPETENCE	3500-3650	11				PHLEBOSCLEROSIS	4540-5250	34			
THROMBOSIS IN CORONARY ARTERY	4370-3700	25				INFARCT OF HEART, LEFT VENTRICLE	3340-5470	35			
THROMBOSIS IN AORTA	4300-3700	11				-ANEURYSMAL DILATATION	3340-5440	36			
THROMBOSIS IN VEIN OF EXTREMITY	4940-3700	21				-RUPTURE	3200-5480	37			
HYDROPERICARDIUM	3100-3830	21				-MURAL THROMBUS	3400-3700	38			
HEMORRHAGE IN MYOCARDIUM	3201-3850	21				-FIBRINOUS PERICARDITIS	3100-4050	39			
HEMOPERICARDIUM	3100-3846	21				BROWN ATROPY OF HEART	3200-7100	40			
UREMIC PERICARDITIS	3100-4057	21				HYPERTROPHY OF HEART	3200-7200	41			
FIBROSIS OF MYOCARDIUM	3201-4600	21				NEOPLASM METASTATIC IN HEART	3200-6006	42			

TOPOGRAPHY				MORPHOLOGY				ETIOLOGY				FUNCTION				1	2-3	4
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	

11088: no coronary and cerebral laboratory findings related to heart, cardiac vessels, pericardium, cardiovascular system, heart and lungs, and arterial part of venous system.  
 11089: no coronary and cerebral laboratory findings related to heart, cardiac vessels, pericardium, cardiovascular system, heart and lungs, and arterial part of venous system.



**GROSS:**

Pericardial cavity: contains about 25 ml. of clear fluid.

Heart: weighs 340 gm. The ventricles appear unremarkable. On section, the heart orifices are within normal limits, and the heart valves show no deformities. The myocardium is unremarkable.

Coronary arteries: The right and left coronary arteries are remarkably free of atherosclerosis.

Aorta: Free of atherosclerosis.

**MICROSCOPIC:**

Sections from the myocardium are unremarkable.





PART IV - ALIMENTARY SYSTEM

A. 11/90

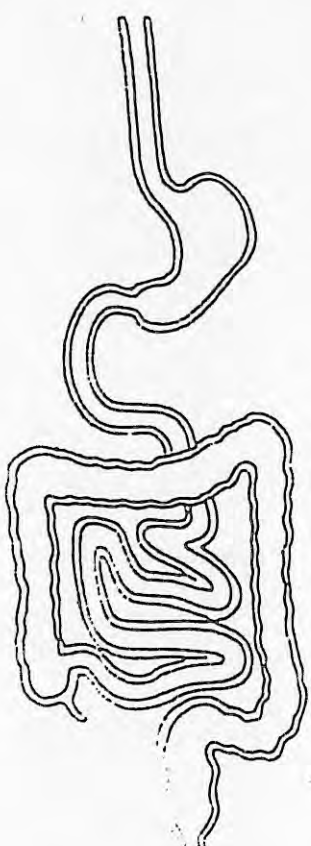
Autopsy NUMBER

A. 4 - 90

DIAGNOSIS	SHOP CODE	A	DEGREE			DIAGNOSIS	SHOP CODE	A	DEGREE		
			1	2-3	4				1	2-3	4
TRAUMATIC LESION, ALIMENTARY (NOSE)	5000-1000	11				UREMIC COLITIS	6700-4057	10			
SURGICAL ABSENCE OF APPENDIX	6600-1500	14				ACUTE PERITONITIS	Y440-4100	29			
CONGENITAL ALIMENTARY ANOMALY (NOSE)	5000-2100	11				ACUTE ULCER OF STOMACH	6300-4103	10			
MECKEL'S DIVERTICULUM	6401-2337	11				PERFORATED PEPTIC ULCER OF STOMACH	6300-4633	11			
FOREIGN BODY IN ALIMENTARY TRACT	5000-3200	11				DIVERTICULITIS OF COLON	6700-4511	21			
DILATATION OF STOMACH	6300-3410	11				ADHESIONS OF PERITONEUM	Y440-4234	23			
DILATATION OF INTESTINE	5010-3410	11				ARTERIOSCLEROSIS, MESENTERIC ARTERY	4550-5300	14			
DIVERTICULA OF COLON	6700-3475	21				FAT NECROSIS OF PERITONEUM	Y440-5441	13			
VARIX OF ESOPHAGUS	6200-3460	21				INFARCT OF SMALL INTESTINE	6401-5476	24			
OBSTRUCTION OF ALIMENTARY TRACT	5000-3600	21				CHRONIC ATROPHIC GASTRITIS	6300-7153	17			
ASCITES	Y440-3830	21				CHRONIC HYPERTROPHIC GASTRITIS	6300-7242	24			
HEMORRHAGE IN ALIMENTARY TRACT	5000-3850	21				NEOPLASM METASTATIC IN INTESTINE	5010-8006	29			
ACUTE APPENDICITIS	6600-4101	21				NEOPLASM METASTATIC IN STOMACH	6300-8006	43			
CHRONIC PEPTIC ULCER OF STOMACH	6300-4003	25				NEOPLASM METASTATIC IN PERITONEUM	Y440-8006	11			
CHRONIC PEPTIC ULCER OF DUODENUM	6430-4003	17				ADENOMA (polyp) OF COLON	6700-8210	13			

TOPOGRAPHY		MORPHOLOGY				ETIOLOGY				FUNCTION				DEGREE					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	

gross, microscopic or medical laboratory findings related to mouth, salivary glands, alimentary system (Use this form for pharynx, esophagus, gastrointestinal tract, retroperitoneum and associated vessels.)



GROSS:

Pharynx-Esophagus: unremarkable.

Stomach-Duodenum: contains no partially digested fluid. Contains only mucoid like (small) material and smelt strongly of alcohol.

Small and large intestines: normal.

Retroperitoneum: normal.



PART I. HEMATOPOIETIC SYSTEM

A.11-90

Autopsy NUMBER

A 4 - 90

DIAGNOSIS	SHOP CODE	A	B	DEGREE			DIAGNOSIS	SHOP CODE	A	B	C	DEGREE		
				1	2-3	4						1	2-3	4
SURGICAL ABSENCE OF SPLEEN	0700-1500	11					ATROPHY OF SPLEEN							
RUPTURE OF SPLEEN (MOSI)	0700-1803	11					LYMPHADENOPATHY	0700-7100	28					
CONGENITAL HEMATOPOIETIC ANOMALY	0500-2100	11					SPLENOMEGALY	0500-7200	28					
ACCESSORY SPLEEN	0700-2235	10					ACUTE SPLENITIS	0700-7200	28					
CHRONIC PASSIVE CONGESTION, SPLEEN	0700-3016	11					GRANULOCYTOPENIA	0700-7261	11					
HEMORRHAGE IN SPLEEN	0700-3050	10					ANEMIA (MOSI)	0700-7722	11					
CHRONIC LYMPHADENITIS	0500-4300	11					THROMBOCYTOPENIA	0700-7723	11					
GRANULOMATOUS LYMPHADENITIS	0500-4400	28					ERYTHROID HYPERPLASIA OF MARROW	0700-7729	11					
GRANULOMATOUS SPLENITIS	0700-4400	11					GRANULOCYTIC HYPERPLASIA OF MARROW	0500-7771	11					
FOCAL FIBROSIS OF LYMPH NODE	0500-4805	11					LYMPHOID HYPERPLASIA OF MARROW	0500-7772	28					
FOCAL FIBROSIS OF SPLEEN	0700-4805	11					ERYTHROID HYPOPLASIA OF MARROW	0500-7780	11					
HYALINE PERISPLENITIS	0700-4814	14					GRANULOCYTIC HYPOPLASIA OF MARROW	0500-7791	28					
ARTERIOSCLEROSIS OF SPLENIC ARTERY	0500-5200	13					NEOPLASM METASTATIC IN SPLEEN	0500-7792	28					
INFARCT OF SPLEEN	0700-5470	28					NEOPLASM METASTATIC IN LYMPH NODE	0700-8005	11					
AMYHRACOSIS OF LYMPH NODE	0800-5503	17					NEOPLASM METASTATIC IN MARROW	0500-8006	11					

Hematopoietic System (Use this form for gross, microscopic and medical laboratory findings related to blood and its components: bone marrow, spleen, lymph, lymph nodes, thymic duct, thymic duct, thymic duct, thymic duct)

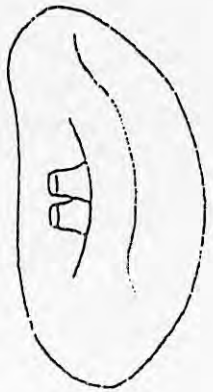
GROSS:

Spleen: weighs 160 gm. The surface is smooth and purplish red in colour. On section, normal architecture is seen.

Lymph nodes: There is no enlargement of the hilar lymph nodes or other lymph nodes in the body.

MICROSCOPIC:

Sections from the spleen show normal architecture.





PART IV - MALE REPRODUCTIVE SYSTEM

A. 11/90

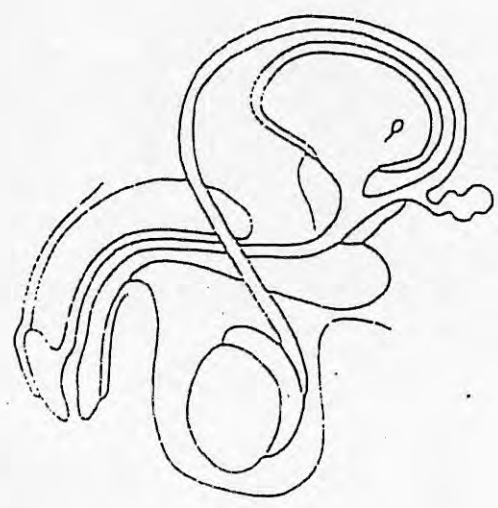
AUTOPSY NUMBER

A. 4 - 90

DIAGNOSIS	SHOP CODE	S	D	K	DEGREE			DIAGNOSIS	SHOP CODE	S	D	K	DEGREE		
					1	2-3	4						1	2-3	4
TRAUMATIC LESION, MALE GENITAL INOSI	7030-1000	11			A	B	C	CHRONIC EPIDIDYMITIS	75-24300	11			A	B	C
SURGICAL ABSENCE OF PROSTATE	7710-1500	11						CHRONIC SEMINAL VESICULITIS	7700-4300	11					
CONGENITAL MALE GENITAL ANOMALY INOSI	7030-2100	11						GRANULOMATOUS ORCHITIS	7800-4200	11					
CRYPTORCHIDISM	7800-2314	11						FIBROSIS OF TESTIS	7800-4800	11					
CALCUL OF PROSTATE	7710-3100	11						INFARCT OF PROSTATE	7710-5470	11					
VARICOCELE	7930-3465	11						CORPORA AMYLACEA IN PROSTATE	7710-5503	11					
SPERMATOCELE	7910-3510	11						ATROPHY OF TESTIS	7800-7100	11					
HYDROCELE	7040-3532	11						ASPERMATOGENESIS	7800-7150	11					
OBSTRUCTION OF URETHRA	7500-3600	11						SPERMATOGENIC ARREST	7800-7155	11					
PHIMOSIS	7600-3615	11						HYPERPLASIA OF PROSTATE	7710-7200	11					
TESTIS OF TESTIS	7800-3621	11						LEUKOPLAKIA OF PENIS	7800-7251	11					
THROMBOSIS IN PERIPROSTATIC VEINS	4907-3700	11						SQUAMOUS METAPLASIA OF PROSTATE	7710-7250	11					
HEMATOCELE	7040-3061	11						NEOPLASM METASTATIC IN PROSTATE	7710-8006	11					
ACUTE PROSTATITIS	7710-4100	11						NEOPLASM METASTATIC IN TESTIS	7800-8006	11					
CHRONIC PROSTATITIS	7710-4300	11						LIPOMA OF SPERMATIC CORD	7700-8550	11					

TOPOGRAPHY				MORPHOLOGY				ETIOLOGY				FUNCTION			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Gross, microscopic and medical history findings referred to  
 MALE REPRODUCTIVE SYSTEM (see this form for  
 external genitalia, prostate, testes, epididymides, seminal vesicles, penile urethra, and vas deferens)



GROSS:

Prostate: weighs 12 gm. Normal  
Penis: unremarkable.

MICROSCOPIC:

Sections from the prostate are normal.



PART IV FEMALE REPRODUCTIVE SYSTEM

A.11-90

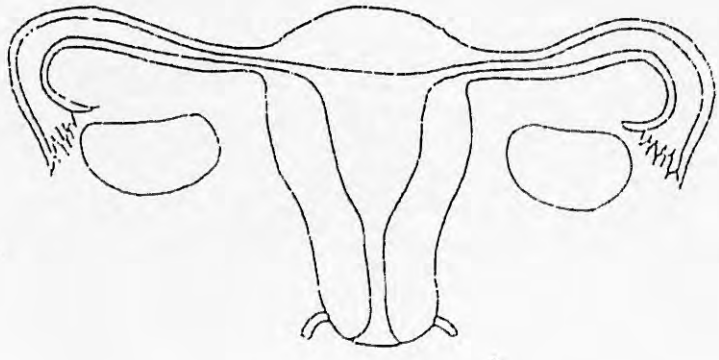
AUTODIGIT NUMBER

A. 4 - 9 0

DIAGNOSIS	SHOP CODE	S.O.C.	DEGREE				DIAGNOSIS	SHOP CODE	S.O.C.	DEGREE			
			1+	2-3	4+					1+	2-3	4+	
SURGICAL ABSENCE OF UTERUS	P200-1500	11					ADHESIONS OF OVARY	0700-4324	11				
SURGICAL ABSENCE OF OVARIES	2700-1500	11					ATROPHY OF UTERUS	B200-7100	11				
CONGENITAL FEMALE GEN. ANOMALY (NOS) 17040-2100		11					KLADROSIS OF VULVA	6010-7141	11				
PAROVARIAN CYST (Hydatid)	0650-2520	11					HYPERTROPHY OF UTERUS	B200-7200	11				
PROLAPSE OF UTERUS	B200-3315	11					POLYPOID HYPERPLASIA OF ENDOMETRIUM	B400-7105	11				
CYSTOCELE	B100-3341	11					LEUKOPLAKIA OF VULVA	B010-7161	11				
HYDROSALPINX	3510-3520	11					MUCOSAL POLYP OF CERVIX	B300-7351	11				
SIMPLE CYST OF OVARY	3700-3540	21					MUCOSAL POLYP OF ENDOMETRIUM	B400-7351	11				
MUCOUS CYST OF CERVIX	3700-3546	21					SQUAMOUS METAPLASIA OF CERVIX	B500-7320	11				
FOLLICLE CYST OF OVARY	3700-3549	21					ENDOMETRIOSIS OF OVARY	B700-7371	11				
CORPUS LUTEUM CYST OF OVARY	3700-3552	21					ENDOMETRIOSIS OF OVIDUCT	B610-7371	11				
HEMORRHAGIC CYST OF OVARY	3700-3557	21					ENDOMETRIOSIS OF UTERUS (ADENOMYOSIS)	B200-7372	11				
THROMBIN IN PERIUTERINE VEIN(S)	4201-3700	11					NEOPLASM METASTATIC IN OVARY	0700-8005	11				
NEOPLASM CERVICITIS	4700-4300	11					NEOPLASM METASTATIC IN UTERUS	B200-8005	11				
CHRONIC SALPINGITIS	B310-4300	11					LEIOMYOMA OF UTERUS	B200-8350	11				

findings: \_\_\_\_\_  
 (based on external, internal, uterine, cervical, ovarian and fallopian tube structures and vessels.)  
 (based on microscopic and medical history findings)

TOPOGRAPHY				MORPHOLOGY				ETIOLOGY				FUNCTION				1+	2-3	4+
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29



not applicable.



PART IV - ENDOCRINE SYSTEM

A. 11-90

AUTOPHY INDEX  
A. 4 - 90

DIAGNOSIS	SHOP CODE	E O 4	DEGREE				DIAGNOSIS	SHOP CODE	E O 4	DEGREE			
			1	2	3	4				1	2	3	4
SURGICAL ABSENCE OF THYROID LOBE	9300-1500	11					CALCIFICATION IN THYROID	9600-5511	20				
CONGENITAL ENDOCRINE ANOMALY (NOS)	9000-2100	11					ATROPHY OF THYROID	9600-7100	20				
ACCESSORY ADRENAL CORTEX	9310-2234	11					LIPID DEPLETION OF ADRENAL CORTEX	9310-7121	20				
CYST OF THYROID (NOS)	9600-3540	11					GOITER (NOS)	9600-7231	11				
CYST OF PARATHYROID (NOS)	9700-3540	11					NODULAR GOITER, COLLOID	9600-7233	11				
CYST OF PITUITARY (NOS)	9100-3540	11					NODULAR GOITER, HYPERPLASTIC	9600-7234	11				
HEMORRHAGE IN ADRENAL	9300-3050	11					HYPERPLASIA OF THYROID	9600-7300	11				
HEMORRHAGE IN THYROID	9600-3050	20					HYPERPLASIA OF PARATHYROID	9700-7300	11				
CHRONIC THYROIDITIS (NOS)	9600-4300	21					NODULAR HYPERPLASIA OF ADRENAL CORTEX	9310-7635	21				
GRANULOMATOUS INFLAM. OF ADRENAL	9300-4400	21					STRUMA LYMPHOMATOSA	9600-7661	11				
GRANULOMATOUS THYROIDITIS	9600-4400	21					LYMPHOID HYPERPLASIA OF THYROID	9600-7780	21				
FIBROSIS OF THYROID	9600-4800	11					NEOPLASM METASTATIC IN ADRENAL	9300-8006	11				
HYPERPLASIA OF PANCREATIC ISLETS	9000-5110	21					FETAL ADENOMA OF THYROID	9600-8140	11				
INFARCT OF PITUITARY	9100-5470	11					COLLOID ADENOMA OF THYROID	9600-8350	11				
FOCAL ADRENAL CORTICAL NECROSIS	9310-5401	11					ADENOMA OF ADRENAL CORTEX	9310-8370	11				

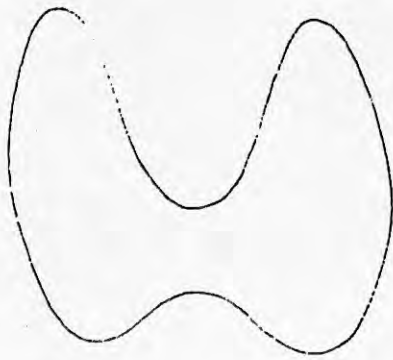
TOPOGRAPHY				MORPHOLOGY				ETIOLOGY				FUNCTION			
1+	2-2	3	4+	1+	2-2	3	4+	1+	2-2	3	4+	1+	2-2	3	4+

Gross, anatomic, and medical laboratory findings related to adrenal glands, pancreas, and associated vessels.

GROSS:

Thyroid: weighs 15 gm.

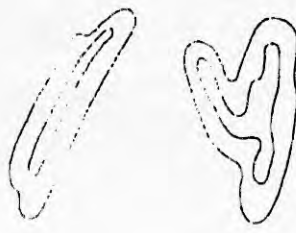
Adrenals: The right adrenal weighs 10 gms. and the left weighs 8 gm. Both adrenals are normal in size and position and both are buried in fat.



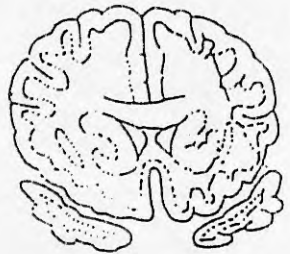
MICROSCOPIC:

Sections from the thyroid show normal architecture.

Sections from the adrenals are normal.

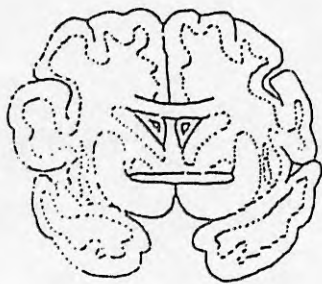






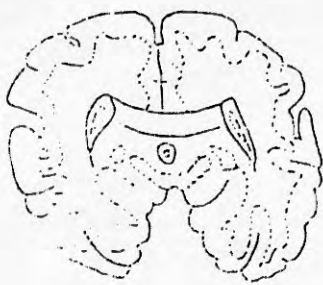
GROSS:

Coronal sections do not show any evidence of tumour, infarct or haemorrhage.



MICROSCOPIC:

Sections show normal architecture.



Autopsy NUMBER				
7	8	9	10	11
A	4	+	9	0



GROSS:

Sections do not show any evidence of haemorrhage or tumour or infarct.



MICROSCOPIC:

Sections show normal architecture.





PART IV - MUSCULOSKELETAL SYSTEM

A. 11-90

ANTHROPOMETER NUMBER

A 4 - 9 0

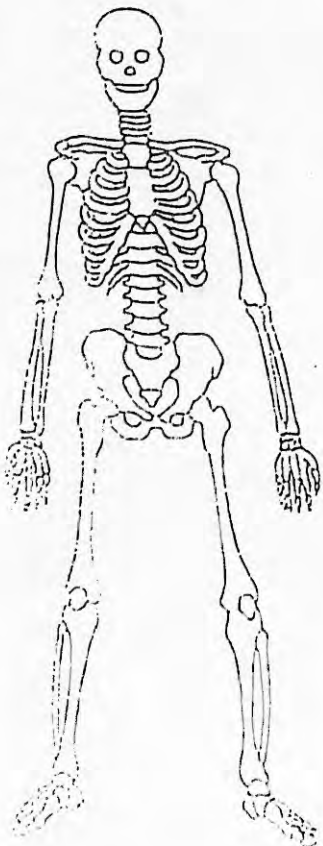
DIAGNOSIS	SHOP CODE	A	DEGREE			DIAGNOSIS	SHOP CODE	A	DEGREE		
			1	2-3	4				1	2-3	4
FRACTURE OF BONE (NOS)	1100-1200	11	A	B	D	GRANULOMATOUS OSTEOMYELITIS	1100-2400	11	A	B	D
FRACTURE OF BONE, PATHOLOGIC	1100-1250	11				GRANULOMATOUS ARTHRITIS	1200-4100	11			
FRACTURE OF BONE, HEALED	1100-1280	11				RHEUMATOID ARTHRITIS	1200-4554	11			
DISLOCATION OF JOINT (NOS)	1200-1300	11				ANKYLOSING SPONDYLITIS	1200-4565	11			
ROUND OF SOFT TISSUE (NOS)	1500-1600	11				OSTEOPOROSIS	1100-5021	11			
AMPUTATION OF LOWER EXTREMITY	1170-1470	14				OSTEOARTHRITIS	1200-5023	11			
CONGENITAL MUSCULOSKEL ANOMALY (NOS)	1000-2100	10				CALCIFICATION IN SYNOVIAL	1201-5541	11			
FOREIGN BODY IN SOFT TISSUE	1500-3200	15				ATROPHY OF MUSCLE	1300-7100	11			
HEMATED INTERVERTEBRAL DISC	1520-3351	11				EXOSTOSIS OF BONE	1100-7211	11			
BONE CYST (NOS)	1100-3540	11				OSTEITIS DEFORMANS	1100-7657	11			
HYPERTROPHOSIS	1200-3030	11				NEOPLASM METASTATIC IN BONE	1100-8006	11			
HEMORRHAGE IN MUSCLE	1300-3850	11				NEOPLASM METASTATIC IN SOFT TISSUE	1500-8006	11			
HYPERTROPHOSIS	1200-3062	11				OSTEOMA OF BONE	1100-9180	11			
FREE BODY IN JOINT	1200-3911	11				CARTILAGINOUS EXOSTOSIS OF BONE	1100-9210	11			
CHRONIC OSTEOMYELITIS	1100-4300	11				CHONDROMA OF BONE	1100-9220	11			

TOPOGRAPHY				MORPHOLOGY				ETIOLOGY				FUNCTION				1	2-3	4		
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	A	B	D

GROSS, ANTHROPOMETER and medical laboratory  
 MUSCULOSKELETAL SYSTEM Use this form for gross, anthropometric and histological soft tissues.  
 Findings related to bones, joints, muscles, tendons and ligaments.

**GROSS:**

No fracture of the bones is seen.

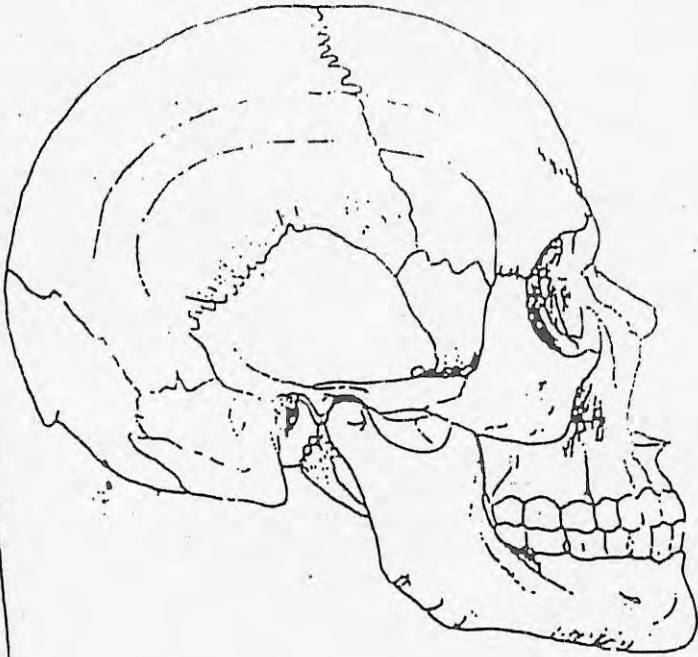


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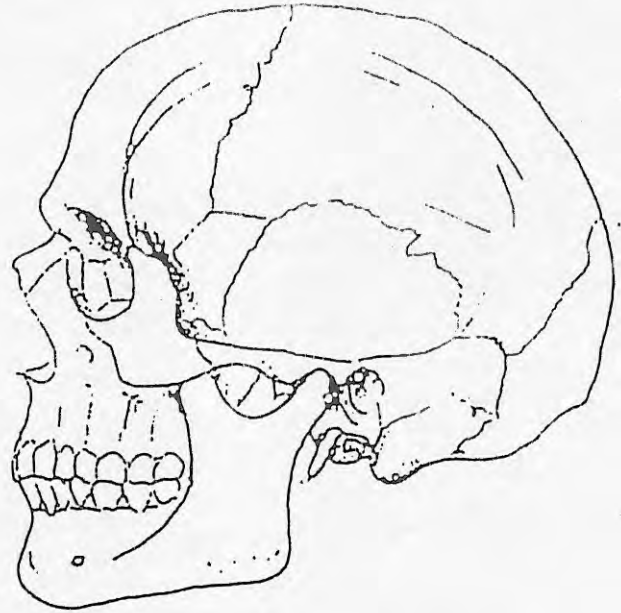
A. 11-90

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A 4 - 9 0



R

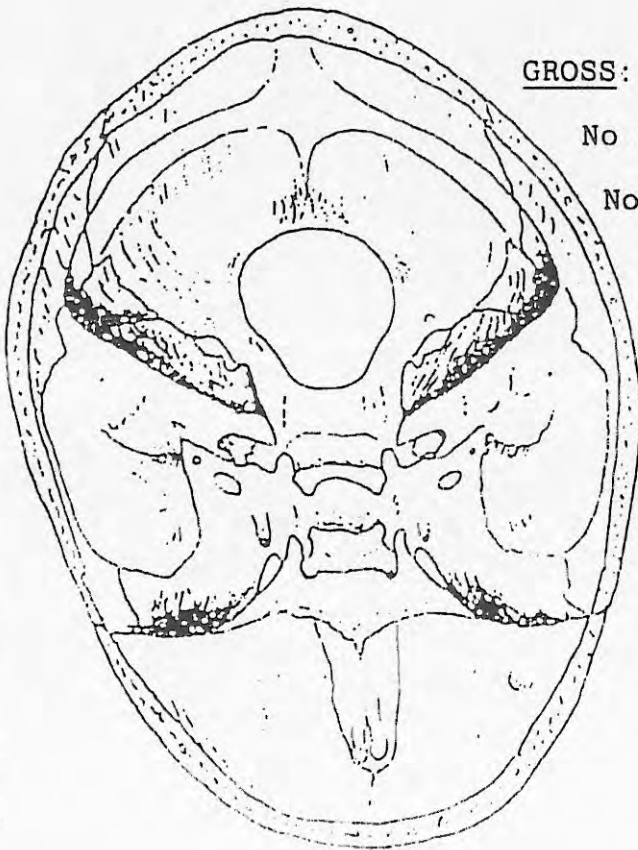


L

GROSS:

No fracture of the skull is seen.

No subarachnoid haemorrhage is present.



PART IV - BODY, GENERAL

A.11-90

Autopsy NUMBER  
A.4 - '90

DIAGNOSIS	SNOP CODE	A	DEGREE			DIAGNOSIS	SNOP CODE	A	DEGREE		
			1	2-3	4-5				1	2-3	4-5
MULTIPLE CONGENITAL ANOMALIES	M-2100	11				ELECTROLYTE IMBALANCE (Clinical)	F-1002	11			
EMYMA, GENERALIZED	M-2240	11				UREMIA (Clinical)	F-1075	11			
LEUKEMIA, GENERALIZED (NOS)	M-4000	11				DEHYDRATION (Clinical)	F-1091	11			
WHITE DIFFUSE SUPPURATIVE INFLAM	M-4160	16				GOUT (Clinical)	F-2622	11			
ARSCLOSIS, GENERALIZED	M-4174	17				ENDOCRINE HYPERFUNCTION (Clinical)	F-4101	11			
DIFFUSE GRANULOMATOUS INFLAMMATION	M-4200	18				ENDOCRINE HYPOFUNCTION (Clinical)	F-4102	11			
SARCIDOSIS, GENERALIZED	M-4651	19				DIABETES MELLITUS (Clinical)	F-4521	11			
CELLULOGEN DISEASE (NOS)	M-4710	20				BLOOD COAGULATION DEFECT (Clinical)	F-5005	11			
ACUTE DISSEM. LUPUS ERYTHEMATOSUS	M-4713	21				BRONCHIAL ASTHMA (Clinical)	F-6112	11			
POLYARTERITIS NODOSA, GENERALIZED	M-4924	21				CHROMOSOME DISORDER	M-5205	11			
ARTERIOSCLEROSIS, GENERALIZED	M-5200	21				CARDIAC ARREST (Clinical)	F-6025	11			
AMYLOIDOSIS, GENERALIZED	M-5511	21				PARAPLEGIA (Clinical)	F-7453	11			
ABNORMAL PIGMENTATION, GENERALIZED	M-5700	21				PARKINSONISM (Clinical)	F-7593	11			
HEMOSIDEROSIS, GENERALIZED	M-5731	24				COMA (Clinical)	F-7705	11			
METASTATIC NEOPLASM, GENERALIZED	M-8006	27				EPILEPSY (Clinical)	F-7801	11			
LACTEAL DISEASE, GENERALIZED	E-1000	28				MENTAL DISTURBANCE (Clinical)	F-8301	11			
POCKETTAL DISEASE, GENERALIZED	E-2000	29				HYPERTHERMIA (Clinical)	F-9031	11			
VIRUS DISEASE, GENERALIZED	E-3000	29				HYPERTENSION (Clinical)	F-9012	11			
SPONTANEOUS ENZYMIC DISEASE	F-3000	31				SHOCK (Clinical)	F-9121	11			
CYTOPLASMIC INCLUSION DISEASE	F-9343	31				SYPHILIS (Clinical)	F-9471	11			

TOPOGRAPHY				MORPHOLOGY				ETIOLOGY				FUNCTION			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

This is a copy of the original report and is not to be used for statistical purposes.

PART V - SUMMARY AND OPINIONS

A.11/90

AUTOPOST NUMBER					
7	8	9	10	11	12
A	4	-	9	0	

CLINICAL DATA

PATHOLOGIC DATA

Comments



FEE STATEMENT - PATHOLOGIST

NAME OF PATHOLOGIST: DR. O. IKEJIANI  
(Please Print)

Address: Glance Bay General Hosp. 300 South Street, Glance Bay  
B1A 1W5

Signature of Pathologist: *O. Ikejiani*

Date: June 6/90

SIN #: 240-170-001 Vendor Code #: \_\_\_\_\_

Autopsy Authorized by: Dr. J.A. ROACH  
(Name of Medical Examiner)

Date Autopsy Authorized: May 6/90

Name of Deceased: CLAYTON MILLER

Address of Deceased: New Waterford, N.S.

Date/Time of Death: May 6, 1990 A 1500 hrs.

Place of Death: Found dead with face lying in a stream in field

Autopsy #: A.4-90

Date/Time/Place Autopsy Performed: May 7/90 @ 1010 hrs.

AMOUNT BILLED BY PATHOLOGIST: Autopsy (brain examined) \$211.19  
Autopsy tissues (25 at 7.68) 192.00  
\$ 403.19

- Attach copy of Preliminary Autopsy Report to Fee Statement and mail to:

R.A. Perry, M.D.  
Chief Medical Examiner for Nova Scotia  
5788 University Avenue  
Halifax, N. S.  
B3H 1V8

*R.A. Perry M.D.*

JUN 10 1990

**FORENSIC  
LABORATORY REPORT**

**RAPPORT DES LABORATOIRES  
JUDICIAIRES**

SECURITY CLASSIFICATION, CLASSIFICATION SÉCURITAIRE
PROTECTED "A"
DATE
90-05-10
LAB. FILE NO. - DOSSIER DU LAB. N°
90H660
YOUR FILE No. - VOTRE DOSSIER N°
90-1269

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TO - À	FROM - DU
The N.C.O. In Charge Reserve Mines Detachment RESERVE MINES, N.S. BOA 1VO ATTN: CST. H.T. MARTELL	R.C.M.P. Forensic Laboratory 3151 Oxford Street Box 8208 Halifax, N.S. B3K 5L9

REFERENCE - RÉFÉRENCE

Clayton Joseph MILLER (D: 73-04-19)  
Sudden Death of  
New Waterford, N.S. 90-05-06

COPIES TO - COPIES À

GENERAL: A portion of the following exhibit was received personally from C/M S.F. Lamb of the Toxicology Section on 90-05-10:

Exhibit #1A: one vial of blood

PURPOSE: To analyze Exhibit #1A for alcohol content and other common volatiles.

RESULTS: Exhibit #1A contained 120 milligrams of ethyl alcohol in 100 millilitres of blood.

REMARKS: The portion of Exhibit #1A was destroyed in analysis.

Submitted by: *W. Westenbrink*  
W. Westenbrink, M.Sc., B.Sc. (Hons),  
Alcohol Section.

WW/sr

C-430 (84-05) 7530-21-894-0160

RCMP GRC

Dr. Perry  
**TOXICOLOGY ASSAY**

DETERMINATION	(1)	RESULT	THERAPEUTIC RANGE
THEOPHYLLINE		$\mu\text{mol/L}$	55-110 $\mu\text{mol/L}$
PHENOBARBITAL	(2)	$\mu\text{mol/L}$	65-150 $\mu\text{mol/L}$
PHENYTOIN	(2)	$\mu\text{mol/L}$	40-80 $\mu\text{mol/L}$
CARBAMAZEPINE	(2)(3)	$\mu\text{mol/L}$	33-80 $\mu\text{mol/L}$
CARBAMAZEPINE 10,11 EPOXIDE		$\mu\text{mol/L}$	
VALPROATE	(2)	$\mu\text{mol/L}$	350-700 $\mu\text{mol/L}$
PRIMIDONE	(2)	$\mu\text{mol/L}$	18-55 $\mu\text{mol/L}$
ETHOSUXIMIDE	(2)	$\mu\text{mol/L}$	280-570 $\mu\text{mol/L}$
COCAINAMIDE + NAPA	(2)	$\mu\text{mol/L}$	22-130 $\mu\text{mol/L}$
QUINIDINE	(2)	$\mu\text{mol/L}$	8-15 $\mu\text{mol/L}$
ISOPYRAMIDE	(2)	$\mu\text{mol/L}$	8-15 $\mu\text{mol/L}$
METHOTREXATE	(2)(4)	$\mu\text{mol/L}$	< 1 $\mu\text{mol/L}$
ALCOHOL (ETHYL)	X2	<i>Quantitative</i>	
ALCOHOL (METHYL, ISOPROPYL)			
CARBON MONOXIDE	(5)	% SAT'N	< 10% SAT'N
LEAD	(8)	$\mu\text{mol/L}$	
COPPER		$\mu\text{mol/L}$	
GENIC (HAIR)	(7)	$\mu\text{mol/L}$	10-25 $\mu\text{mol/L}$
IC	(8)	$\mu\text{mol/L}$	< HAIR 13n mol/g
		$\mu\text{mol/L}$	8-27 $\mu\text{mol/L}$
DRUG SCREEN	X1 (9)		
DEPRESSANT DRUGS	(11)		

DATE

May 31, 1990

 REPORT TO **New Waterford Con Hospital**  
 ADDRESS: **716 King St New Waterford N S**

PATIENT:

Miller Clayton

CHARGES

\$ 71.82

SPECIMEN(S) SUBMITTED

 BLOOD URINE STOMACH CONTENTS OTHER

FOR DRUG MONITORING:

TIME OF LAST DOSE \_\_\_\_\_

: TAKING SAMPLE \_\_\_\_\_

DRUGS CURRENTLY RECEIVING (10) \_\_\_\_\_

OTHER DRUGS WITHIN LAST WEEK (10) \_\_\_\_\_

DRUGS SUSPECTED (10) \_\_\_\_\_

COMMENTS:

E. Susnik 90/5/30

Blood: Ethyl Alcohol - 120 mg/dl

Urine: Ethyl Alcohol - 265 mg/dl

 Cocaine Metabolite )  
 Cannabinoids ) Negative

Drug Screen - No drugs detected

E Susnik

E. Susnik

for A D Fraser, Ph.D.

A. D. Fraser

# Appendix E



**PHOTOGRAPHS REDACTED**

# Appendix F

COPY

3830 - 1a St. S.W.  
Calgary, Alta.  
T2S 1R5

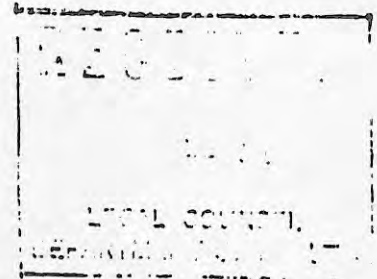
FOR [unclear]

CONFIDENTIAL

February 9, 1994

LEGAL COUNSEL, N.S. DEPT. OF HEALTH

Wayne D. Cochrane, Q.C.  
Legal Counsel  
Department of Health  
12th Floor, 1690 Hollis St.  
P. O. Box 488  
Halifax, N.S.  
B3J 2R8



Dear Sir:

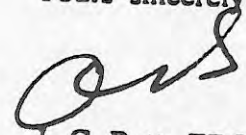
Exhumation and Autopsy: Body of Clayton Miller  
Performed at Glace Bay, N.S., December 28, 1994

Please find enclosed my report in duplicate. I forward my fee and disbursement account under separate cover.

It is important to acknowledge with thanks the RCMP GIS and Identification Sections of Sydney, N.S., notably Cpls. G. Taker and J. Leadbeater; staff at the Glace Bay Community Hospital, Drs. Ikejiani and Perry; and the (RCMP) Forensic Sciences Laboratory in Halifax. I was pleased to have the arrangements of S/Sgt. Arsenault, RCMP, and also Greg Sparling from the hospital in Sydney. As well funeral director (and sons) was helpful and accommodating to a difficult task, made the worse by poor weather.

I was honoured and pleased to be engaged for this assignment and thank you particularly for that.

Yours sincerely,

  
J. C. Butt, FRCPath  
Forensic Pathologist

JCB/jz

# COPY

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Nova Scotia

Minister of Justice  
and Attorney General

PO Box 7  
Halifax, Nova Scotia  
B3J 2L6

909 424-4044  
802 424-4020

Our file no:

**AUTHORIZATION BY THE  
ATTORNEY GENERAL  
PURSUANT TO SECTION 57 OF THE  
HEALTH ACT**

**The Health Act provides in part**

" 57 No person shall disinter or remove a buried human body except at the instance of the Attorney General unless with the written permission of the medical health officer for the place in which the body is buried."

Pursuant to the authority vested in me as Attorney General, including that vested in me by section 57 of the Health Act, I hereby authorize and direct that the body of Clayton Miller be disinterred from its resting place in St. Joseph's Cemetery, Lingan, and taken from the Cemetery for an autopsy to be performed by and under the direction of Dr. John C. Butt.

DATED at Halifax, Nova Scotia, this 23rd day of December, A.D., 1993.

William Gillis  
Minister of Justice and Attorney General

## INTRODUCTION

The second autopsy on the body of Clayton Miller was an opportunity to review, in particular, the following matters which were not clear following the initial autopsy of 7 May, 1990:

- 1) Whether there were fractures of the long bones, rib cage and pelvis - x-ray examination was accomplished on the occasion of the second autopsy.
- 2) An opportunity to review parts of the body vulnerable to injury, notably the neck, and the limbs, as well as re-inspecting the skull for fractures and reviewing the integrity of the chest and abdominal cavities. This augments the x-ray examination.
- 3) Clarification of the pathology of the lungs. This review, was facilitated by the good preservation of the viscera, i.e., lungs, despite passage of time (through chemical embalming treatment of viscera contained in a bag) thus presenting much the same pathological (including microscopic) material as for the initial post-mortem examination. There was opportunity to clarify issues surrounding the diagnosis of emphysema ("hyperinflation") and the matters of asphyxia and drowning.
- 4) Clarification of the toxicology, notably the issue of drugs.
- 5) The medical cause of death.

This second autopsy provided opportunity to review circumstances surrounding the finding of the body, original autopsy conclusions, and finally to address these and other issues related particularly to the medical cause of death and the manner of death, i.e., accidental or otherwise. The review provides further and fresh perspective, bearing upon allegations that have been made about this death since 6 May, 1990.

REPORT OF POST-MORTEM EXAMINATION

December 28, 1993

at

Glace Bay Community Hospital

Mortuary

Glace Bay, Nova Scotia

Dictated at approximately 9:10 a.m. in the presence of  
of New Jersey, U.S.A.; Dr. M. Baden, consultant pathologist  
accompanying New York City; Greg Sparling a pathology technician from Sydney  
City Hospital, Sydney, Nova Scotia; Cpl. G. Taker, RCMP GIS Sydney Subdivision and Cpl.  
James Leadbeater, RCMP Sydney Subdivision Identification Section.

The body described herein was exhumed in the presence of Messrs. Taker and  
Leadbeater on 27 December, 1993, from a churchyard cemetery grave at Lingan, Nova  
Scotia. Later on December 28, 1993, the original funeral director,  
indicated that the body that he saw exhumed at St. Joseph's Cemetery, Lingan, Nova Scotia,  
on December 27, 1993, was that of Clayton Miller, whom he had been responsible for  
interring in the same place in May of 1990.

In the presence of Cpl. Taker two seals from the mortuary door were removed at  
approximately 10:40 a.m. and a body recovered from the refrigerated space by Greg  
Sparling. A mortuary "cot" containing the body was removed from the space and a bag of  
taped material, said to be "viscera", separated from same. Further material removed from  
over top of the body consists of a length of 1½" wood and some casket lining. A cloth was  
taken from the mortuary cot and the body seen as that of an unidentifiable subject clad in  
a sweater and corduroy style trousers.

A number of small loose items were apparent over the upper part of the body,  
including a gold colored ring, a number of religious medals in part attached to small chains  
or bracelets, a small brooch-like object appearing to be two shoes, a loose, partly broken  
loop of metal in a ring shape, a signature ring identified with the initial "G", and rosaries  
(2), plus a crucifix on a chain. Beneath the shirt a further medal (separate) was located  
together with a crucifix, and two other metals on a chain. A partly discolored \$5.00 bill was  
also recovered. Additionally a watch was present on the left wrist.

Next the body was photographed by Cpl. Leadbeater. At approximately 11:10 a.m.  
Moir McPhee and Marilyn Edwards, x-ray technologists, arrived with a portable x-ray  
machine and the body was x-rayed beginning with the head, which detached readily on  
account of decomposition, with most of the cervical spines falling free.

The body was measured at 167 - 169 cm. No scale was available so no attempt was  
made to weigh the body.

REPORT OF POST-MORTEM EXAMINATION  
(Continued)

Clothing consists of a pull-over sweater, ribbed at the collar neck (crew) and cuffs, a shirt, a leather tie, a pair of corduroy trousers and underpants.

EXTERNAL EXAMINATION

Generally the body showed advanced decomposition, such that the head had parted from the trunk of the body through a complete disarticulation through decomposition of the muscle coverings and ligamentous portions of cervical spines. Additionally, the flesh from the hands was virtually absent and the hands had disarticulated, leaving the bones of the hands present on the abdomen where the hands had rested in the casket.

The viscera was presented in a separate package which had been reinforced following exhumation and which upon opening indicated a sweet, rather strong smell, suggesting a chemical preservative such as embalming fluid.

HEAD AND NECK

There was no clear indication of facial features. The face showed a post-mortem white fungus deposit (seen in patches over the sweater, as well). The head was x-rayed and the dentition noted to be entirely natural apparently without restoration, a few teeth were missing, with the laxity of the teeth within the sockets (a post-mortem change) unquestionably the reason. Sulphide staining was noted liberally on many of the teeth and around the dental sockets, including those where the teeth were missing. This black color was prominent on the outer table of bone of the skull. Some amorphous pasty substance was removed from the head, the remains of the brain.

SKULL

- (a) A close examination, of the inside of the skull revealed no evidence of fracture, old or recent. The inner ears were opened and thought to be free of hemorrhage externally and within.
- (b) In the neck anteriorly, the small bones comprising the unfused hyoid were examined and found to be without evidence of injury, notably fracture. These three separate pieces of hyoid were consistent with the age of the deceased.

The cervical spines were normal.



REPORT OF POST-MORTEM EXAMINATION  
(Continued)

- (c) Examination of muscle tissue over the anterior larynx, notably over the thyroid and cricoid cartilages, was noted to be normal and reasonably intact, and did not show evidence of hemorrhage. Within the larynx the vocal cords were intact and mucosa covering same and extending down into the trachea, indeed into the bronchi, noted to be normal, with no evidence of petechial hemorrhages. (This material recovered from the viscera bag had been preserved by the embalming fluid present.)

TRUNK

The rib cage, was partially collapsed. X-rays were taken before this inspection and appeared normal (see appendix "A"). Within the thoracic cavity was cotton waste material together with sawdust, both acting as a filler and absorbent material (part of the funeral director's process).

No organs were present in the abdominal or thoracic cavities, having been removed to the viscera bag following the initial post-mortem examination and/or embalming process.

THE EXAMINATION OF THE ORGANS

The following organs were found within the bag (in addition to the larynx described above):

- 1) Lungs - Lungs weighing 400 and 410 grams, the right lung had previously been dissected insofar as a single block of tissue of approximately 30 - 50 grams had been removed. Neither the bronchus nor radicals of the bronchial tree had been opened and the lungs had not been otherwise dissected except as above. The lungs were noted to contain some frothy fluid which exuded on pressure through the undissected bronchial opening and, as well, on the cut surface of both lungs upon pressure.

It was noted that the lungs on cut surface generally presented a dry, and well preserved appearance and were *not considered waterlogged*. There were no petechial hemorrhages on the pleural surfaces of the lungs. There was no evidence of trapped air in the lungs, e.g., as for asthma (hyperinflated). Photographs were taken of the lungs following the dissection.

- 2) Heart - The heart had been previously opened through both its right and left sides. The coronary vessels however, had not been dissected and the right and left coronary arteries were determined to be reasonably patent through further examination. The valves of the heart were normal.

REPORT OF POST-MORTEM EXAMINATION  
(Continued)

- 3) Abdominal viscera - Abdominal viscera inspected consisted of the stomach, which showed a well preserved rugal pattern without evidence of hemorrhage, a pancreas which was not sufficiently preserved for comment, a small and a large bowel which were then opened and normal. Upon opening, a small quantity of greenish fluid was found in the small bowel and the large bowel contained some well formed stool.

The liver was recognized as a single piece of tissue with some surface cuts of 5-8 cm depth. Further dissection of the liver at this time revealed a brown "cortex" of preserved liver and within same a central pinkish area (simply lacking uniform fixation). There were no other remarkable features.

The gallbladder was still "pliable" and approximately 2 cc of foamy, watery, frothy fluid was removed by syringe and taken for toxicology, as was approximately 300 g of the liver.

The spleen was found and was normal.

The adrenal glands were not found.

THE EXTREMITIES

The limbs were x-rayed. Portions of the feet, including the toes, were not found at this dissection. In the lower legs and in virtually the whole of the arms, the remaining flesh was esterified (adipocere) creating a moderately firm waxy material replacing some of the skin and subcutaneous fat while much of the remaining muscle mass in the arms and legs was not visible. That muscle which remained in the arms was "pasty" and pink in color. There was no evidence of bruising, considering however, the decomposition.

In the thighs and buttocks muscle bulk was determined to be covered by a substantial quantity of up to 4-5 cm of the esterified fat (adipocere). Within the muscle substance in these areas no evidence of bleeding (bruising) was encountered, again considering decomposition.

A preliminary review of the x-rays of the whole of the exhumed body revealed no evidence of old nor recent injury to bone. That is to say, there were no fractures determined at this point (see appendix A report of Dr. R. MacDonald).

REPORT OF POST-MORTEM EXAMINATION  
(Continued)

At the end of the examination the following tissues were retained:

- 1) Approximately 12 cm of the mid shaft of the right femur (diatom testing)
- 2) Four portions of lung, two sections of the heart (histology)
- 3) One portion of liver approximately 300 g and an aliquot of fluid from the gallbladder (toxicology) - the latter two items sealed and placed in the hands of Cpl. Taker, RCMP (as above) with instructions that same be delivered to the RCMP Forensic Science Laboratory in Halifax, Nova Scotia for toxicology testing. (See report Appendix "B").

Throughout this examination the first mentioned two persons were present, with cameras and dictation equipment. The procedures were concluded approximately 2:30 p.m. and at 2:40 p.m. At the conclusion of the examination the remains were returned to a new casket, which was closed in my presence.

Please refer also to Appendix "A" - X-ray report.

## MICROSCOPY

"A"

### From (Second) Exhumation Autopsy Sections Labelled JCB-1994

Material taken from the body of Clayton Miller and processed at Foothills Hospital, Department of Histopathology, Calgary

1. LUNGS

Four (4) exhumation "sections" were prepared by H&E stain. Three of these sections contained neither fluid nor inflammatory change and were considered to be normal. In the fourth section, also within normal limits, there was slight engorgement of vessels (see over re first autopsy). There was no evidence of foreign material.

2. HEART

Two (2) sections were prepared. Both show slight unevenness in staining - a processing artifact. There is some engorgement of vessels. The myocardium is healthy, notably free of any evidence of inflammatory change.

The sections are normal.

[Unstained sections from this second autopsy were processed in an attempt to determine whether some fluid seen with the naked eye, in the lungs, was simply due to the cavity (embalming) fluid. No dye (if such was present in the cavity embalming fluid formula) was taken up in the sections, or possibly was removed during the histopathology processing in preparation of the two heart and four lung sections. No conclusions can be drawn from this.]



"B"

Review of Histopathology (Microscopy) from the First Autopsy, May 1990

1. LUNG - Three sections taken from the right lung and two from the left lung were reviewed . The sections are labelled A-11-90.

In general the lung tissue is well inflated with the possibility of post-mortem (laboratory) fixation under pressure was considered. Limited fluid is present and no distinctive inflammatory response nor foreign bodies seen. One section of the right lung shows some patchy pleural thickening and a mild chronic inflammatory change including slight scarring. In that same area isolated, i.e., patchy, emphysema is seen.

A similar appearance is seen in the two sections taken from the left lung.

Some pigmented macrophages, possibly representing smoking, are present. The bronchial epithelium is considered normal and the lungs are essentially normal. There is no evidence of foreign material.

2. HEART (5 sections)

Preparation artifact is prominent in the sections from the left and right heart (more so). Vessels show some congestion but there is no myocardial abnormality nor infiltration in the interstices with polys or mononuclear cells. Sections are deemed normal (considering the processing artifact).

3. KIDNEYS (four sections)

Some engorgement, otherwise normal.

4. LIVER (two sections)

No inflammatory nor fatty change. Sections are normal.

5. ADRENAL GLANDS (two sections)

Sections are normal; notably there is no hemorrhage.

6. SPLEEN

The red pulp is scant within the spleen. Otherwise normal.

7. PANCREAS (three sections)

There is early autolysis. Sections are deemed normal. In particular there is no fatty necrosis.

8. THYROID (two sections)

Normal.

9. BRAIN (four sections)

See appendix C - report of Dr. B. Curry.

SYNOPSIS OF HISTOLOGY

Essentially the sections from the first and second autopsy are normal. The lungs have been considered carefully and fall within the normal as well, despite two different pictures presented by the lung tissue. Two slides with the naked eye show engorgement and others (three sections) are essentially normal and may be slightly emphysematous, or what has been called perhaps more appropriately, hyperinflated. There is scant intra-alveolar fluid and very little evidence of intra-alveolar hemorrhage.

The lung sections are not suggestive of "wet" drowning, i.e., the inhalation of water, nor are the sections representative of natural disease. When taken with the gross findings, the lungs appear not to represent a distinctive mechanical asphyxia which in pulmonary parenchyma is likely to produce subpleural and intra-alveolar petechial hemorrhages ("Tardieu" hemorrhages).

## DIATOM STUDY

At the time of the exhumation autopsy a 12 cm length of mid shaft of the femur was removed, under my supervision by Greg Sparling mortuary technician and placed in two clear plastic bags, i.e., one within the other. Additionally, two aliquots of tap water from the New Waterford funeral home which prepared the body were obtained through the proprietor. This material was taken to Calgary and remained in my custody, the bone being frozen.

During the week of January 31, 1994, at the Health Sciences Centre, Faculty of Medicine, University of Calgary, I prepared marrow from the cavity of this bone for diatom examination.

### METHOD

After potentially contaminated marrow adjacent each saw cut (end) was discarded, about 15 grams of marrow was submitted for testing using methods described in references 1 and 2 below. Modification of the former method was made to facilitate examination of the treated specimen under scanning electron microscope (SEM Hitachi Model S-450).

A control specimen was prepared using reagents only, i.e., no marrow, otherwise treated identically, but no water specimens were prepared at this time (see conclusions).

### RESULT

Dr. Frances Green, a specialist in respiratory pathology, examined two "buttons" containing test and control specimens under SEM approximately 2200x in my presence on February 4, 1994, and did a further examination of a test specimen February 10, 1994. All specimens were free of diatom material (frustules intact or broken).

### CONCLUSIONS

A literature review of diatoms and drowning does not give clear conclusion of the efficacy of this test. Our negative result, however, does add to a preponderance of evidence in this case against inhalation of water.

While a further consideration is that diatoms did not exist in the water at the creek site, it is most reasonable to conclude that this test helps confirm other findings against drowning; notably the absence of water in the chest x-ray and gross examinations at the first and second autopsies.

### REFERENCES

- 1) Antonenko, N.E.; Ferris, J.A.J., "Diatom Analysis in the Determination of Death by Drowning. Journal Canadian Forensic Science Society.
- 2) Pachar, J.V.; Cameron, J.M., "Scanning Electron Microscopy: Application in the Identification of Diatoms in Cases of Drowning". Journal of Forensic Science, 1992 May; 37(3) 860-6.

Site Visit

December 28, 1993

In company with \_\_\_\_\_ of Physical Evidence Consultants, and his forensic pathology consultant, Dr. Michael Baden, Cpl. G. Taker, RCMP, and Cpl. James Leadbeater, RCMP, I attended a site near the town of New Waterford, Nova Scotia.

Significant snow covered the area, but not enough to preclude an examination of the "rock" which comprised the flat land and slope leading towards the creek in question (at this time frozen and snow covered).

The slope was noted to be of approximately 30 - 35° and the land above leading to it virtually flat. The length of the slope appeared to be 25 - 35 feet with a thicket of shrubs occupying an area at the base of the slope running along the creek and also on the far side.

Mineral/rock debris (detritus) on the slope and adjacent area was clearly evident and apparently represented some type of fill, perhaps mine "tailings". In my impression this reasonably matched the quality of the material seen in the photographs taken at New Waterford Hospital May 6, 1990 and described elsewhere in this report.



INTERPRETATION OF POLICE PHOTOGRAPHS TAKEN BY  
CPL. JAMES LEADBEATER AT NEW WATERFORD COUNTY HOSPITAL  
MAY 6, 1990

These photographs apparently represent the only photographic record taken after the body was discovered, and do not include the body at the site of discovery.

(a) Photographs of Clad Body

The photographs taken show the clad body of an adolescent white male wearing a red sweatshirt with a fawn, unidentifiable pull over garment beneath, a pair of black denim "jean" style trousers, and a pair of "deck" shoes with rubber soles, front laced through three paired eyelets. Light colored socks are identified.

A detritus of small particles is seen scattered on the front of the body, including over the trousers, notably in the thigh and knee area on the right, and to a much lesser extent in the thigh area in the front on the left of the trousers. Similar, apparently mineral detritus is seen over the front waist area, including the upper trousers, a small adjacent area of exposed abdomen, the exposed fawn undergarment, and the red sweatshirt. This material is not seen over the back of the trousers, nor the back of the red sweat shirt. It is also notably absent from the top of the shoes, the lower trousers and the exposed area of sock. (There is no evidence that detritus has been present in this area insofar as it is not seen on the white sheet adjacent these areas (lower legs, feet).)

A scatter of detritus is seen on the face and neck but it is not apparent in the hair or neck posteriorly.

This detritus in the photographs appears to be similar to that mineral/rock material seen by myself in company with others when we visited the site nearby the creek on December 28, 1993. At that time the brown to black material as represented in the photographs taken at the New Waterford Hospital, 6th of May, 1990, was seen to be predominant on the adjacent slope and flat area above the slope. (see page 12)

(b) Photographs of the Unclad Body

On the unclad body the mineral is seen in exposed areas, including the face, neck anteriorly and a portion of the trunk, notably the abdomen. It was also present on the back of the hands and along the right side of the torso and over the upper back and buttocks but sparing the lower thoracic and lumbar areas of the back. Contamination of some areas (e.g., posterior) cannot be ruled out in the course of removing clothing and positioning the body for photography, i.e., detritus which had dropped to the sheet would contaminate the heretofore clear areas that had been covered by clothing.

In the lower extremities this detritus is seen on the left thigh in the photographs and again represents flakes of blackish brown material similar to that which I saw at the site nearby where the body was found in 1990.

(c) Discoloration of the Body and the Issue of Injury

Blotchy red discoloration seen on the body, largely on the anterior surface, represents natural post-mortem hypostasis. The pink color is commonly seen with exposure, often as a post-mortem "artifact" since in the presence of cold, hemoglobin dissociation tends to shift left and what otherwise may have been slightly bluish post-mortem lividity would become pink in the climatic conditions experienced in the area in early May, 1990. (The true post-mortem color may be represented more by the right hand and the fingers thereof which is seen in photographs #12 and 13, presently as a slightly bluish tint as opposed to pink.) A slightly bluish color is the most commonly seen post-mortem color of skin.

The back of the trunk again shows no evidence of injury and here livid staining is absent, suggesting that the body has been in a prone position since death.

In the lower extremities there is circumferential livid staining seen most prominently in the thighs anteriorly, to a somewhat lesser extent on the posterior of the thighs, and equally on the fronts and backs of the lower legs. The lower limbs show no evidence of injury, but a "blush", perhaps a bruise, is seen slightly to the outside of the left leg below the knee.

The genitalia are not shown on the photographs. The buttocks are unremarkable.

Points of pressure (post-mortem) are seen on the knees and just above same, particularly on the left and also over the chest and upper abdomen in a symmetrical pattern in the latter site. These represent contact points where the body has been in touch with firm surface(s) which prevent the passive, gravitational filling that is represented by the term post-mortem "hypostasis" or "lividity".

Conclusions from Photographs of May 6, 1990

Photograph representation of the body and clothing are deemed adequate for this interpretation, i.e., represent all areas of the body with the exception of the genitalia.

1. The post-mortem appearances, as interpreted from the photographs, show what appears to be a mineral, as opposed to botanical, detritus with flaky brown and black material similar to that seen at the site nearby where the body was found.
2. The post-mortem attitude of the body would appear to have been prone with livid staining on the anterior trunk and contact points indicative of this, while the lower extremities would appear to have been *somewhat* dependent in relationship to the rest of the body, i.e., legs lower than the head and trunk since a circumferential livid staining is apparent in part to the thighs, and prominently to the legs below the level of the knees. At the latter sites (knees) there are again contact sites of blanching attesting to the prone position of the body.

INTERPRETATION OF POLICE PHOTOGRAPHS  
(Continued)

The post-mortem gravitational change involving the blood settling circumferentially around the lower extremities and nearly symmetrically on the face should be carefully compared with recollections of the body at the site by *objective* first observers.

3. It is plain that there are no significant injuries on the body with only a slight "blush" towards the zygomatic process (cheek bone) on the right side, of little if any significance. Photographs show detail quite well, e.g., comedones are present on the skin of the upper anterior chest. The hair appears wet, as does at least part of the body, probably more so on the front.

The face shows livid staining on the left and right in a symmetrical pattern around the eyes, completely involving the nose, while a blanched area with light mineral detritus is seen about the mouth (on the right) and chin. No serious injury is seen on the head with potential only for a small bruise on the right cheek as above.

4. In the right hand, seen in photograph #1 of the book of photos, and photograph #5, there is a suggestion of a "washer woman" effect to the skin of the hand on the right side, but this effect is not apparent elsewhere, including in the feet. There may be some reason to suppose that the body has been damp, but not "sodden" with water after death. Again, there is no injury to the hands but the palmar surfaces are not clear.

5. There is no obvious post-mortem decomposition, which is consistent with the weather at the time, notably cold and damp. The pattern of post-mortem lividity says little about the time of death, and would have taken six hours at least to develop.

It must be reiterated that in the post-mortem photographs, as per the pathologists report, there is no significant injury on the body. There is no evidence of blood, significant blunt trauma, while photographs of the neck make it highly unlikely that any pressure has been applied to this area. Furthermore, it is well known that blunt trauma after a period of 24 hours post-mortem becomes more visible in the atmosphere/temperature in which this body was discovered. That is to say that the cold would give bruises and abrasions in these circumstances a better chance to be represented clearly in the photographs.



## CONCLUSIONS

The issue of male adolescent risk taking is well known, as is the relationship between alcohol and risk taking in the general population. In my opinion this death is clearly related to both risk taking, alcohol (including inexperience with same) and hypothermia.

While the scene circumstances and element of inhaling water remain moot points, I do not believe water is a factor through either wet or so called "dry" drowning in this case. The question of the deceased's nose and mouth being *clearly* submerged in the water has not been properly addressed. The father has stated as much, and there is suggestion as well from the witnesses McKinnon and Brushett. Regrettably, there is no scene photography showing the body since it was disturbed by the distraught father before an RCMP identification photographer could arrive.<sup>1</sup> The father has stated with some certainty that the nose and mouth were clearly submerged, but his state of mind at the time on the 6th of May, 1990, and passage of time mitigates against accurate recall.

The question of exposure is plain in playing a significant role in this death. Here, alcohol, which increases the living body's cooling, and the connection with cold water, indeed even the snowy creek area has played a role, as has overnight precipitation and cold (below 0°C) temperatures.

The obvious absence of injury has to be addressed as an important negative feature in this case. There was no evidence of wounding of any substance on the body, in the photographs I reviewed, nor in the first pathologist report or his recollection when Dr. Baden and I spoke with him 28 December, 1993. There was never any evidence of deep damage as would be seen from fatal trauma. Furthermore, subsequent exhumation x-ray studies of the skull, chest, pelvis and long bones has proved negative, i.e., no fractures.

In the matter of asphyxia, there simply is no evidence for this. Insofar as mechanical asphyxia is concerned, there was clearly no significant neck injury, nor was there evidence at the time of autopsy, or upon review microscopically of any degree of asphyxia in the lungs or brain. Congestion seen in most of the tissues (microscopic) is a non-specific and unhelpful feature one way or the other.

The toxicology is helpful in this case. It tells of heavy drinking in a young, immature male who was neither of heavy build or nourishment with a height in the vicinity of 5'6" and a weight estimated at about 120 - 130 lbs. The initial post-mortem toxicology from two separate laboratories has indicated a blood alcohol level at death that clearly had been higher and in accordance with witness (McKinnon) remarks about intoxication. According to the post-mortem urine alcohol level the values suggest that drinking had ceased some hours before<sup>2</sup> and that Clayton Miller had at least his share of the rum consumed earlier in the evening, 4 May, 1990, and perhaps augmented it with further drink in the hour(s) ensuing before the police attended at the "nest" and the crowd, together with Miller, dispersed. The alcohol profile (the value in blood about half the urine alcohol

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<sup>1</sup> Apparently there is no photographer, or capability for photography with local police.


<sup>2</sup> This extrapolation might not be *completely* accurate in relationship to the true specific gravity of the urine (unknown).



CONCLUSIONS  
(Continued)

concentration) is commonly seen post-mortem in exposure (hypothermic) deaths. According to the pathologist, Dr. Ikejiani, there was a strong alcohol smell to the stomach on Monday, May 7th, 1990 when the autopsy was done, even though the stomach was empty. (This does not necessarily mean alcohol was still present in the stomach.)

In these matters I agree with the comments of W. Westonbrink, the toxicologist of the Forensic Science Laboratory (RCMP) in Halifax, who provided a good review of alcohol metabolism, exposure and behaviour in relationship to the post-mortem alcohol levels in this decedent. It is unlikely that other drugs were involved as they were neither found at the time of initial post-mortem toxicology, nor on further toxicology (conducted by a different laboratory) on fluid taken from the gallbladder, and liver tissue taken at the exhumation autopsy.



---

J. C. Butt, FRCPath  
Forensic Pathologist

SUMMARY  
RE: DEATH OF CLAYTON MILLER  
near New Waterford, Nova Scotia  
May 4-5, 1990

1. Time of Death

Overnight May 4, 1990. Hours post-mortem when found precisely unknown. There is never a reliable method (apart from eye witnesses to a death) for determining this, especially when outdoors where ambient temperature is variable as in this case.

2. Anatomical Cause of Death

There are no *positive* anatomical features of any consequence in this case. Under the circumstances this is not unusual nor suspicious. There is no evidence of drowning, other form of asphyxia, nor injury.

Exposure (hypothermia) is deemed the cause of death - which condition frequently shows no post-mortem abnormalities. Post-mortem alcohol levels are high and obviously were even higher in the blood during the terminal period near the creek.

The preponderance of negative features is reassuring under the circumstances.

3. Manner of Death

Intent is not an issue; *the deceased has neither killed himself nor been killed.*

In some jurisdictions the death might be ruled *accidental* whereas in others it might be considered "unclassifiable" based on the underlying cause being alcoholic intoxication.

The manner of death in my opinion is *not* "undetermined"; that means where the death is not determined to be homicidal, accidental or suicidal.

The exhumation autopsy itself provides no evidence to dispute *facts* already known but an opportunity to review the circumstances objectively.

- 1) Clayton Miller was drinking heavily in a short period for a youth of his experience and size. A companion thought him to be "pretty well drunk". Post-mortem toxicology shows substantial alcohol and no other chemical.
- 2) Clayton Miller, apparently while intoxicated, dispersed by police, ran away at a place where the terrain was somewhat rough, irregular and in part moderately heavily overgrown. It was near dusk, possibly even dark, he was lightly clad, and it was cold and to become more so, in fact below freezing overnight on May 4.
- 3) There were no significant injuries on Clayton Miller's body as seen by several reliable observers beginning at the local hospital and concluding with two autopsies.

Regrettably unsubstantiated comments have been widespread in this regard and have distorted public opinion about the medical cause and thus the manner of death.

- 4) There is no anatomical evidence whatsoever to indicate drowning of any sort, despite opinions to the contrary (from the emergency room doctor and the original autopsy pathologist) albeit one acknowledges the fact that the body was found (partly) in *shallow* water.
- 5) Clothing on Clayton Miller, shown well in photographs taken by RCMP on May 6, 1990, is not significantly displaced, torn or otherwise suspicious. Detritus on the body in the photographs is in keeping with surrounding fine rock/earth, and distributed on the anterior of the body, consistent with livid stains, and the prone position of the body when found May 6.
- 6) Post-mortem changes on the body give little evidence about time of death. Post-mortem toxicology (alcohol) studies on the blood and urine suggest Clayton Miller died overnight May 4, 1990, likely on May 5, 1990.

This alcohol "profile" is one commonly seen by toxicologists and pathologists in hypothermic deaths involving drinking.

- 7) Anatomical features on the body are *not* in any way suggestive of involvement of other person(s) and suit where the body was recovered, the element of time, and circumstances known up to Clayton Miller's disappearance.

This is important since conjecture again has viewed these circumstances as suspicious, indeed a "conspiracy" when they are to the contrary when considered together.

**REPORT OF X-RAY EXAMINATION OF EXHUMED BODY**  
**Appendix "A"**





# Foothills Hospital

1403 - 28 St. N.W.  
CALGARY, ALBERTA T2N 2T8  
(403) 870-1110

January 7, 1994

Dr. J. C. Butt  
Pathfinder Forum  
3830 - 1A St. S.W.  
Calgary, Alta.  
T2S 1R5

Dear Dr. Butt:

RE: Clayton MILLER

Autopsy films of the right and left arms were made. These films show that both humerus are seen, and both radius and ulna. There is subluxation of the elbow joints bilaterally. There is no evidence of a fracture of any of these bones in the arms. The films of the humerus and of the tibia and fibula identify these bones and they are intact without evidence of fractures. This is a single AP view of the pelvis to include both hips. These show that both innominate bones are normal and the upper femurs are normal. The hip joints are intact. The proximal radial epiphysis is just fusing. The proximal tibia epiphyses are just starting to fuse indicating that the patient's age is somewhere between 16 and 18 years, probably around 16. The AP view mar's of the chest demonstrates that there is complete opacification of the thoracic cavity. As far as I can tell the ribs are intact here and the clavicles are normal. I am unable to see the scapula on this film. A previous film made of the chest on May 6, 1990 demonstrates that both lungs are completely aerated. There is no evidence of pulmonary edema. The cardiac contour is normal. The rib cage and the clavicles and scapula, as far as I can see, are perfectly normal on this film. There is a basal skull film. There are films of the os calcis, the talus and the navicular of both feet. The single basal view of the skull cannot rule out any evidence of fracture but the AP and lateral of the skull made in May of 1990 show the skull is perfectly normal.

Sincerely,

  
Dr. R. MacDonald

Department of Medical Imaging

RM/jz

**REPORT OF TOXICOLOGY OF LIVER AND FLUID FROM GALLBLADDER  
FROM SECOND (EXHUMATION) AUTOPSY  
by Toxicology Section, Forensic Laboratory, Halifax  
Appendix "B"**

**LABORATORY REPORT**

**JUDICIAIRES**

DATE	PROTECTED "A"
LAB. FILE NO. DOSSIER DU LAB. N°	94-01-13
VOTRE FILE NO. VOTRE DOSSIER N°	90H660
	94-32

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TO - A	FROM - DU
The N.C.O. i/c Sydney Det., R.C.M. Police, Sydney, N.S. Attn: Sgt. D.D. MacDonald	R.C.M.P. Forensic Laboratory 3151 Oxford Street Box 8200 Halifax, N.S. B3K 5L9

**REFERENCE - REFERENCE**

Clayton Miller - Exhumation of body -  
Lingan, Cape Breton Co., N.S.

**COPIES TO - COPIES A**

**GENERAL:**

The following exhibits were received at this Laboratory via Registered Mail #RR 156 134 21X CA on 94-01-07:

- Exhibit 1: a vial containing bile.
- Exhibit 2: liver tissue.
- Exhibit 3: Permofax Cavity fluid.
- Exhibit 4: Water from funeral home.

**PURPOSE:**

To examine Exhibits 1 and 2 for drugs.

**RESULTS:**

No drugs were detected in Exhibits 1 and 2.

**REMARKS:**

An examination for drugs does not include hormones, vitamins, metals, antibiotics, cardiac glycosides and lysergides.

**DISPOSITION OF EXHIBITS:**

Kindly advise if you wish Exhibits 1, 2, 3 and 4 destroyed here.

Submitted by: *S.F. Lamb* C/M  
 S.F. Lamb, B.Sc. (Biochem.)  
 i/c Toxicology Section

SFL'kgt

C-100 (88-07) 7530-21-000-0160



Car

**REPORT OF NEUROPATHOLOGIST ON MICROSCOPIC SECTIONS OF BRAIN  
FROM ORIGINAL AUTOPSY, 8 MAY 1990  
Appendix "C"**





FH No. : 80028109 NAME: MILLER, CLAYTON

TISSUE REPORT

FH No.....: 80028109  
AHCIC.....: NS 11011071503  
Alt. PIN....:

Accession  
Number....: CNS-01617-94

Unit #.....:

Patient...: MILLER  
          : CLAYTON

Sex.....: M  
Age (DOB): 73/04/17  
          20 YRS 10 MWS

Hospital...: DR. J. BUTT [0054]

Surgery...:  
Received..: 94/02/02  
Reported..: 94/02/02

Physician..: PERRY, R

Surgeon....: BUTT, J [0700]  
Pathologist: B. CURRY, M.D. [0394]  
Resident....:

\*\*\*\*\*

Specimen...: CONSULT - YOUR CME# A-11-90 (THREE SLIDES)

I reviewed three slides of cerebral cortex with some subjacent white matter; one of blocks contained two portions of brain tissue on it. All blocks show tremendous processing artefact, as evidenced by tremendous artefactual vacuolation involving cellular elements and neuropil. Some of the neurons show a pinky appearance; they are pale but generally not contracted; the appearances suggest autolysis rather than asphyxia. There are some extremely contracted neurons. Vessels are congested with small amount of red cells in the perivascular spaces.

My interpretation is as follows: In death due to hypothermia, I would not expect hypoxic/ischemic neuronal changes, as the mode of death would include gradually decreasing blood pressure with decreasing cerebral circulation. There would be no opportunity for hypoxic/ischemic changes to develop (that is, acidophilia of neurons) as recovery of blood pressure and reperfusion of cerebral circulation is essential to the development of the morphological changes of hypoxia/ischemia. The appearances here are best described as agonal and autolytic with an asphyxial element (congestion of blood vessels with diaphoresis of red cells) and are more suggestive of a slow death such as would occur with hypothermia, rather than an acute death which you might expect to be associated with drowning.

DIAGNOSIS: CEREBRAL CORTEX - AGONAL AND AUTOLYTIC CHANGES ONLY.

CODE: T00000 P3085  
      TX2000 M72000  
      TX2000 M54310

*Beppanda*

\SM  
94/02/02

cc CME Office, Halifax, N.S.

# Appendix G

+2112122794468

MICHAEL BADEN MD

211 F02

MAY 17 '94 12:57

MICHAEL M. BADEN, M.D.  
143 EAST 5ND AVENUE  
NEW YORK, NEW YORK 10008

TEL (212) 626-3266

FAX (212) 679-4468

REAUTOPSY REPORT

Decedent: Clayton Miller

Date last seen: May 4, 1990

Date found: May 6, 1990

Date of autopsy: May 7, 1990

Place of autopsy: New Waterford  
Consolidated Hospital,  
Nova Scotia, Canada

Prosecutor: O. Ikejiani, M.D.

Coroner: Dr. J.A. Roach

Date of reautopsy: December 28, 1993

Place of reautopsy: Glace Bay Community  
Hospital, Glace Bay,  
Nova Scotia, Canada

Prosecutors: John C. Butt, M.D. in  
the presence of Michael  
M. Baden, M.D.

Present: family  
representative, and  
Cpl. Greg Taker and  
Cpl. James Leadbeater of  
the R.C.M.P.

Miller/Baden 2

Exhumation:

The casket of Clayton Miller was disinterred from St. Joseph's Churchyard Cemetery, Ligan, Nova Scotia, on December 27, 1993. Present during the exhumation was [redacted] who advises me that the casket was in the soil immersed in water with the top of the outer casket liner collapsed onto the top of the wooden casket. The body was brought directly to the Glace Bay Hospital mortuary and the doors were sealed in the presence of Cpl. Taker and Cpl. Leadbeater.

Identification:

On December 28, 1993, the seals on the Glace Bay Hospital's mortuary were removed in my presence and the body was identified as Clayton Miller by [redacted] the funeral director who initially interred him. Identification is also confirmed through dental x-ray comparison. Artifacts on the body and in the casket, described to [redacted] by the family were also present.

X-rays:

Initial autopsy x-rays from 1990 showed no evidence of fluid in the lungs. Further x-rays taken in my presence at this time confirm that no fractures or traumatic injuries are present.

External examination:

The remains are in a poor state of preservation with skeletonization because of postmortem loss of soft tissue. A gray/white aspergillus type fungus covers almost the entire face. Adipocere changes are present in the exposed subcutaneous soft tissues of the thighs, buttocks and extremities. No injury or trauma is identified.



Miller/Baden 3

**Internal examination:**

A sealed plastic bag contains the partially dissected and embalmed viscera.

**Neck organs:** The larynx and trachea are intact and show no evidence of injury. The hyoid bone is still in its anatomic position, intact with postmortem separation into its three component portions unremarkable for his age. The cervical spine, spinal cord and remaining soft tissues are intact and uninjured.

**Lungs:** The lungs are well embalmed, undissected and show no evidence of hyperinflation, excess fluid accumulation or evidence of drowning. There are no emphysematous changes present. Bronchi and vessels are not remarkable.

**Heart:** The heart has been dissected in an unorthodox manner, but otherwise appears normal for the age. The unopened coronary arteries are natural.

**Stomach:** The stomach is unremarkable with no petechial hemorrhages present. The small and large intestines are unremarkable.

**Liver:** The liver is largely intact and shows normal lobular architecture.

**Spleen:** The spleen is unremarkable.

**Pancreas:** The pancreas shows extensive autolysis.

**Kidneys:** The kidneys show congestion in the renal parenchyma and are otherwise unremarkable.

**Aorta:** The aorta is thin and pliable.

**Skull:** There are no postmortem fractures of the facial or skull bones. Postmortem blackening of the teeth is prominent. There is no hemorrhage into the mastoid air cells.

Miller/Baden 4

Other materials reviewed:

- Toxicology report: 0.12% blood alcohol concentration.
- Initial autopsy reports.
- Microscopic slides prepared from both autopsies.
- Neuropathology report.
- Police reports.
- Initial autopsy photographs.
- Diatom studies: negative.
- Report of Dr. Butt.
- " also visited the scene where the decedent was found.

Opinion:

Based on the above examination and studies, it is my opinion that Clayton Miller did not suffer from pulmonary emphysema as stated in the in the initial autopsy report and that there is no autopsy evidence that he died as the result of drowning.

A diatom test, under the supervision of Dr. Butt, found no diatoms in Mr. Miller's bone marrow which further supports the conclusion that death was not caused by drowning. If the two witnesses who state that Mr. Miller was lying face down in the stream with his nose and mouth under the water when they found his body are correct, then this placement occurred after he died. The possibility that he died elsewhere and was then brought to the stream cannot be excluded.

There also was no autopsy finding to suggest that a choke hold had been applied which is strong evidence that neck compression hadn't occurred, but occasionally this can happen without producing changes that can be found at autopsy.

It is my opinion that Clayton Miller did not die of pulmonary emphysema or of drowning as initially certified, but that his death was due to exposure to the cold and to consequent hypothermia which developed over a period of hours.

Michael Baden  
5/17/94