

09-1

Age: 16 Gender: M

Cause of Death: Salt Water Drowning

The decedent was diving with a family member at a dive site described to be “very straightforward entry level site for diving”. The decedent was a licensed diver and had been diving for approximately one year. He was a competitive swimmer and had completed 10 dives. The weather conditions were good, there were no obvious currents and the bottom was flat and calm. The visibility during the time of the dive was considered good.

The decedent and buddy were diving at approximately 25 to 30 feet of water, when he signaled he was in distress. The decedent rapidly went to the surface, where he removed his mouthpiece and called out for help and alerted another family member on shore. The buddy came to his aid, but during this moment, the decedent deflated his BCD and began to sink and slipped away from the buddy’s grasp. EMS was called and the decedent was found 15 minutes later in approximately 12 feet of water. CPR was administered immediately but unfortunately rescuers were unable to revive the decedent.

The dive gear was owned by the decedent and sent to the Canadian Coast Guard for testing. The overall condition of the gear was found to be good. Most of the gear was new and appeared to have only been used for a few dives.

An autopsy found evidence of drowning consistent with a scuba diving incident. X-rays of the chest, head and neck showed no evidence of pneumothorax or air embolism.

09-2

Age: 61 Gender: M

Cause of Death: Salt Water Drowning

The decedent was diving with a group of divers for a day of diving and had been using rented equipment from a local dive shop. The area of the dive site that the group was diving is subject to strong and unpredictable currents. The first dive was uneventful.

The decedent held an Advanced Open Water Certification and had performed approximately 75 dives in the past, but all were considered warm water dives. This was his first cold water dive and first time using a drysuit. The decedent and buddy entered the water for a second dive after completing the appropriate buddy checks. They did a free descent to 10 meters and found that there was current. They continued their descent to approximately 20 meters and found themselves in a lagoon type area where there was little current. They found that they could not leave this lagoon due to strong currents and started their ascent to the surface. During the ascent, at approximately 12 meters, they encountered washing machine-like currents. They were being pushed up and down approximately 4 meters at a time. The dive partner was wearing a dive computer and they used it to stabilize themselves on the ascent. When the dive partner turned to check on the decedent, he could no longer see him. He continued to ascend taking the required decompression stops, assuming that the decedent was doing the same. Once on the surface the dive buddy alerted the boat that they had become separated.

Witnesses on the boat reported they saw the decedent come to the surface. He remained motionless for a few moments, and then disappeared from sight. The EMS was alerted and a missing diver search was initiated. The decedent's body was found approximately 3 hours later. Resuscitation procedures were attempted but were unsuccessful.

The decedent's dive gear was sent to the Canadian Coast Guard for testing. The dive equipment's overall condition was found to be poor and in need of general maintenance. A number of defects were found, however, none were considered a factor in this death. The rental shop suspended the renting of all equipment until it could be inspected.

09-3

Age: 46 Gender: M

Cause of Death: Drowning

An experienced diver had been diving with a group from a dive boat. The decedent had many years of experience on conventional SCUBA equipment and had reportedly done over 1000 dives. He had purchased an Inspiration Classic Closed Circuit Rebreather in 2001 or 2002 and was trained and certified in the use of closed circuit rebreather diving equipment by a certified instructor at that time. No records were found indicating that the rebreather equipment had been inspected by a qualified technician since it was purchased. The decedent had no medical problems.

The decedent and the group had been on a multi day diving trip and was on their third day of diving. They had been using all their own equipment. The decedent and buddy had been diving at a depth of 15 meters when the buddy lost sight of the decedent. Approximately 40 minutes later members of the group aboard the charter boat saw the decedent suddenly appear at the surface. His face was blue, with froth at the mouth. The group reached the decedent but were unable to lift him into the boat along with his dive equipment. His dive partner surfaced within a minute and removed the diving equipment and he was brought aboard. Resuscitation began immediately but was unsuccessful.

The diving equipment was later recovered and sent to the Experimental Diving and Undersea Group of Defense Research and Development Canada in Toronto, the research section of the Canadian Navy. The technical inspection of the equipment revealed several problems. The rebreather had an incorrect intermediate pressure setting and both oxygen controllers were damaged. It is possible that the rebreather was not delivering enough oxygen to the decedent creating an hypoxic breathing gas. A second stage demand valve regulator was fitted to serve as a bailout air source, for use if the rebreather did not function properly. The placement of the demand valve and the shut position of the in-line isolation valve indicated that this system was not deployed. This may indicate a sudden equipment failure that did not allow time for the bailout source to be used.

Full body x-rays did not show any sign of pneumothorax or air embolism. The findings were consistent with drowning. Toxicology detected no relevant substances.