

" The Oaths Act, 1867"

I David Griffiths, a Registered Medical Practitioner in the State of Queensland acknowledge by virtue of Section 110A(5)(ii) of the Justices Act that On February 8, 2005 I reviewed documents relating to the above named deceased person with you, *Det Sgt Garry Campbell.*

Christina Watson's past medical history (provided as written reports by her medical practitioners in the USA) confirm that she had a pre-existing condition called Paroxysmal Supraventricular Tachycardia (SVT). This condition results in intermittent episodes of a very rapid heart beat that can cause palpitations, fainting, convulsions and occasionally death. ~~Christina's condition was due to the presence of dual Atrioventricular (AV) nodal conduction pathways in her heart. (Normally only one pathway is present.) Dual AV nodal conduction pathways produce episodes of AV nodal re-entry induced paroxysmal supraventricular tachycardia. Her cardiac conduction abnormality was treated initially in July 2001 with an oral medication, Diltiazem 240mg daily. This controlled her palpitations but made her feel unwell with no energy. Christina therefore opted for the radiofrequency ablation (cardiac catheter diathermy) of her accessory cardiac conduction pathway by Professor Andrew E. Epstein M.D. on August 16, 2001. Christina subsequently commented on still being aware of her heart beat intermittently at night, but not of it being particularly fast. (Report of Dr. F. Mendelsohn M.D. dated September 18, 2001). She no longer took medication for her heart but was advised to seek a cardiology review one year later.~~

Christina's history of a treated cardiac conduction abnormality still leaves open the possibility that a physically and emotionally stressful event would provoke anxiety which could induce an episode of heart hyperexcitability and a SVT. ~~Such an anxiety provoking event may well have been induced by Christina's dive in a strong current, whilst sinking uncontrollably in the ocean. Her reported failure to inflate her buoyancy device (BCD) is supported by the statement of the "Mike Ball" employee, Wade Singleton, who found and retrieved Christina from the ocean floor. When he located her he stated:- "There was no air in her buoyancy jacket." (Wade Andrew Singleton, statement of witness dated October 22, 2003 paragraph 32, page 9/15.) Christina's wetsuit would have compressed as she descended, making her progressively more negatively buoyant. This should have been compensated for by the inflation of her BCD which her husband stated she attempted to do. (David Watson's, transcript of October 22, 2003, pages 9, 10 and 11 of 14, tape 3 of 4). Christina may have pressed the "deflate" button instead of the "inflate" button. Another possibility is that the BCD inflation hose was not properly connected, preventing air from filling the BCD when the "inflate" button was pressed by Christina. (See report of Police SCUBA equipment evaluation by Senior Constable D.M.E. Netting of May 31, 2004, pages 2 and 3. "The inflator hose attached to the BCD was partially unscrewed at the fitting with the bayonet clip.....however, air leaks would have been noticeable on the surface prior to the dive.... It is possible that this connection was loosened during transport from the dive site.")~~

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I make this solemn declaration by virtue of the provisions of the Oaths Act 1867 that :

- (1) This written statement by me dated 18 Feb 05 and contained in pages numbered 1 to page 3 number is true to the best of my knowledge and belief: and
- (2) I make this statement knowing that, if it were admitted as evidence, I may be liable to prosecution if I stated in it anything that I knew to be false.

*David Griffiths*

.....Signature

Taken and declared before me at TOWNSVILLE.....

This 18TH.....day of FEBRUARY..... 2005,

Witness D. Stanger JPC dec  
Justice of the Peace /  
Commissioner of Declarations

David Watson's description of events, in his transcript of interview dated October 22, 2003, pages 7 to 13 of tape 3 would fit well with Christina becoming progressively more anxious, trying unsuccessfully to swim upwards and back to the anchor rope, developing an abnormal heart rhythm, losing consciousness, stopping swimming and breathing, then having a convulsion, when her thrashing arm movements would be likely to displace her partner's dive mask as he was trying to tow her back to the anchor rope. When she stopped convulsing she would have become limp, with eyes still open and would have started to sink, probably without starting to breathe even if her SCUBA regulator remained in her mouth (as was described by her dive buddy husband).

The opinion of a cardiologist or a cardioelectrophysiologist may be helpful in determining the likelihood of a serious cardiac event causing the loss of consciousness, convulsion and subsequent circumstances of Christina's last dive. Suitable experts include Dr. Russell Denman of Brisbane (Cardiac Electrophysiologist) and Dr. Paul Langton of Sir Charles Gairdner Hospital, Perth (Visiting Medical Officer Cardiologist).

No post mortem evidence would be available to implicate a heart conduction defect, or death due to an abnormal cardiac rhythm. The post mortem report signed by Dr. David John Williams on June 10, 2004 makes reference to evidence of gas embolism throughout Christina's body (paragraph 7). This finding is likely to be a consequence of the attempted cardiopulmonary resuscitation that Christina received upon retrieval to the surface, together with the post-mortem release of nitrogen gas bubbles into her blood vessels from her stores of body tissue gas, from air absorbed at greater than atmospheric pressure whilst breathing under water.

A severe anxiety attack causing Christina to pull off her husband's mask is unlikely to be a satisfactory explanation of events in the absence of a serious heart disturbance. Panic alone would be likely to cause hyperventilation but not unconsciousness. Death would only be likely following panic if the victim lost her SCUBA regulator or ascended to the surface whilst breath-holding. Christina's dive computer confirms her continued descent to the bottom where she was found by Wade Singleton with both her SCUBA regulator and mask undisplaced.

Submersible dive computers retain and provide objective evidence of depth and time courses of previous logged dives and give "real time" information on safe decompression requirements and ascent rates whilst undertaking each dive. The computer information that the police have downloaded from David Watson's dive computer log his last dive as occurring on January 1, 1999. This is the default date that appears each time the battery is reinserted. The maximum depth of his most recently logged dive is recorded at 54 ft. The maximum ascent rate is recorded at 90 to 120 ft/min which is faster than the old US Navy recommended ascent rate of 60 ft/min. (Divers are now recommended by the US navy to ascend at 30 ft/min or less for increased safety.) In all the previous logged dives on this computer the fastest ascent rate (on 2 occasions) was 60 to 90 ft/min and all but two dives had a maximum logged ascent rate of 40-60 ft/minute which is within the old US Navy recommended safe ascent rate. David Watson's ascent rate from his last logged dive indicates a faster than usual "urgent" ascent such as would occur if he followed an inclined anchor rope to the surface but not a panicking rapid ascent directly to the surface.

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*David Watson*

.....Signature

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This 18<sup>TH</sup>.....day of FEBRUARY..... 20 05

Witness *D. Strangier JP (Cdec)*

Justice of the Peace /  
Commissioner of Declarations

The information obtained from the dive computers of both David Watson and Christina Watson is most valuable in that it provides objective evidence of what happened during the fatal dive. If any further information can be obtained by the dive computer manufacturers such as depth recordings at shorter time intervals, by interrogating the computer's stored memory, this may be of further value in determining the time and depth course of events during the fatal dive.

On February 14, 2005 I took part in the pressure testing of the dive computer identified to me by police as the device worn by David Gabriel Watson on the occasion of his wife's fatal dive on October 22, 2003. The trials took place in the main lock of the Hyperbaric chamber at The Townsville Hospital between 4 and 5 p.m. on February 14, 2005. The computer was initially tested with its battery correctly inserted but without any external connection to a source of compressed gas. The computer was turned on and observed to self test normally. The dive computer was then immersed in salt water in a bucket and slowly pressurized within the chamber. At a pressure of about 10Kpa (3 feet or 1 metre of sea water (MSW) pressure) the computer began to "beep" as observed by myself and the police who viewed and recorded the computer display from outside the chamber through a viewport. A message flashed on the screen indicating "low air pressure" whilst the chamber pressure was increased. The depth gauge and timer function operated normally whilst the chamber was compressed to 50 Kpa (5 MSW). The computer was then decompressed and removed from the water. The battery compartment was opened and the battery deliberately reversed. When retested underwater in the chamber the computer screen remained blank whilst the chamber was slowly compressed to a pressure of 50 Kpa (5 MSW). No "beeps" were audible during this test. Following decompression the computer was removed from the water and the battery was inserted correctly. The computer was turned on and noted to self test and again display a normal surface screen. We thus demonstrated that this dive computer does not in fact "beep" when underwater at a depth between the surface and 5 MSW when its battery is reversed, contrary to the report by David Gabriel Watson in his statement of October 22, 2003, Page 5 of 9, paragraph 26. However the computer does emit "beeps" if not correctly connected to a source of compressed air, when its battery is fitted correctly. Mr Watson may have confused the blank screen with "beeps" as an indicator of battery reversal since he is presumably familiar with the "beeps" emitted by his computer if any alarm function is activated.

I conclude that there is evidence available from the data provided to me by Det. Sgt. Campbell that the death of Christina Watson could have been from natural causes.

David Griffiths *David Griffiths*  
MBChB DObsRCOG DA, FANZCA, Dip.DHM  
Director of Hyperbaric Medicine

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*David Griffiths* .....Signature

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This 18<sup>TH</sup> .....day of FEBRUARY .....2005

Witness *D. Stringer (PCC dec)*  
Justice of the Peace /  
Commissioner of Declarations