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Special Environmental Radiation in Canada Report on Fukushima Accident Contaminants

Technical Report

Surveillance of Fukushima Emissions in Canada
March 2011 to June 2011

November 2015

Canada

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SUMMARY

On 11 March 2011, the Fukushima Daiichi Nuclear Power Plant in Fukushima, Japan experienced two unprecedented natural disasters, a severe earthquake and subsequent tsunami, resulting in the failure of three on-site nuclear reactor units. The accident culminated in significant releases of radioactive contaminants into the environment beginning 12 March 2011. The emissions were of significant domestic concern in Japan and resulted in measurable levels of radioactive contaminants world-wide. This Special Environmental Radioactivity in Canada Report provides a comprehensive account of the environmental radiation surveillance activities conducted by Health Canada in the months immediately following the Fukushima accident which includes an assessment of the overall levels of radiation and its impacts to Canada.

Significant enhancements have been made in Health Canada's radiation surveillance capability since the 1986 Chernobyl Nuclear Power Plant accident. Major milestones include: obtaining access to data from an International Monitoring System (IMS) of the Comprehensive Nuclear Test Ban Treaty Organization, creating a nation-wide real-time Fixed Point Surveillance (FPS) System of 77 radiation detectors, and integrating Environment Canada's capacity to model atmospheric dispersion of contaminants into its operational monitoring capability. These new systems, coupled with upgraded Canadian Radiological Monitoring Network (CRMN) station operations, assured that the airborne contaminants from Fukushima were detected and assessed prior to arriving in Canada and that their trace levels were determined in detail as they traversed the country. The FPS provided immediate confirmation that there was no perceptible change in total background levels of radiation. However, the system was further able to identify minute changes well below the natural background radiation of specific radionuclide contaminants.

Working in conjunction with Environment Canada, the levels of airborne contaminants and deposition were calculated for North America using their state of the art contaminant dispersion models. During this process, agreement was established between actual airborne contaminant measurements, both from the IMS and domestic network measurements, and the modelled values. Hence, the models provided reliable estimates of the airborne concentrations and ground deposition of contaminants from the Fukushima accident across Canada, even where no sampling equipment existed.

Finally, the overall impact of these contaminants to the Canadian environment was assessed and determined to be of no health concern to Canadians. Using a conservative approach, the maximum dose to an individual resulting from the Fukushima accident was estimated to be less than 0.0003 (1/ 3,000) of the typical annual dose of an individual living in Canada from the natural background radiation. This additional dose resulting from the Fukushima accident is far less than the normal variation in dose due to background radiation across Canada. There are no health impacts related to this incremental dose.

Datasets discussed in this report are available both online in the Government of Canada's Open Data Portal and in the appendices of this report.

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NOTE TO READERS
Henceforth, first occurrences in the text of terms that are listed in the glossary are formatted in bold. Titles of acts, plans and supporting documents are formatted in italics.

1. Radioactivity Surveillance at Health Canada

1.1 History

The mission of Health Canada is to improve the lives of all Canadians and to make our population among the healthiest in the world. In support of this goal, the Radiation Protection Bureau (RPB) assesses and manages the risks posed by radiation exposure in living, working, and recreational environments. Environmental surveillance of radioactivity has always played an essential role in the RPB's assessment and management of these risks, initially through documenting long-term trends in fallout levels during the atmospheric nuclear test era and later through the development of surveillance systems for timely response to environmental radiological incidents like nuclear reactor accidents, unintended nuclear facility releases, and emissions from underground nuclear tests. The practical experience gained in incident response over the 33 years prior to the Fukushima accident and the development of surveillance systems for incident response beginning in 1995, ensured that the RPB was prepared for a comprehensive and timely evaluation of the risk posed by this accident in Canada

Since 1959, the RPB has continuously operated a network of stations across the country that routinely monitors radioactivity levels in the environment. The original purpose of the network was to measure **radioactive fallout** from intensive nuclear weapons testing during the Cold War era. Data collected by this network and by similar networks in other countries played a critical role in the signing of the *Partial Test Ban Treaty* (PTBT) in 1963, in which the United States, the Soviet Union, and the United Kingdom agreed to cease nuclear weapons testing in the open atmosphere. France and China, which were not signatories to the Treaty, continued atmospheric testing on a limited basis up until 1980. The Health Canada network maintained a continuous record of radioactive fallout levels across Canada during this period.

In the early 1970s as nuclear power stations were beginning to come on-line, the Health Canada network was expanded to include monitoring of radioactivity levels in the vicinities of these nuclear stations. On 24 January 1978, a new kind of environmental radiation hazard arose when the Soviet nuclear-powered satellite, Cosmos 954, re-entered the earth's atmosphere and

spread a trail of radioactive debris over a large stretch of the Northwest Territories. The RPB played a major role in the recovery and assessment of health risks from this debris.[1]

Just over a year later, on 28 March 1979, the Three Mile Island Nuclear Power Plant (NPP) in Harrisburg, Pennsylvania experienced a serious malfunction which led to a significant release of radioactivity into the atmosphere. Although Harrisburg is several hundred kilometres from the Canadian border, the Health Canada network was switched to daily sampling to show that no significant radioactivity from the accident was entering Canadian air space. This event was the first indication that an incident at a NPP could have consequences at locations far removed from the immediate vicinity of the reactor. In order to deal with future accidents of this nature, the *Federal Nuclear Emergency Plan* (FNEP) was established in 1984, with Health Canada as the lead federal department.[2]

The lessons learned from Three Mile Island were brought to the forefront when a major explosion and fire occurred at Unit #4 of the Chernobyl NPP in the Ukraine on 26 April 1986. For two weeks, clouds of radioactivity billowed from the smoldering graphite core as emergency workers fought to bring the blaze under control. Radioactive fallout from this event was detected throughout most of the Northern Hemisphere at levels not seen since the signing of the PTBT in 1963. The incident demonstrated the need for coordination across a number of federal and provincial departments and agencies and led to further development of the FNEP and the establishment of a permanent infrastructure to provide rapid response to any kind of nuclear emergency - an accident in Canada, in another country with consequences for Canada, or from an unusual event such as a re-entering satellite.

Despite civil nuclear technologies being demonstrable sources of radioactive contamination in the environment, for example, the 1986 accident at the Chernobyl NPP and now the 2011 accident at the Fukushima Daiichi NPP, the past use and testing of nuclear weapons still dominate the total anthropogenic radioactivity released to the environment. Figure 1 illustrates the increasing trend of airborne concentrations of a radioactive material, cesium- 137 (^{137}Cs), as nuclear tests were conducted in the early 1960's with increasing frequency and destructive

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[1] Tracy, B.L; Prantl, F.A.; Quinn, J.M. Health Impact of Radioactive Debris from the Satellite Cosmos 954. *Health Phys.* **1984**, *47(3)*, 225-233.

[2] Health Canada. Federal Nuclear Emergency Plan, Part 1: Master Plan (5th edition). Ottawa. 2014. http://www.hc-sc.gc.ca/hc-ps/pubs/ed-ud/fnep-pfun-1/index-eng.php (accessed Mar 13, 2015).

power. The Chernobyl accident provided a relatively small contribution to the total airborne ^{137}Cs. Contamination of the environment by anthropogenic radioactivity was significantly reduced only through initiatives like the PTBT driving nuclear weapons testing underground, the *Threshold Test Ban Treaty (TTBT)* limiting explosive power, and unilateral moratoria on testing by some countries. The end of the Cold War in the early 1990s saw a new impetus among the major powers to develop a treaty which would ban the testing of nuclear weapons "in all environments for all time". The *Comprehensive Nuclear Test Ban Treaty* (CTBT) was adopted and opened for signature on 10 September 1996. Canada was among the first countries to sign and ratify the Treaty. The success of the Treaty depends on the Comprehensive Nuclear Test Ban Treaty Organization (CTBTO) International Monitoring System (IMS) that can detect a nuclear explosion anywhere in the world, whether in the atmosphere, underground, or underwater. The IMS employs four types of monitoring to achieve this end – seismic, hydroacoustic, infrasound, and radiological. Health Canada is responsible for the radiological component of the IMS network in Canada.

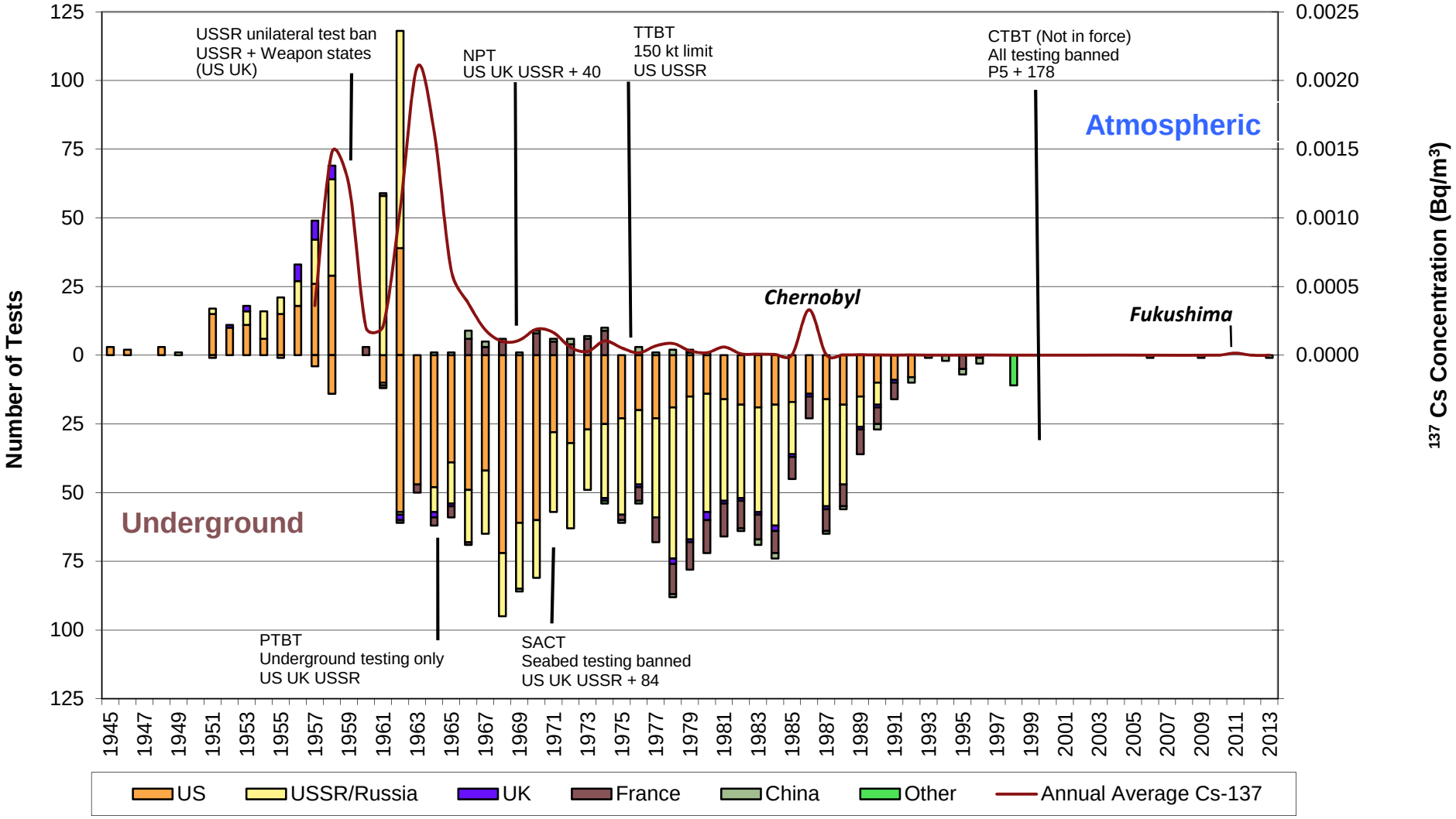

Figure 1: Number of underground and atmospheric tests per year and demonstrable impact of atmospheric nucleartest on the average airborne concentration of radioactive ^{137}Cs (Bq/m^3)[3].

The timing of the implementation of the arms control treaties was essential in reducing the risks due to environmental man-made radioactivity. For example, once the PTBT restricted testing to underground, the airborne concentration of radioactive ^{137}Cs was significantly reduced (see other treaties below[4]). The effect of the Chernobyl accident on atmospheric concentrations of ^{137}Cs is also shown to scale.

[3] Data source of ^{137}Cs concentrations: *Environmental Monitoring Laboratory Databases and Sample Archives Air Sampling Data;* U.S. Atomic Energy Commission, U. S. Energy Research and Development Administration, and U. S. Department of Energy. and *National Data Centre;* Ottawa; Global Database of CTBT international monitoring data, 2004 to 2013, Health Canada.

[4] The Non-Proliferation Treaty (NPT), the Seabed Arms Control Treaty (SACT) banning testing on the seabed, the TTBT limiting the explosive power to 150 kt, and the CTBT are shown, along with the key players in each case and the number of signatories. The CTBT includes 178 signatories plus the 5 declared nuclear powers (P5).

Unfortunately, all nations have not signed the Treaty. Since 1996, several nuclear tests have been carried out by Pakistan, India, and North Korea (Democratic People's Republic of Korea or DPRK) with the most recent being a test by the DPRK on 12 February 2013. These events provided an opportunity to test and improve the capabilities of the IMS and of national data collection networks. For instance, at the IMS Yellowknife station, the RPB was able to detect traces of radioactive xenon (radioxenon) which had vented into the atmosphere from the first DPRK test on 9 October 2006.[5]

Following the September 11th terrorist attack on the World Trade Centre in 2001, the emergency response capabilities at Health Canada were expanded to deal with threats from a possible terrorist attack by means of a "dirty bomb" or other type of radiological dispersion device. A core capability requirement to respond to such threats was the installation of a national network of real-time spectroscopic radiation dosimeters, the Fixed Point Surveillance (FPS) System.

With over 50 years of experience in environmental radioactivity monitoring, the RPB was well prepared to deal with the consequences of the Fukushima accident for Canada.

1.2 Current Surveillance Networks and Operations

1.2.1 The Canadian Radiological Monitoring Network (CRMN)

The CRMN includes 26 monitoring stations spread across Canada for the measurement of radioactivity in air and precipitation as well as **external radiation** [Figure 2]. The typical station is comprised of an air-sampler that draws air through a filter to trap airborne particles and a precipitation bucket to capture samples of rain and snow. **Thermoluminescent dosimeters** (TLDs) are also deployed at these sites to register the total exposure to gamma radiation. The gamma radiation causes minor defects in the material of the TLD which are measured to determine a radiation dose. Air filters are typically collected weekly and then sent to the RPB laboratory for **gamma ray spectroscopy** analysis which can identify specific radionuclides and determine their concentrations in air. During a significant nuclear event, the sampling frequency

[5] Saey, P.R.; Bean, M.; Becker, A.; Coyne, J., d'Amour, R.; De Geer, L-E.; Hogue, R., Stocki, T.J.; Ungar, R.K.; Wotawa, G. A Long Distance Measurement of Radioxenon in Yellowknife, Canada, in Late October 2006. *Geophys. Res. Lett.* [Online] **2007**, *34*. http://onlinelibrary.wiley.com/doi/10.1029/2007GL030611/epdf (accessed Mar 13, 2015).

can be switched from weekly to daily, if necessary. Similarly, the precipitation samples are returned to the RPB for analysis on a monthly basis. The TLDs are returned to the laboratory every three months to establish long term trends in external radiation doses at the monitoring sites. The compilation of data collected from over 50 years of CRMN's continuous operation demonstrates a steady decrease in the artificial environmental radioactivity levels associated with nuclear weapons testing [Figure 1] and a downward trend in radioactivity levels after the small spike caused by the Chernobyl accident.

Figure 2: Locations of the Canadian Radiological Monitoring Network (CMRN) stations

1.2.2 CTBT atmospheric radionuclide monitoring sites in Canada

Under the *CTBT Implementation Act*, Health Canada is responsible for the implementation and operation of four radionuclide monitoring stations that contribute to the global IMS. These 4 CTBT stations measure **aerosol particulate** contaminants, while two of them can also measure radioactive noble gases. The CTBT stations provide a number of enhancements compared with typical CRMN stations. For instance, in one day there is nearly double the volume of air collected from a CTBT station than the volume of air collected at a CRMN station in one week. Samples are also taken on a daily basis at the CTBT stations while other CRMN stations collect samples on a weekly basis. Hence, the locations of the CTBT sites were strategically placed to provide appropriate coverage within the country for the IMS [Figure 3].

Both the particulate and noble gas samples are measured in the field with the information automatically transmitted to the International Data Centre (IDC) in Vienna to determine if a nuclear explosion has taken place anywhere in the world. Under the terms of the Treaty, Health Canada also maintains a Radionuclide Laboratory in Ottawa with specialized equipment to analyze samples collected in Canada or elsewhere in the IMS. In addition to the transmission of data to the IDC in Vienna, all data from the monitoring sites are simultaneously analyzed and assessed at a National Data Centre (NDC) at the RPB, which is co-located with the Radionuclide Laboratory in Ottawa. The NDC has unrestricted access to the world-wide data collected at the IDC. RPB also runs a test facility in Ottawa with equivalent capability for sampling and measurement of particulate and noble gas as the other Canadian CTBT radionuclide stations.

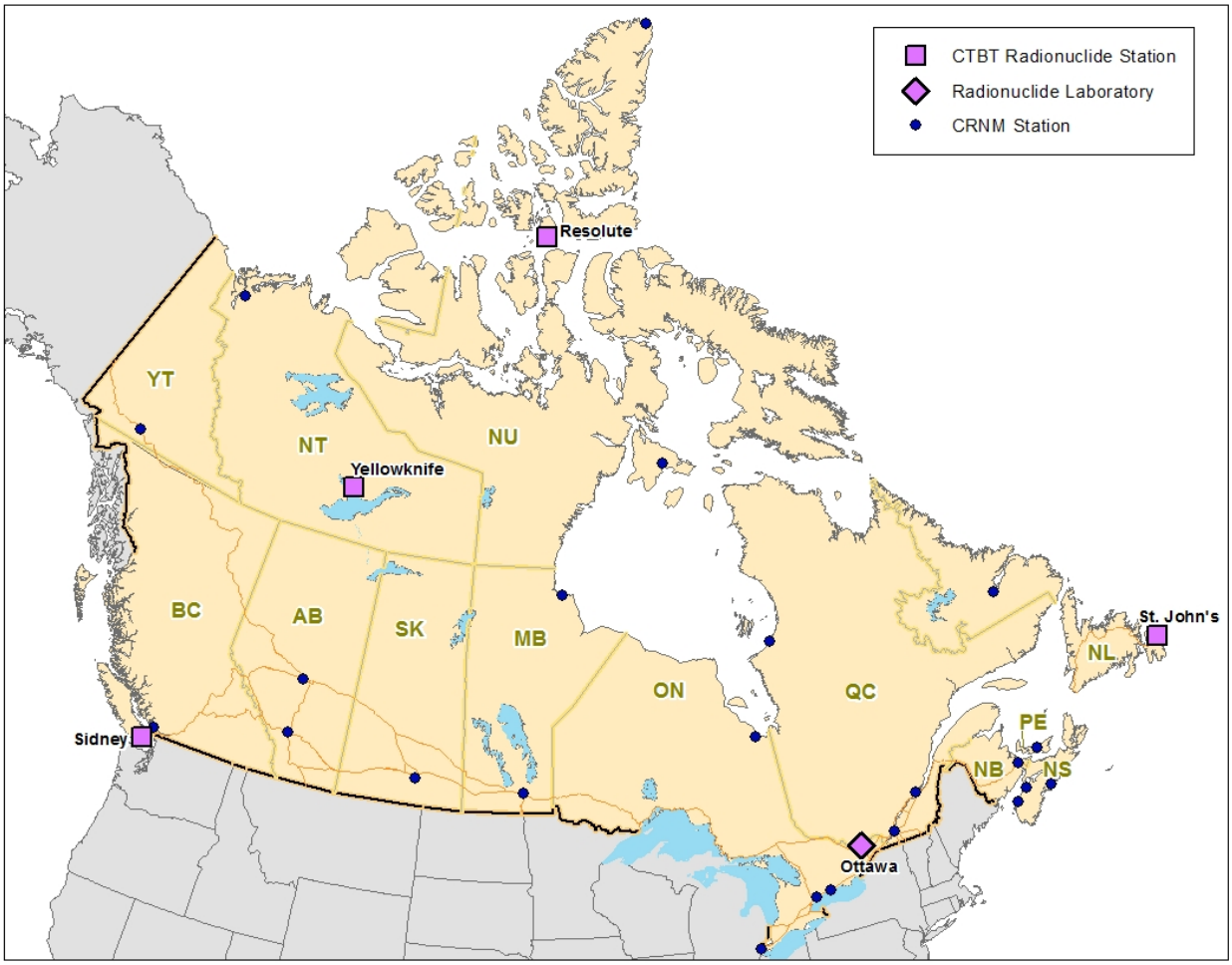

Figure 3: CTBT radionuclide stations and laboratory in Canada

1.2.3 The Fixed Point Surveillance (FPS) System

Since 2000, Health Canada has complemented its original network with 77 state-of-the-art, remotely operated radiation monitoring stations. Each station is equipped with a high-sensitivity **sodium iodide detector** which continuously measures **gamma radiation** levels. These detectors measure radioactivity of airborne and ground deposited contaminants and can provide early warning of any radioactivity released from a local source or radioactivity entering Canadian air space from abroad. The stations are distributed across the country in major population centres, around NPP sites, and at other strategic locations [Figure 4]. The FPS operates on a 24/7 schedule and the data are automatically polled and downloaded into a database at the RPB. The polling frequency of the detectors can vary from once every 24 hours in routine mode to as often as once every 15 minutes during emergency situations.

Figure 4: Locations of the Fixed Point Surveillance stations

The black dots indicate individual detectors for the monitoring of a population centre. The purple squares indicate the local arrays of several detectors in the vicinity of NPPs and harbours where Nuclear Power Vessels berth.

2. Activities during the Fukushima Accident

Health Canada's ability to respond to nuclear accidents and incidents throughout the world has improved significantly since the Chernobyl accident of 1986. For instance, daily assessments of global airborne radioactivity are possible through access to data from the IMS of the CTBTO. For any significant release of radioactive contaminants outside of North America, like the Fukushima accident, the size of release can be determined and estimates of the levels of contamination it will produce in Canada can be developed in advance of the contamination arriving in Canada. Additionally, Health Canada's FPS is able to detect even minor increases in radiation exposure relative to normal background levels every 15 minutes.

During the Fukushima emergency, the RPB provided a timely and comprehensive response. Within 24 hours of the first significant reactor release on 13 March 2011, RPB analysts were already interpreting detections of these releases within the IMS. Using Environment Canada's atmospheric transport models, the total amount of radioactivity from the initial accident releases was estimated. These release estimates and composition were consistent with key reactor failure scenarios developed independently by the Canadian Nuclear Safety Commission. Hence, the accident release estimates were used with confidence to predict expected contaminant levels in Canada prior to their arrival.

In addition to working longer hours, minor modifications to network operations and significant additions to laboratory and NDC operations were instituted. These included: immediate transport of normal CRMN samples to Ottawa for analysis with additional resources to ensure their prompt measurement and analysis; direct gamma ray spectroscopy of precipitation samples; support to the Canadian Food Inspection Agency (CFIA) in the analysis of food samples they collected; deployment of additional FPS detectors in British Columbia and the Yukon to allay local public concerns; deployment of two FPS stations to the Canadian embassy in Tokyo; daily analysis of the CTBTO global IMS data set; and detailed review and assessment of Asia – North American regional data.

2.1 Enhanced Field Monitoring

2.1.1 CRMN

The CRMN stations maintained their normal sampling schedules. However, arrangements were made to have samples immediately shipped to Ottawa for analysis at the end of each sampling period. When sufficient precipitation was available, collected samples were measured directly by gamma ray spectroscopy. Similarly, laboratory staff in Ottawa were placed on an enhanced work schedule to ensure samples were measured immediately upon arrival.

2.1.2 CFIA and CBSA samples

The laboratories at Ottawa headquarters supported the CFIA and the Canadian Border Service Agency (CBSA) by measuring samples and materials collected by these agencies. The laboratories determined whether these materials contained contaminants from the Fukushima

accident. Health Canada further assisted these agencies by comparing results against established guidelines and advising on any health risks to Canadians due to the Fukushima accident.

2.1.3 Additional FPS detectors to Western Canada

In response to public concern on the west coast of Canada, additional FPS detectors were deployed to 9 locations in British Columbia and the Yukon Territories beginning 20 March 2011[6]. These systems began reporting on 22 March 2011 with all systems on line 24 March 2011. The systems were removed late summer 2011 with the system in Whitehorse, YT transitioned to a FPS permanent installation.

2.1.4 Additional FPS detectors to Canadian Embassy in Tokyo, Japan

Two FPS stations were deployed to the Canadian Embassy in Tokyo, Japan on 21 March 2011. A detector was installed both inside and outside of the embassy buildings. The measurements were used to confirm the advice given by local authorities and Health Canada experts for embassy staff and Canadians living abroad in Japan.

2.2 Enhanced NDC Operations

2.2.1 Full review of and analysis of measurements from CTBTO IMS

A full review of all radionuclide station measurements from the CTBTO global IMS (see http://www.ctbto.org/map/) was initiated at Health Canada's CTBT NDC. Normally, these measurements require a 22-hour measurement period for the spectrum to complete. However, during this emergency, the raw data were analysed earlier to provide prompt assessments, allowing the analysis to be available within 26 hours of sample collection. Once the final spectral results were available, the preliminary analysis was assessed for completeness and accuracy with the final spectrum.

[6] Health Canada. *Health Canada's Radiation Monitoring Data – Additional British Columbia and Yukon Fixed Point Daily Dose summary*, http://www.hc-sc.gc.ca/hc-ps/ed-ud/respond/nuclea/data-donnees-eng.php#fpn (accessed Mar 13, 2015)

2.2.2 Detailed review and assessment of regional data

In the initial phase of the event, efforts were focused on IMS data from the accident region, primarily at the station in Takasaki, Japan and other stations in the Pacific and the western seaboard of the United States. With support from Environment Canada's Canadian Centre for Meteorological and Environmental Prediction (CCMEP), the quantity of material released from the accident along with the expected levels and arrival times of these contaminants to Canada were forecast days before they made landfall in Canada. The first arrival of these contaminants in North America was predicted to be 16 March 2011 to 17 March 2011. This prediction was confirmed by the first detections at IMS stations in California and Alaska. In all cases, the additional level of exposure to radiation from these contaminants was very small compared to normal environmental radiation.

3. Radiation Levels in Canada during the Fukushima Accident

3.1 External Radiation

As noted in Section 1.2, Health Canada operates two systems to measure external radiation in the environment, the CRMN and the FPS. TLDs are deployed at 26 CRMN stations across Canada to measure long-term trends in environmental radiation. For the 2010 and 2011 study period considered, the FPS system provided continuous readings of background radiation levels at 45 sites.

In the following figures, the measurements are depicted as box and whisker plots which are a convenient means of displaying sets of data with wide variations. The interpretation of these plots is explained in detail in Appendix 1. Essentially, the average is represented by the circle; the middle (called median) value lies on the line at the centre of the box; the upper and lower ends of the box indicate where the middle 50% of the values fall between; the ends of the whiskers give the highest and lowest values.

Figure 5 shows TLD readings averaged across the network for each quarter in 2011 (the year of the Fukushima accident) compared to the results for 2010 (when there were no significant nuclear events). No excess external radiation dose readings were found in 2011 compared to 2010. Furthermore, the doses were slightly lower during the January to March first quarter (Q1) of 2011 (the Fukushima accident occurred in March) compared to the rest of the year. This

variation is a normal seasonal pattern and is due to the partial blocking of gamma radiation from rocks and soils by snow cover. Q1 national TLD results over the past decade are shown in Figure 6. The 2011 results do not appear anomalous.

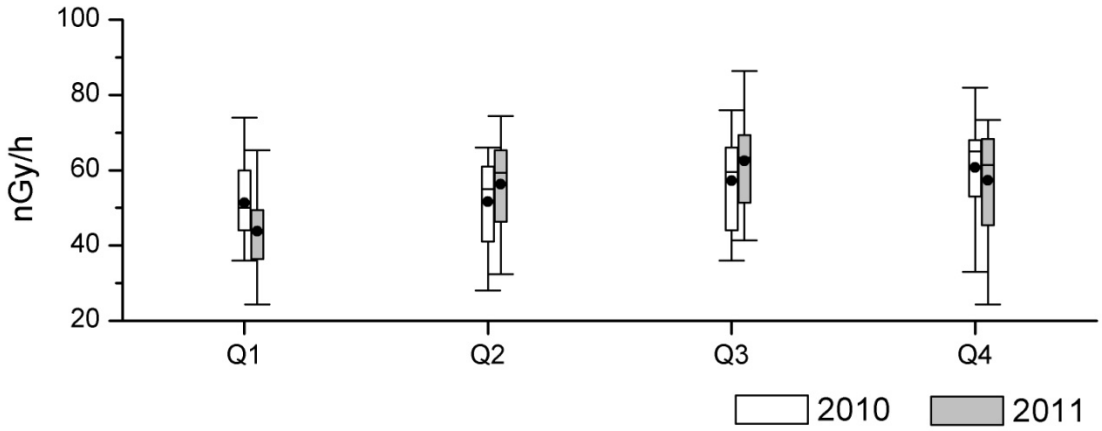

Figure 5: External radiation exposure dose rates (nanogray per hour (nGy/h)) measured by TLD over all CRMN locations

This figure compares 2010 to 2011 by 3 month long quarters of each year. Each quarter contains the data from 26 stations.

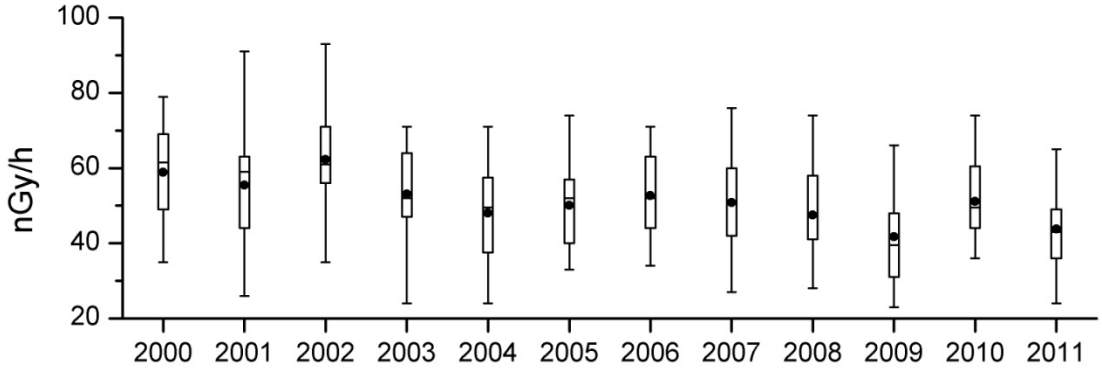

Figure 6: 2000 – 2011 external radiation exposure dose rates (nGy/h) measured by TLD during Q1 (January - March) over all CRMN locations

Figure 7 presents a monthly total dose exposure from the FPS system for 2010 and 2011. The sum of all 45 fully active stations was used to represent the monthly total dose exposure. Similar to the TLD system, there are no anomalies found in March 2011 compared to other months in

2011 or 2010. The FPS stations that did not have a continuous record of dose were excluded. Although some of the FPS stations located in British Columbia detected minor external dose exposures from **radioxenon**, a contaminant radioactive gas from the Fukushima accident, there are no significant increases in total dose exposure for March 2011. The relative contribution of radioxenon to the total external dose of an individual for the affected stations in British Columbia is provided in Appendix 2. The FPS dose values in Figure 7 can be directly compared to the TLD dose rate values in Figure 5 by dividing the values of Figure 7 by the number of hours in a month (720 to 744 hr) in which case the FPS values of approximately 24 nGy/h are only about half as large as the TLD values. This difference is largely explained by the fact the TLD are sensitive to both terrestrial (earth origin) radiation and the far higher energy cosmic (outer space origin) radiation, while the FPS stations only register the terrestrial contribution.

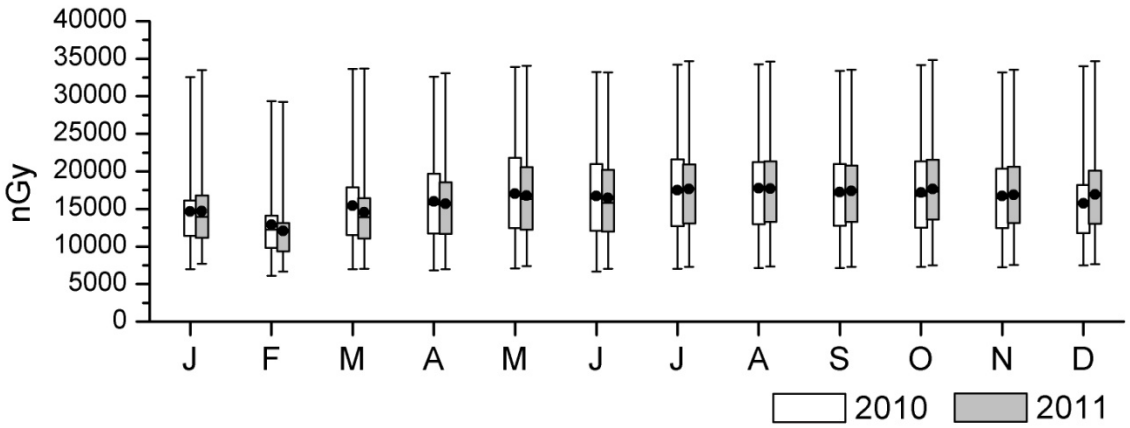

Figure 7: Total monthly external radiation air kerma dose (nGy) measured by the Fixed Point Surveillance System.

Each month contains the data from 45 stations.

3.2 Radionuclide concentrations in air

The analysis of the TLD and FPS systems described above provides only a gross indication of departures from normal background radiation. For more detailed information on artificial radionuclides released from a nuclear reactor, one must rely on the laboratory analyses of environmental samples (e.g., air filters collected at the CRMN stations) often by high resolution gamma ray spectroscopy. This technology allows scientists to distinguish between radioactivity

from an accident and normal background radiation, and is able to identify and quantify specific radionuclides virtually on an atom-for-atom basis. The spectrum of measured radionuclides provides a fingerprint of their source, and even allows one to reconstruct what may have been happening during the early hours of a reactor accident. Knowledge of the concentrations of these radionuclides in the air and on the ground is necessary for estimating the **internal radiation** dose from the inhalation and ingestion pathways.

The radionuclides that were detected in Canada from the Fukushima accident consisted mainly of **isotopes** of the volatile elements iodine and cesium and of the noble gas xenon along with a few other minor isotopes. The results are described below with detailed results given in Appendices 3 and 4. Figure 8 and Figure 9 depict the first day of measurement of iodine-131 (^{131}I) and ^{137}Cs and the contaminant levels onwards from that point. No contaminant from Fukushima was detected prior to this first day. Although a great deal of concern was expressed in western Canada, the arrival times and levels of airborne contaminants were similar in western Canada as in the Canadian Arctic, southern Ontario and Newfoundland.

3.2.1 Iodine-131 (^{131}I)

The most abundant radionuclide from Fukushima that was detected at Canadian sites was the 8-day **half-life** ^{131}I. Figure 8 shows the daily concentrations measured at six locations across Canada arranged from west to east. ^{131}I was detected nearly every day at every site from mid-March until late May 2011. The levels were extremely low, amounting to no more than a few millibecquerels per cubic metre of air (mBq/m^3). Since the becquerel is defined as one disintegration per second, a concentration of one mBq/m^3 is equivalent to one iodine atom undergoing **radioactive decay** every 1,000 seconds (~17 minutes) in one cubic metre of air.

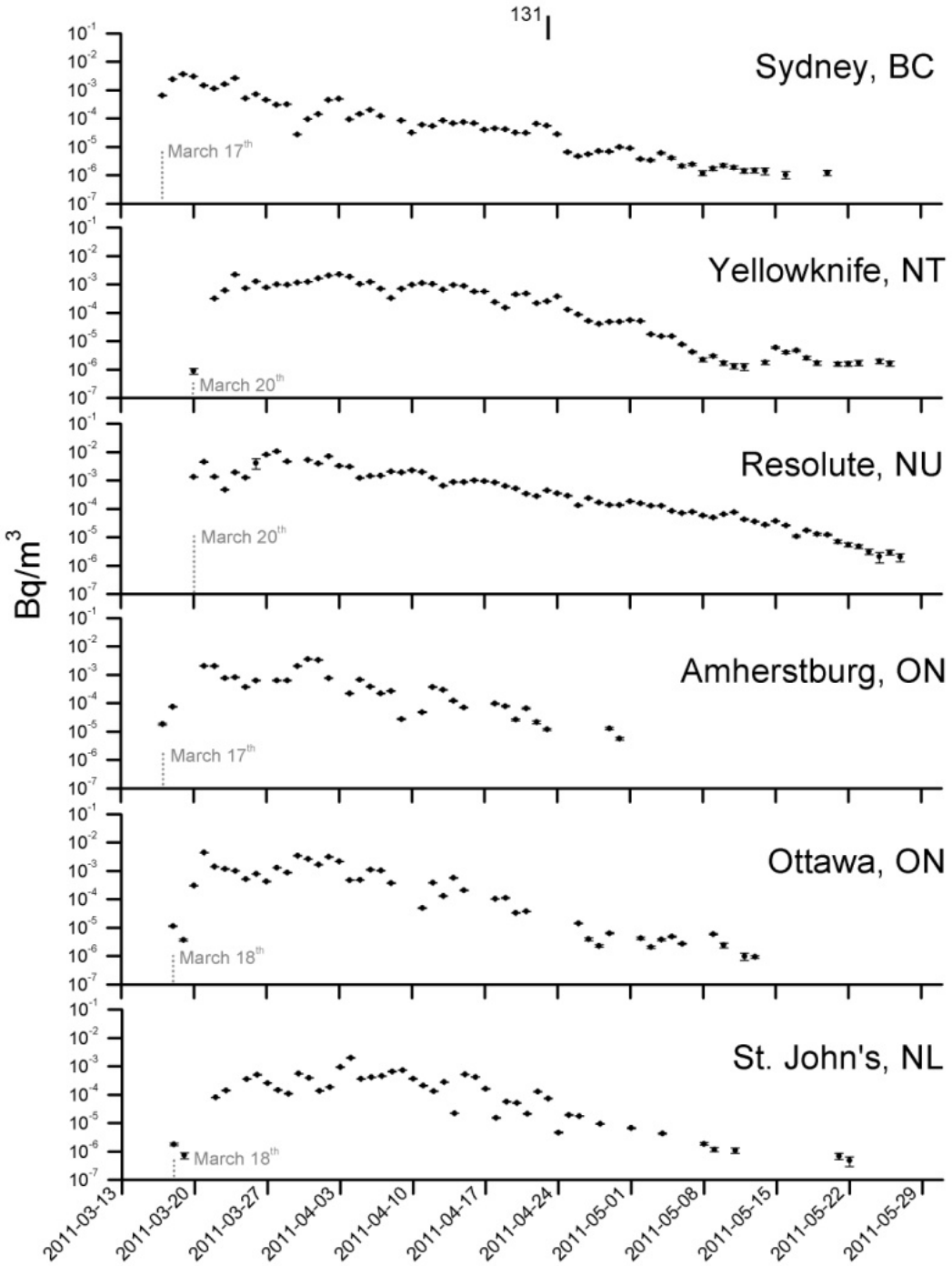

Figure 8: Activity concentration (Bq/m^3) and arrival dates of ^{131}I at selected locations across Canada

It is important to note on Figure 8 the similar arrival times of the ^{131}I plume at widely varying locations across Canada: 17 March 2011 at Sidney BC and Amherstburg ON, 18 March 2011 at Ottawa ON and St. John's NL, and 20 March 2011 at Yellowknife NT and Resolute NU. The ^{131}I

concentrations at Resolute and Yellowknife were also somewhat higher than elsewhere in Canada. At all locations, one can observe a steady decrease in the ^{131}I concentrations due to its 8-day half-life. The average weekly concentrations of ^{131}I at each Canadian location are shown in rank order in Table 1. Full details on all ^{131}I measurements in Canada are available in Appendix 3.

Table 1: ^{131}I activity concentration data for the time period of 1 March 2011 to 31 May 2011. Presented in rank order from largest to smallest.

Average weekly activity concentration		Maximum weekly activity concentration	
Station	Activity concentration (Bq/m^3)	Station	Activity concentration (Bq/m^3)
Resolute, NU (CAP15)	1.26×10^{-3}	Resolute, NU (CAP15)	7.08×10^{-3}
Resolute, NU (NMP25)	8.64×10^{-4}	Resolute, NU (NMP25)	4.17×10^{-3}
Yellowknife, NT (CAP16)	4.57×10^{-4}	Ottawa, ON (CAP00)	2.92×10^{-3}
Ottawa, ON (CAP00)	4.34×10^{-4}	Whitehorse, YT (NMP28)	2.49×10^{-3}
Amherstburg, ON (NMP01)	3.06×10^{-4}	Edmonton, AB (NMP07)	2.44×10^{-3}
Inuvik, NT (NMP10)	2.91×10^{-4}	Amherstburg, ON (NMP01)	2.21×10^{-3}
Whitehorse, YT (NMP28)	2.57×10^{-4}	Yellowknife, NT (CAP16)	2.04×10^{-3}
Edmonton, AB (NMP07)	2.35×10^{-4}	Calgary, AN (NMP06)	1.63×10^{-3}
Ottawa, ON (NMP18)	1.81×10^{-4}	Inuvik, NT (NMP10)	1.58×10^{-3}
Montreal, QC (NMP15)	1.79×10^{-4}	Sidney, BC (NMP37)	1.57×10^{-3}
Regina, SK (NMP23)	1.71×10^{-4}	Regina, SK (NMP23)	1.54×10^{-3}
Sidney, BC (NMP37)	1.69×10^{-4}	Sidney, BC (CAP14)	1.52×10^{-3}
Calgary, AN (NMP06)	1.67×10^{-4}	Montreal, QC (NMP15)	1.28×10^{-3}
Sidney, BC (CAP14)	1.64×10^{-4}	Toronto, ON (NMP21)	1.17×10^{-3}
Ottawa, ON (NMP17)	1.63×10^{-4}	Ottawa, ON (NMP17)	1.13×10^{-3}
Toronto, ON (NMP21)	1.62×10^{-4}	Quebec City, QC (NMP22)	1.13×10^{-3}
St. John's, NL (CAP17)	1.58×10^{-4}	Ottawa, ON (NMP18)	1.08×10^{-3}
Quebec City, QC (NMP22)	1.50×10^{-4}	Digby, NS (NMP12)	1.04×10^{-3}
Greenwood, NS (NMP13)	1.39×10^{-4}	Greenwood, NS (NMP13)	9.79×10^{-4}
Digby, NS (NMP12)	1.39×10^{-4}	Port Hope, ON (NMP36)	9.55×10^{-4}
Port Hope, ON (NMP36)	1.39×10^{-4}	St. John's, NL (CAP17)	8.80×10^{-4}
Moosonee, ON (NMP14)	1.34×10^{-4}	Winnipeg, MB (NMP29)	8.15×10^{-4}
Goose Bay, NL (NMP08)	1.06×10^{-4}	Moncton, NB (NMP35)	6.47×10^{-4}
Charlottetown, PE (NMP04)	9.70×10^{-5}	Vancouver, BC (NMP27)	5.76×10^{-4}
Moncton, NB (NMP35)	8.95×10^{-5}	Charlottetown, PE (NMP04)	5.75×10^{-4}
Winnipeg, MB (NMP29)	8.53×10^{-5}	Moosonee, ON (NMP14)	5.25×10^{-4}
Kuujjuarapik, QC (NMP11)	8.17×10^{-5}	Goose Bay, NL (NMP08)	5.08×10^{-4}
Halifax, NS (NMP09)	7.28×10^{-5}	Halifax, NS (NMP09)	4.87×10^{-4}
Churchill, MB (NMP03)	6.94×10^{-5}	Kuujjuarapik, QC (NMP11)	4.62×10^{-4}
Vancouver, BC (NMP27)	6.15×10^{-5}	Churchill, MB (NMP03)	4.10×10^{-4}

Note: Stations denoted with “CAP” refer to CTBT stations, while “NMP” refer to CRMN stations

3.2.2 Cesium-134 (^{134}Cs) and Cesium-137 (^{137}Cs)

These two isotopes of radioactive cesium were detected at nearly every site in Canada throughout the March to May 2011 period [Figure 9]. The arrival times were within a day to those of ^{131}I. The highest concentrations of ^{137}Cs were more than 10-fold lower than those of ^{131}I and were more scattered. Although ^{137}Cs has a long half-life of 30 years, the concentrations in air decreased to non-detectable levels by the end of May as a result of **wet-deposition** and **dry-deposition** from the atmosphere.

The concentrations of ^{134}Cs were virtually identical to those of ^{137}Cs in nearly every case. This was to be expected, since the ratio of these two isotopes in the Fukushima reactor cores at the time of the accident was known to be approximately 1:1[7]. Considering that ^{134}Cs and ^{137}Cs are not normally found in a 1:1 ratio in the environment, the cesium isotopes measured demonstrates their Fukushima origin. The average weekly concentrations of ^{134}Cs and ^{137}Cs at each Canadian location are shown in rank order in Tables 2 and 3. Full details on the measured concentrations of the cesium isotopes are available in Appendix 3.

[7] Kirchner, G.; Bossewa, P.; De Cort, M. Radioactivity from Fukushima Dai-ichi in air over Europe; part 2: what can it tell us about the accident?. *J. Environ. Radioact*. **2012**, *114*, 35-40.

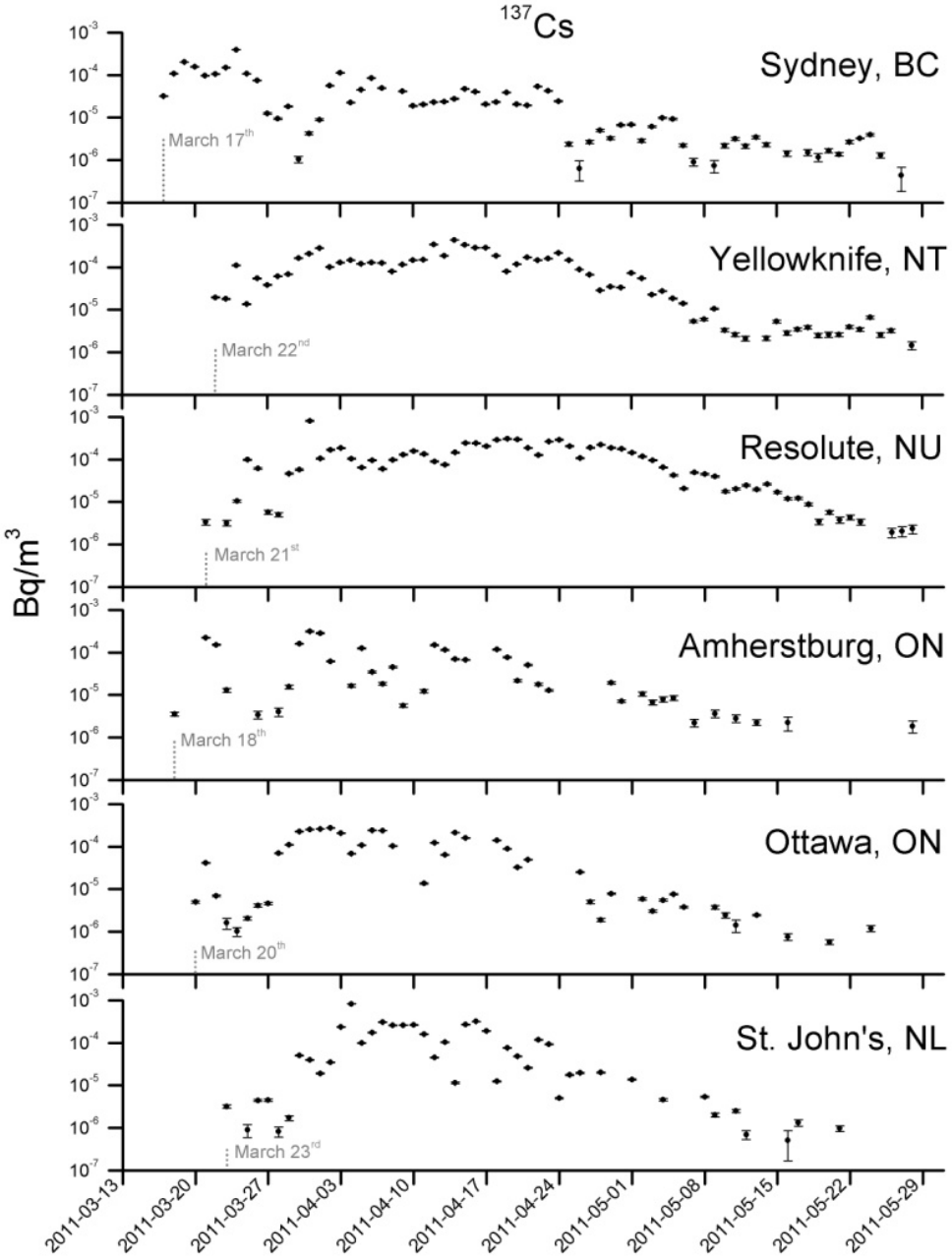

Figure 9: Activity concentration (Bq/m^3) and arrival dates of ^{137}Cs at selected locations across Canada.

Table 2: ^{134}Cs activity concentration data for the time period of 1 March 2011 to 31 May 2011. Presented in rank order from largest to smallest.

Average weekly activity concentration		Maximum weekly activity concentration	
Station	Activity concentration (Bq/m^3)	Station	Activity concentration (Bq/m^3)
Alert, NU (NMP02)	1.38×10^{-4}	Alert, NU (NMP02)	5.19×10^{-4}
Resolute, NU (CAP15)	7.53×10^{-5}	Goose Bay, NL (NMP08)	4.92×10^{-4}
Resolute, NU (NMP25)	7.45×10^{-5}	St. John's, NL (CAP17)	3.12×10^{-4}
Inuvik, NT (NMP10)	7.06×10^{-5}	Yellowknife, NT (CAP16)	3.02×10^{-4}
Goose Bay, NL (NMP08)	6.78×10^{-5}	Resolute, NU (NMP25)	2.77×10^{-4}
Yellowknife, NT (CAP16)	6.63×10^{-5}	Charlottetown, PE (NMP04)	2.72×10^{-4}
Charlottetown, PE (NMP04)	5.04×10^{-5}	Quebec City, QC (NMP22)	2.61×10^{-4}
St. John's, NL (CAP17)	4.56×10^{-5}	Halifax, NS (NMP09)	2.59×10^{-4}
Kuujjuarapik, QC (NMP11)	4.45×10^{-5}	Resolute, NU (CAP15)	2.47×10^{-4}
Halifax, NS (NMP09)	4.45×10^{-5}	Churchill, MB (NMP03)	2.18×10^{-4}
Ottawa, ON (CAP00)	4.33×10^{-5}	Montreal, QC (NMP15)	2.04×10^{-4}
Quebec City, QC (NMP22)	4.22×10^{-5}	Inuvik, NT (NMP10)	2.01×10^{-4}
Moosonee, ON (NMP14)	4.05×10^{-5}	Ottawa, ON (CAP00)	2.04×10^{-4}
Greenwood, NS (NMP13)	4.03×10^{-5}	Moosonee, ON (NMP14)	1.98×10^{-4}
Ottawa, ON (NMP18)	3.95×10^{-5}	Greenwood, NS (NMP13)	1.84×10^{-5}
Montreal, QC (NMP15)	3.58×10^{-5}	Ottawa, ON (NMp18)	1.81×10^{-5}
Churchill, MB (NMP03)	3.49×10^{-5}	Kuujjuarapik, QC (NMP11)	1.79×10^{-4}
Digby, NS (NMP12)	3.35×10^{-5}	Whitehorse, YT (NMP28)	1.76×10^{-4}
Moncton, NB (NMP35)	3.25×10^{-5}	Moncton, NB (NMP35)	1.61×10^{-6}
Whitehorse, YT (NMP28)	2.91×10^{-5}	Digby, NS (NMP12)	1.54×10^{-4}
Ottawa, ON (NMP17)	2.90×10^{-5}	Port Hope, ON (NMP36)	1.48×10^{-4}
Toronto, ON (NMP21)	2.80×10^{-5}	Sidney, BC (CAP14)	1.40×10^{-4}
Sidney, BC (CAP14)	2.71×10^{-5}	Toronto, ON (NMP21)	1.38×10^{-4}
Amherstburg, ON (NMP01)	2.71×10^{-5}	Sidney, BC (NMP37)	1.27×10^{-4}
Sidney, BC (NMP37)	2.57×10^{-5}	Ottawa, ON (NMP17)	1.27×10^{-4}
Port Hope, ON (NMP36)	2.53×10^{-5}	Amherstburg, ON (NMP01)	1.25×10^{-4}
Winnipeg, MB (NMP29)	1.67×10^{-5}	Vancouver, BC (NMP27)	1.06×10^{-4}
Vancouver, BC (NMP27)	1.67×10^{-5}	Winnipeg, MB (NMP29)	9.68×10^{-5}
Edmonton, AB (NMP07)	1.66×10^{-5}	Regina, SK (NMP23)	8.95×10^{-5}
Regina, SK (NMP23)	1.29×10^{-5}	Edmonton, AB (NMP07)	7.58×10^{-5}
Calgary, AB (NMP06)	9.18×10^{-6}	Calgary, AB (NMP06)	2.52×10^{-5}

Note: Stations denoted with “CAP” refer to CTBT stations, while “NMP” refer to CRMN stations

Table 3: ^{137}Cs activity concentration data for the time period of 1 March 2011 to 31 May 2011. Presented in rank order from largest to smallest.

Average weekly activity concentration		Maximum weekly activity concentration	
Station	Activity concentration (Bq/m^3)	Station	Activity concentration (Bq/m^3)
Alert, NU (NMP02)	1.12×10^{-4}	Goose Bay, NL (NMP08)	4.75×10^{-4}
Resolute, NU (CAP15)	4.59×10^{-5}	Alert, NU (NMP02)	4.26×10^{-4}
Resolute, NU (NMP25)	7.42×10^{-5}	St. John's, NL (CAP17)	3.12×10^{-4}
Inuvik, NT (NMP10)	6.79×10^{-5}	Yellowknife, NT (CAP16)	2.89×10^{-4}
Goose Bay, NL (NMP08)	6.46×10^{-5}	Resolute, NU (CAP15)	2.82×10^{-4}
Yellowknife, NT (CAP16)	4.42×10^{-5}	Charlottetown, PE (NMP04)	2.61×10^{-4}
Charlottetown, PE (NMP04)	4.96×10^{-5}	Resolute, NU (CAP15)	2.49×10^{-4}
St. John's, NL (CAP17)	4.51×10^{-5}	Halifax, NS (NMP09)	2.43×10^{-4}
Halifax, NS (NMP09)	4.35×10^{-5}	Quebec City, QC (NMP22)	2.43×10^{-4}
Ottawa, ON (CAP00)	4.28×10^{-5}	Ottawa, ON (CAP00)	2.00×10^{-4}
Kuujjuarapik, QC (NMP11)	4.02×10^{-5}	Montreal, QC (NMP15)	1.97×10^{-4}
Quebec City, QC (NMP22)	4.02×10^{-5}	Churchill, MB (NMP03)	1.97×10^{-4}
Greenwood, NS (NMP13)	3.99×10^{-5}	Greenwood, NS (NMP13)	1.94×10^{-4}
Moosonee, ON (NMP14)	3.84×10^{-5}	Inuvik, NT (NMP10)	1.87×10^{-4}
Ottawa, ON (NMP18)	3.75×10^{-5}	Moosonee, ON (NMP14)	1.85×10^{-4}
Montreal, QC (NMP15)	3.51×10^{-5}	Ottawa, ON (NMP18)	1.82×10^{-4}
Moncton, NB (NMP35)	3.33×10^{-5}	Kuujjuarapik, QC (NMP11)	1.68×10^{-4}
Churchill, MB (NMP03)	3.25×10^{-5}	Whitehorse, YT (NMP28)	1.68×10^{-4}
Digby, NS (NMP12)	3.25×10^{-5}	Digby, NS (NMP12)	1.62×10^{-4}
Ottawa, ON (NMP17)	2.96×10^{-5}	Moncton, MB (NMP35)	1.55×10^{-4}
Whitehorse, YT (NMP28)	2.82×10^{-5}	Port Hope, ON (NMP36)	1.46×10^{-4}
Toronto, ON (NMP21)	2.79×10^{-5}	Toronto, ON (NMP21)	1.42×10^{-4}
Amherstburg, ON (NMP010)	2.71×10^{-5}	Sidney, BC (CAP14)	1.34×10^{-4}
Port Hope, ON (NMP36)	2.46×10^{-5}	Sidney, BC (NMP37)	1.31×10^{-4}
Sidney, BC (NMP37)	2.11×10^{-5}	Ottawa, ON (NMP17)	1.30×10^{-4}
Sidney, BC (CAP14)	2.09×10^{-5}	Amherstburg, ON (NMP01)	1.28×10^{-4}
Vancouver, BC (NMP27)	1.63×10^{-5}	Vancouver, BC (NMP27)	1.06×10^{-4}
Winnipeg, MB (NMP29)	1.63×10^{-5}	Winnipeg, MB (NMP29)	8.99×10^{-5}
Edmonton, AB (NMP07)	1.56×10^{-5}	Regina, SK (NMP23)	8.48×10^{-5}
Regina, SK (NMP23)	1.20×10^{-5}	Edmonton, AB (NMP07)	7.43×10^{-5}
Calgary, AB (NMP06)	8.46×10^{-6}	Calgary, AB (NMP06)	2.46×10^{-5}

Note: Stations denoted with “CAP” refer to CTBT stations, while “NMP” refer to CRMN stations

3.2.3 *Other radioactive aerosols*

A number of other radioactive aerosols (particulates) were occasionally detected, notably cesium-136 (^{136}Cs) and tellurium-132 (^{132}Te), which are shown in Figure 10 as box and whisker plots. Their concentrations in air were more than 10-fold lower than for ^{134}Cs and ^{137}Cs. Full details on the measured concentrations of these radionuclides are also available in Appendix 3.

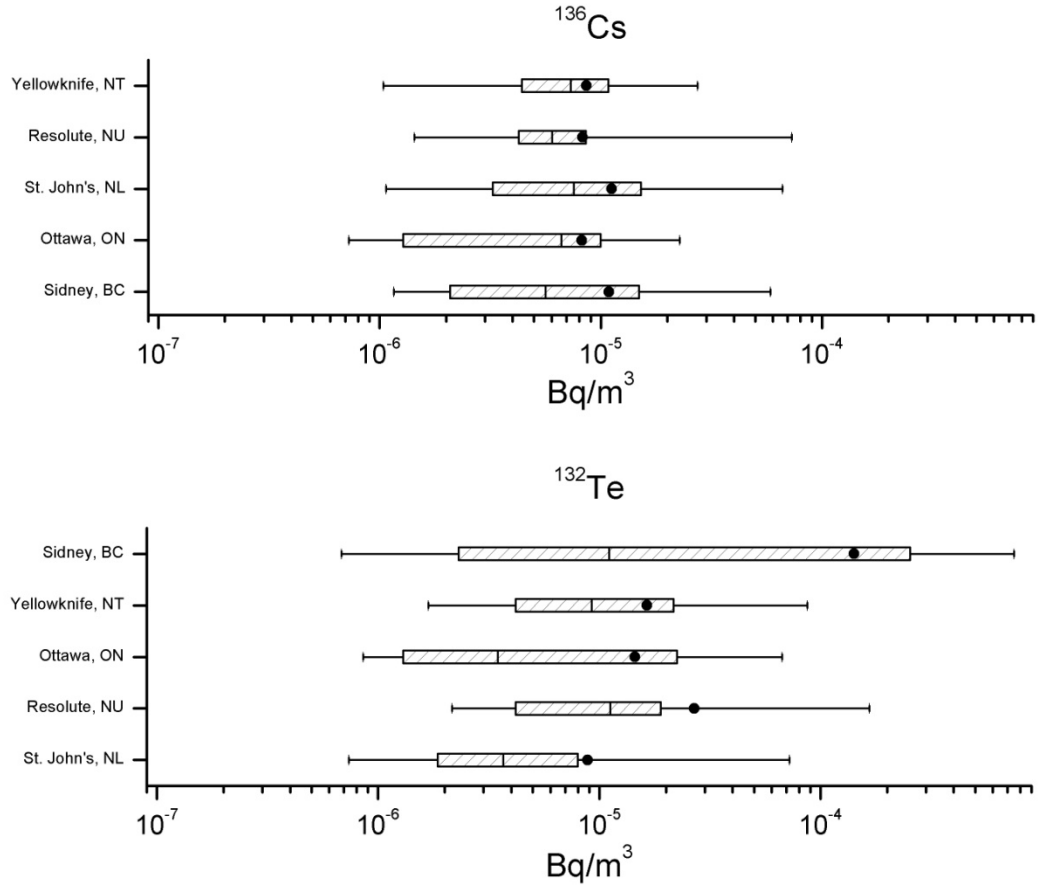

Figure 10: Activity concentrations (Bq/m^3) of particulate ^{136}Cs and ^{132}Te measured at selected stations across Canada.

3.2.4 Radioxenon

The xenon isotopes, xenon-133 (^{133}Xe) (half-life = 5.24 days) and xenon-131m (^{131m}Xe) (half-life = 11.9 days), were detected at all three xenon monitoring sites (St. John's NL, Ottawa ON, and Yellowknife NT). These sites are fully equipped with xenon analysers for the separation

of xenon gas from the air and its subsequent measurement by gamma ray spectrometry. Figure 11 indicates the ranges of their measured values at the three sites. Since the half-life of ^{133}Xe is comparable to global transport times, it was detected throughout most of the Northern Hemisphere. The shorter lived isotope xenon-135 (^{135}Xe) (half-life = 9.14 hours) was detected only sporadically in Ottawa ON but was not from the Fukushima accident; this is a normal detection due to separate routine emissions from a medical isotope production facility in Chalk River ON, 200 km west of Ottawa. Figure 12 shows the time trends in ^{133}Xe levels at sites across Canada for Yellowknife NT (CAX16), St. John's NL (CAX17), and Ottawa ON (CAX05). Spikes observed in the levels of ^{133}Xe in Ottawa ON both earlier and later in time are due to the xenon releases from the Chalk River Laboratory which were added to the Fukushima base contribution. These often appear simultaneous to observations of ^{135}Xe. Full details on the measured concentrations of the xenon isotopes are available in Appendix 4.

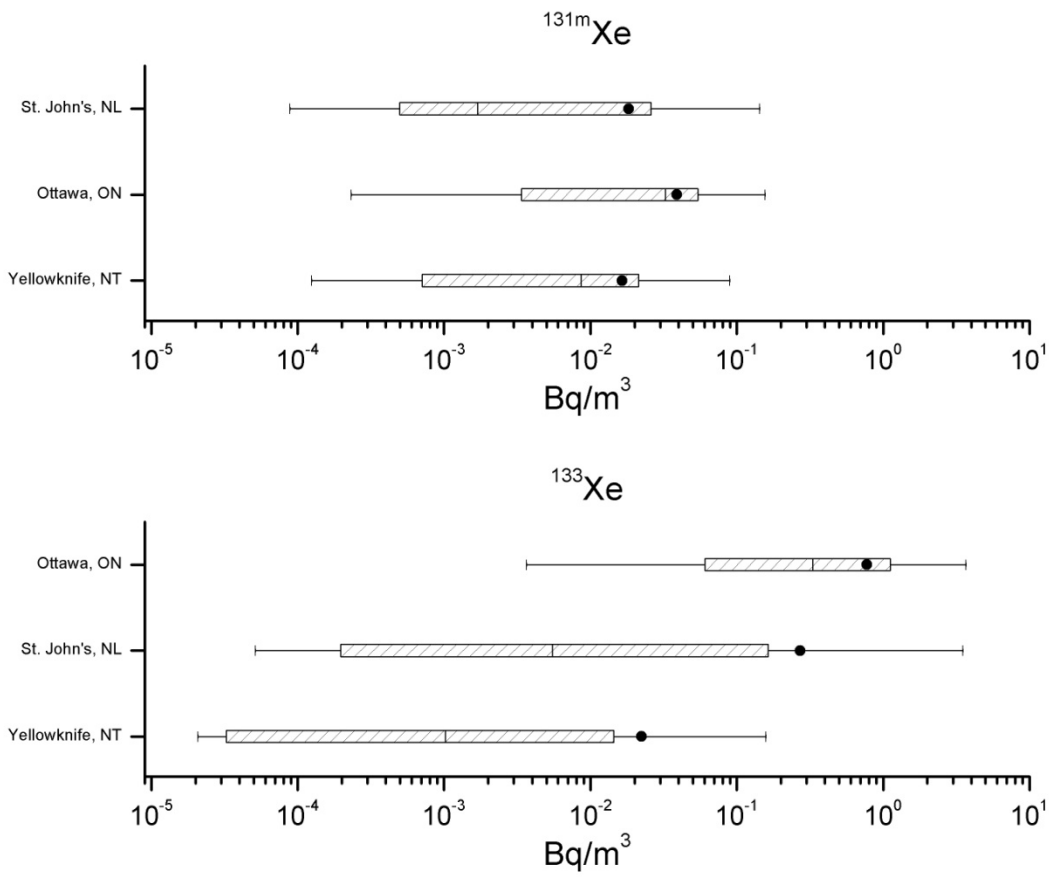

Figure 11: Activity concentrations (Bq/m^3) of ^{131m}Xe and ^{133}Xe gas measured at selected stations across Canada.

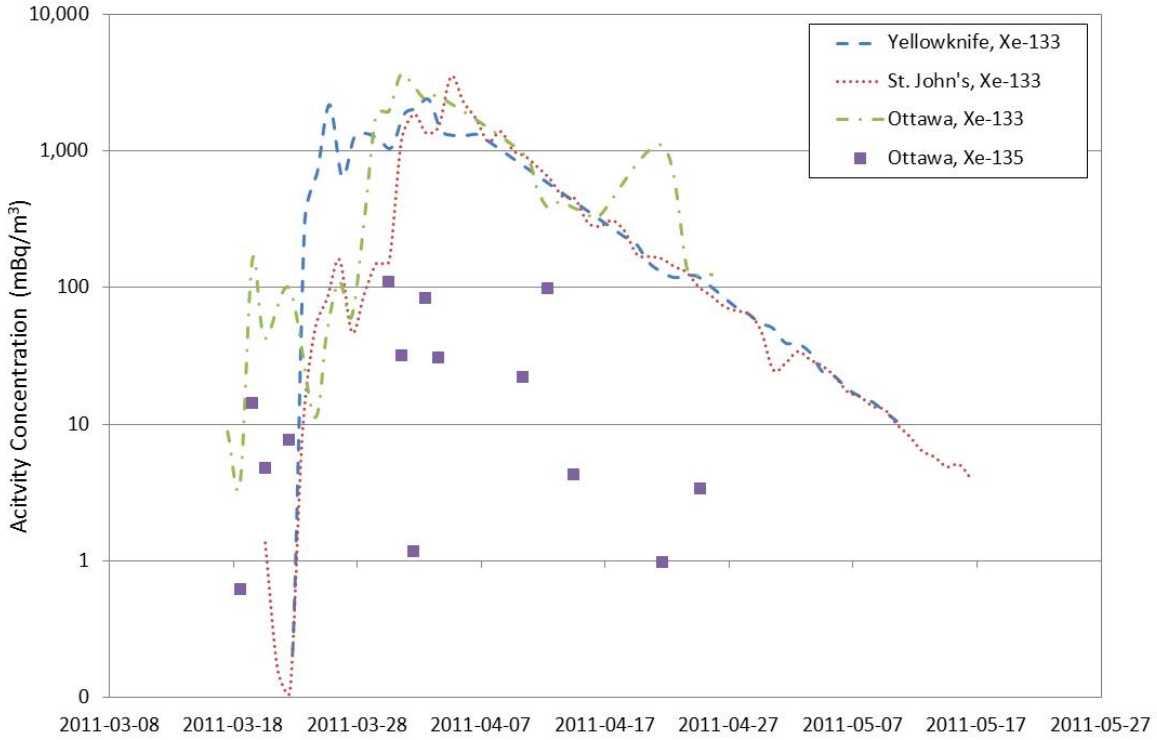

Figure 12: Relative levels and arrival dates of ^{133}Xe at stations in Yellowknife NT (CAX16), St. John's NL (CAX17) and Ottawa ON (CAX05). The Ottawa ^{135}Xe levels are displayed to identify the Ottawa samples also impacted by emissions from the Chalk River Laboratories.

Figure 13 depicts the arrival on the west coast of ^{133}Xe based on gamma ray measurements by detectors in: Vancouver, five locations on Vancouver Island, and in Richland, Washington.[8] The Richland station operated by the Pacific Northwest National Laboratory employed a fully functional xenon analyser which directly measures xenon concentration. The xenon concentrations for the British Columbia sites are not directly available from the FPS systems and had to be estimated from the FPS dose rate data, available online[9] and detailed in

[8] Eslinger, P.W.; Biegalski, S.R.; Bowyer, T.W.; Cooper, M.W.; Haas, D.A.; Hayes, J.C.; Hoffman, I.; Korpach, E.; Yi, J.; Miley, H.S.; Rishel, J.P.; Ungar, K.; White, B.; Woods, V.T. Source term estimation of radioxenon released from the Fukushima Dai-ichi nuclear reactors using measured air concentrations and atmospheric transport modeling. *J. Environ. Radioact.* **2014**, 127, 127-132.

[9] Health Canada. *Monthly Summaries of 2011 Dose Data from the Fixed Point Surveillance Network*, http://www.hc-sc.gc.ca/ewh-semt/contaminants/radiation/surveill/data-donnees/data-donnees-2011-eng.php#vancouver, and http://www.hc-sc.gc.ca/ewh-semt/contaminants/radiation/surveill/data-donnees/data-donnees-2011-eng.php#region, (accessed Mar 13, 2015)

Appendix 2. The dose rate data can be converted to an air concentration using a factor of 2.6 ± 0.2 picogray per hour (pGy/hr) per Bq/m^3, derived from Monte Carlo simulation and empirical cross-calibration.[10] The levels peaked between 20 and 21 March 2011 (11 days after the accident) and trailed off below the FPS ability to detect xenon a week later.

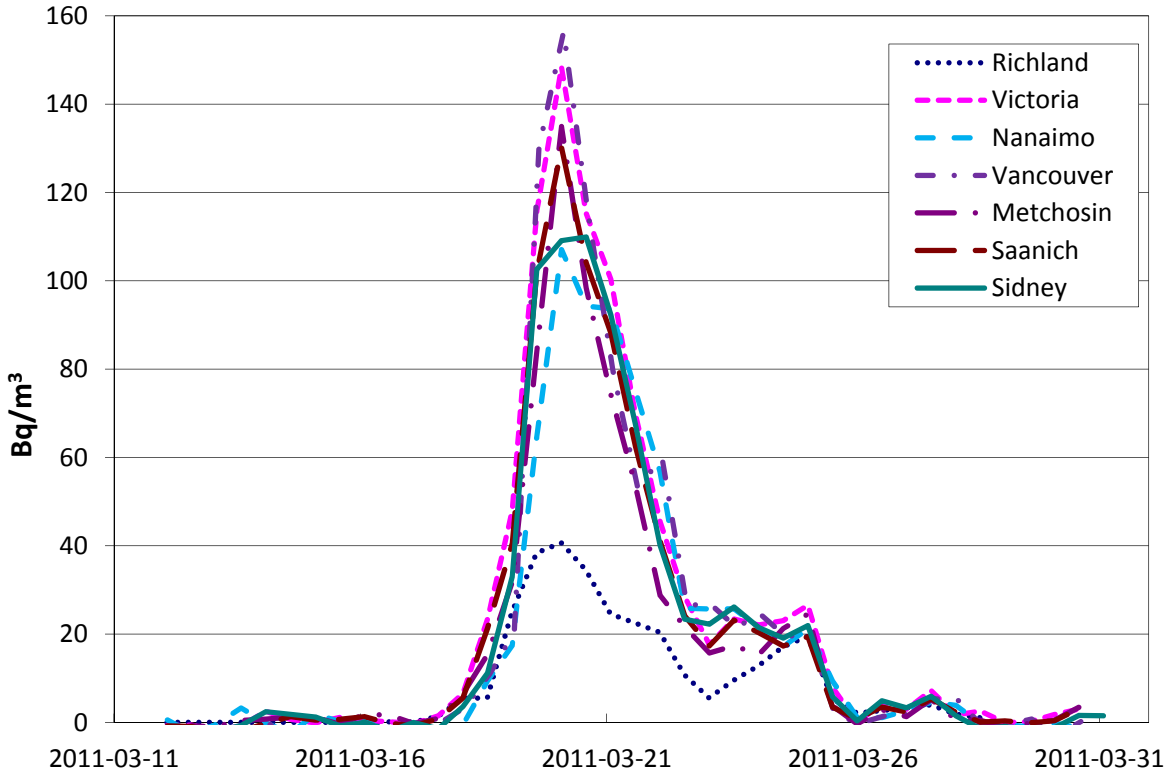

Figure 13: Relative levels and arrival dates of ^{133}Xe at selected locations in British Columbia and Washington State between 11 March 2011 and 31 March 2011.

[10] Stocki, T.J.; Beaton, L.; Tran, A.; Bock, K.; Ungar, R.K. Simulations of semi-infinite clouds of 133Xe. *Nuc. Instrum. Methods. Physics Res., Sect A.* **2007**, *580(1)*, 683–686.

3.3 Precipitation and deposition

Of the 52 monthly precipitation samples from the CRMN for the months of March and April 2011, 38 provided sufficient precipitation to allow direct gamma spectroscopic measurement. Under normal circumstances, only gross alpha/**beta** measurements are conducted on 3-month composites drawn from these monthly samples. In contrast, standard partial samples were selected from each precipitation sample and directly analysed for gamma radiation emitting contaminants. This allowed estimation of the contaminant activity in the entire sample determined from the monthly rainfall at the station location and hence an estimate of its deposition as an activity per square meter of land area (Bq/m^2).

3.3.1 Cesium-134 and Cesium-137

No ^{134}Cs or ^{137}Cs was observed in the precipitation samples, in part due to approximate detection limits that ranged from an equivalent of about 3 to 100 Bq/m^2 deposition, depending on total precipitation. Deposition values expected for Canada were typically at this level or less (see Section 4.4), possibly explaining the non-detection of cesium. Furthermore, the RPB conducted the precipitation measurements using only a portion of the sample in a simple semi-quantitative screening method. This non-routine approach is used when rapid processing of more samples is desired in order to identify highly impacted locations in need of further field study, for example in the event of domestic accidents and emergencies. Unlike ^{131}I which was largely present in the form of a precipitation soluble gas (see Section 5.2.1), the cesium would have been attached to a small number and a small fraction of aerosol particles. Hence, it is possible that a portion of these particles may have settled or attached to the sample container walls prior to the transfer to the measurement device leading to underestimation of the cesium activity.

3.3.2 Iodine-131

In four instances (March samples for Vancouver BC, Calgary AB, Winnipeg MN, and Ottawa ON), ^{131}I was observed at levels ranging from 0.5 to 5 Bq/kg in precipitation. These values were decay corrected to 24 March 2011, the approximate mid-point between the arrival of the radioactive contaminants and the end of the precipitation sampling period. Owing to the short half-life of ^{131}I of 8 days compared to this relevant 14 day period, only an approximate

deposition can be estimated. The average deposition for the month, which was also decay corrected to 24 March 2011, was 69 Bq/m^2 for Vancouver; 124 Bq/m^2 for Calgary; 133 Bq/m^2 for Winnipeg; and 88 Bq/m^2 for Ottawa. As expected, they are on the lower end of values observed in the United States[11] since higher contaminant levels were experienced in US air space (Biegalski et al[12] and see Section 4.4). This range at the low end may also reflect the relatively few iodine measurements available compared with the number of measurements made in the U.S. Geological Survey (USGS) study[13].

3.4 Domestic and Imported foodstuffs

From April 2011 to December 2012, over five hundred imported and domestic foodstuff samples were assessed which included the 2012 Health Canada Total Diet Study with its focus that year on British Columbia[14]. This represents almost a tripling of samples normally analysed by the RPB on an annual basis. Over half the samples were special analyses of imports from Japan.

An additional 12% of samples were targeted to ensure no significant contaminants were present in BC domestic fish or milk in the months immediately following the Fukushima accident. The number of samples analysed, categorized by sample type and origin, are given in Figure 14. These samples were analysed for gamma radiation emitting contaminants, with the milk also analysed for beta radiation emitting strontium.

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[11] Wetherbee, G.A.; Debey, T.M.; Nilles, M.A.; Lehmann, C.M.B.; Gay, D.A. *Fission Products in National Atmospheric Deposition Program—Wet Deposition Samples Prior to and Following the Fukushima Daiichi Nuclear Power Plant Incident, March 8–April 5*, Open-File Report 2011-1277; U.S. Geological Survey, 2011.

[12] Biegalski, S.R.; Bowyer, T.W.; Eslinger, P.W.; Friese, J.A.; Greenwood., L.R.; Haas, D.A.; Hayes, J.C.; Hoffman, I.; Keillor, M.; Miley, H.S; M. Moring. Analysis of Data from Sensitive U.S. Monitoring Stations for the Fukushima Daiichi Nuclear Reactor Accident. *J. Environ. Radioact.* **2012,** *114*, 15-21.

[13] Wetherbee, G.A.; Debey, T.M.; Nilles, M.A.; Lehmann, C.M.B.; Gay, D.A. *Fission Products in National Atmospheric Deposition Program—Wet Deposition Samples Prior to and Following the Fukushima Daiichi Nuclear Power Plant Incident, March 8–April 5*, Open-File Report 2011-1277; U.S. Geological Survey, 2011.

[14] Health Canada. *Canadian Total Diet Study.* 2012-2013, Ottawa.

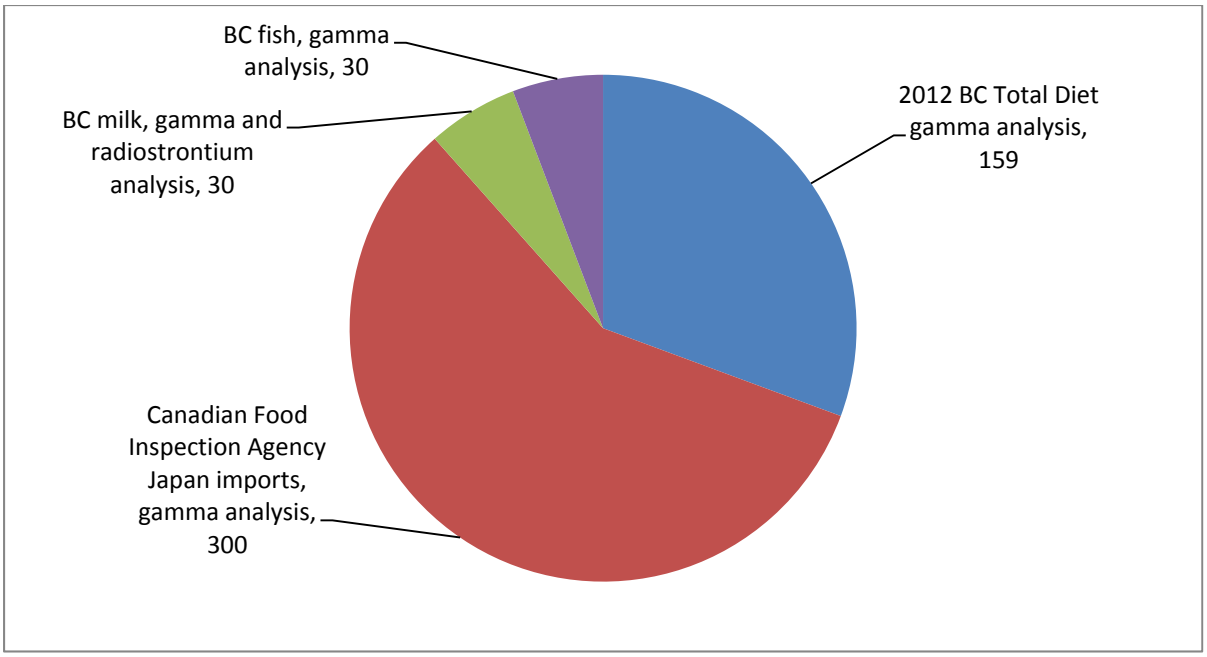

Figure 14: Type and origin of foodstuff samples analysed, analysis method, and number of samples

Of the 159 domestic Total Diet Survey samples, no radioactive contaminants were detected, meaning there was fewer than 3 Bq/kg of radioactive cesium, far below any level considered to be of potential harm.[12] Similarly, milk and fish samples from British Columbia were free of detectable Fukushima contaminants, with small amounts of long lived (half-life of 28.8 years) strontium-90 (^{90}Sr) being observed in milk. The milk samples were found to have radioactivity levels similar to milk tested before the Fukushima accident. These samples contained only long-lived ^{90}Sr and no shorter-lived (half-life of 50 days) strontium-89 (^{89}Sr). Hence, the observed strontium was not of Fukushima origin.

Of the 300 food samples from Japan provided by the CFIA, only 6 dried tea samples and one dried fish sample registered radioactive contaminants from the accident. The tea ranged from 4 to 80 Bq/kg of ^{134}Cs and ^{137}Cs and the dried fish contained about 4 Bq/kg of ^{134}Cs and ^{137}Cs each. The samples indicated that these products were safe for ingestion as they were all below the international and domestic radionuclide guidelines for food control.[15]

[15] The CODEX Alimentarius. *Fact Sheet on Codex Guideline Levels for Radionuclides in Foods Contaminated Following a Nuclear or Radiological Emergency*; Health Canada. *Guidelines for the Restriction of Radioactively Contaminated Food and Water Following a Nuclear Emergency*. 2000. http://www.hc-sc.gc.ca/ewh-semt/pubs/contaminants/emergency-urgence/index-eng.php (accessed Mar 13, 2015).

3.5 Miscellaneous samples

In addition to the domestic and imported foodstuffs, the CBSA in British Columbia provided a small number of miscellaneous samples, for example swipes of cargo containers. No traces of contaminants from the accident were detected among these samples.

4. Results of Atmospheric Transport and Dispersion Modelling

Throughout the entire period of the Fukushima response, the RPB worked in close collaboration with atmospheric modellers at the CCMEP of Environment Canada in order to assess potential impacts. These modelling activities aided in three ways during the accident:

(1) From the first announcement of the accident, the models were run in the forward mode using analyzed and forecast meteorological fields to predict when and where radioactivity would arrive in Canada. This aided greatly in response planning.

(2) During the data collection phase, the models were fine-tuned using the measured concentrations of radionuclides in air, both from the Health Canada networks and the worldwide CTBTO IMS. It was then possible to run the models in backward mode to assess the sensitivity of the model and estimate the actual amounts of radioactivity released from the Fukushima accident. This information can often be difficult to obtain during a major nuclear accident.

(3) After all of the radioactivity had settled out of the atmosphere, the models were used to calculate the amount of radioactivity deposited on the ground. This was carried out for the entire country, and was particularly valuable in areas where no monitoring results were available.

4.1 Brief Description of the Dispersion Model Used (*Modèle Lagrangien de Dispersion de Particules d'ordre 0 or MLDP0*)

CCMEP's operational atmospheric transport and dispersion model MLDP0 was used to assess the health and environmental impacts of the radioactive release from Fukushima across North America. MLDP0 is a Lagrangian particle dispersion model of zeroth order designed for

long-range dispersion problems, described in detail in D'Amours and Malo[16] and D'Amours et al.[17] The dispersion model provides the numerical equivalent of releasing a large number of particles into the air and tracing their trajectories considering, among other factors, the estimated 3-D paths of the wind in time. MLDP0 uses the full 3-D meteorological fields provided by a numerical weather prediction system. In this case, the fields of wind, moisture, temperature and geopotential heights are obtained from the CCMEP's Canadian Global Environmental Multiscale model forecasts and objective analysis systems normally used in weather prediction. Thus, MLDP0 is also able to estimate physical loss and ground deposition effects such as radioactive decay, **wet scavenging**[18], dry deposition and **gravitational settling** by calculating the amount of material removed from the carrier particle as it travels in through the atmosphere.

4.2 Modelling Results

The CCMEP models capture the path and distribution of the airborne radioactive contaminants from their elevated levels when departing Japan through their transit over the Pacific Ocean where they become broadly distributed, low concentration air masses. The models predicted the arrival of these air masses in North America, first in Alaska and California then over a period of one or two days in British Columbia, Southern Ontario, and the Canadian Arctic at similar concentration levels. For example, Figure 15 shows ^{137}Cs air concentrations travelling as a low-level contaminated air mass. Figure 15 c) and 15 d) in particular can be compared favourably to actual measurements and arrival times as depicted in Figure 16. Also depicted in Figure 15 are the measurement network sites (the CRMN and the CTBTO's IMS network) that were available to compare with the model estimates.

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[16] D'Amours, R.; Malo, A. *A Zeroth Order Lagrangian Particle Dispersion Model MLDP0*, Canadian Meteorological Centre, Environmental Emergency Response Section, Dorval, QC, Canada, 1-19, http://eer.cmc.ec.gc.ca/publications/DAmours.Malo.2004.CMC-EER.MLDP0.pdf (accessed on Mar 13, 2015).

[17] D'Amours, R.; Malo, A.; Servranckx, R.; Bensimon, D.; Trudel, S,; Gauthier, J.P.. Application of the atmospheric Lagrangian particle dispersion model MLDP0 to the 2008 eruptions of Okmok and Kasatochi volcanoes, *J. Geophys. Res.[Online]* **2010,** *115*. *http:/onlinelibrary.wiley.com/enhanced/doi/10.1029/2009JD013602/%20* (accessed Mar 13, 2015).

[18] Wet scavenging is treated with a simple scheme and will occur when a particle is presumed to be in a cloud (in-cloud scavenging) and is modelled in terms of a wet scavenging rate. Below-cloud scavenging is not yet considered in the operational version of MLDP0. The tracer removal rate is proportional to the local cloud fraction (parameterized as a function of relative humidity) and the particle mass.

This agreement between the modelled and measured concentrations for ^{137}Cs and ^{133}Xe is quite good, usually less than a factor of 10. ^{131}I was more difficult to model owing to its complex chemistry. As an example, Figure 16 shows a model-observation comparison for ^{137}Cs for near-surface air concentrations in Sidney, BC. Both model predictions from MLDP0 and measurement values from the CTBTO IMS network are averaged over a 24-h period. This time series shows a strong correlation between the predicted concentrations and the measurements. MLDP0 is able to capture three main events:

1) the arrival of the plume on 18 March 2011
2) the peak observed between 19 and 22 March 2011
3) the peak observed on 25 March 2011

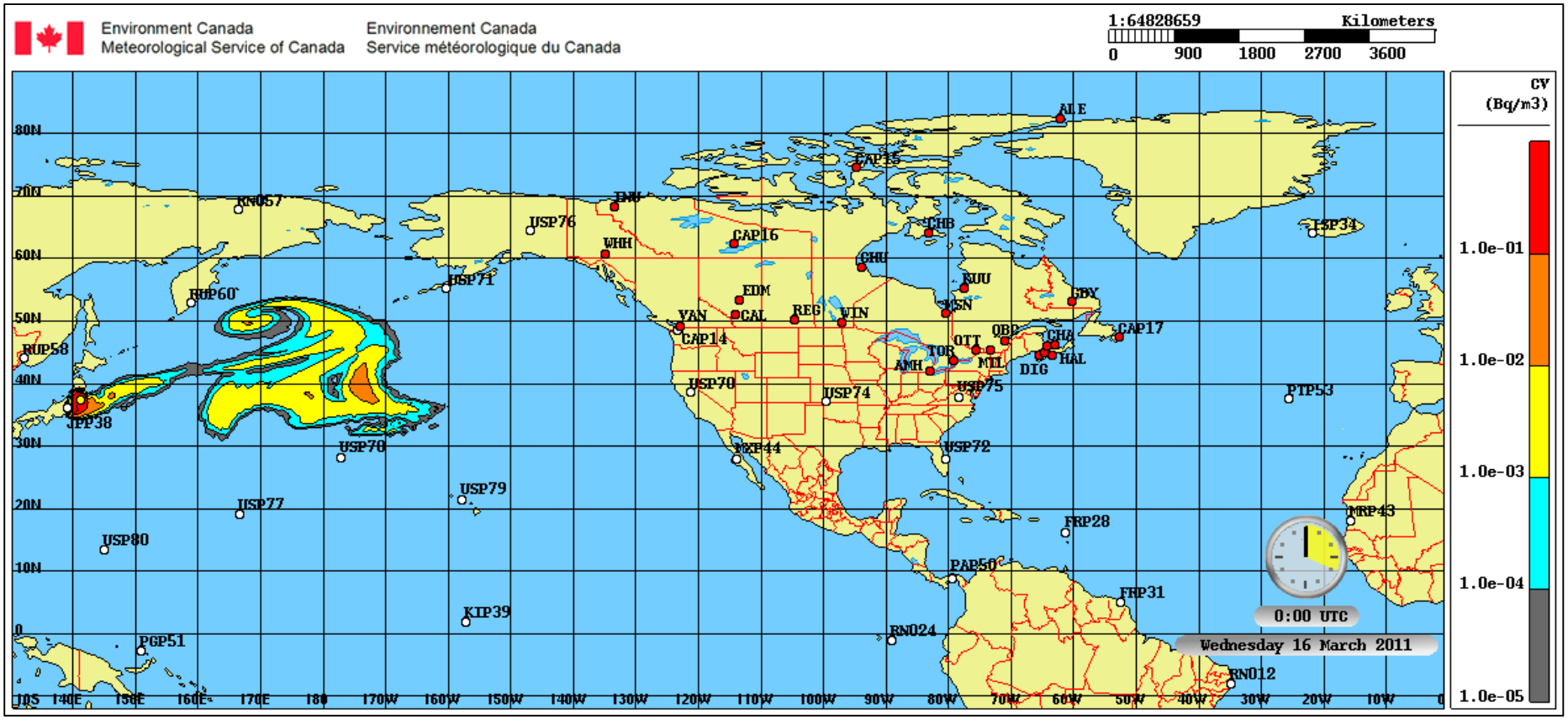

Figure 15 a: Modelled ^{137}Cs contaminant concentrations (Bq/m^3) in air masses for 2011 March 16.

CRMN stations are depicted by red circles, while CTBTO IMS stations are depicted by white circles.

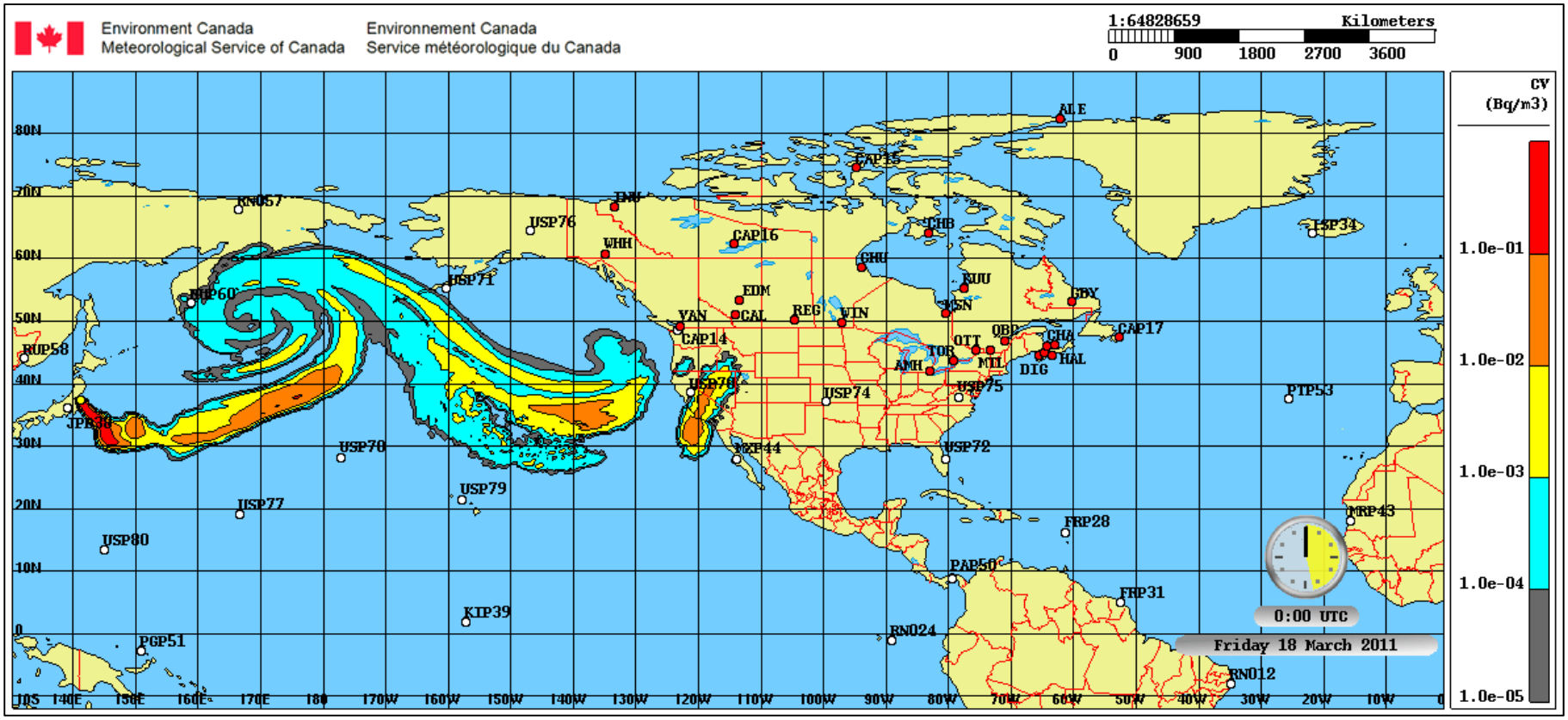

Figure 15 b: Modelled ^{137}Cs contaminant concentrations (Bq/m^3) in air masses for 2011 March 18.

CRMN stations are depicted by red circles, while CTBTO IMS stations are depicted by white circles.

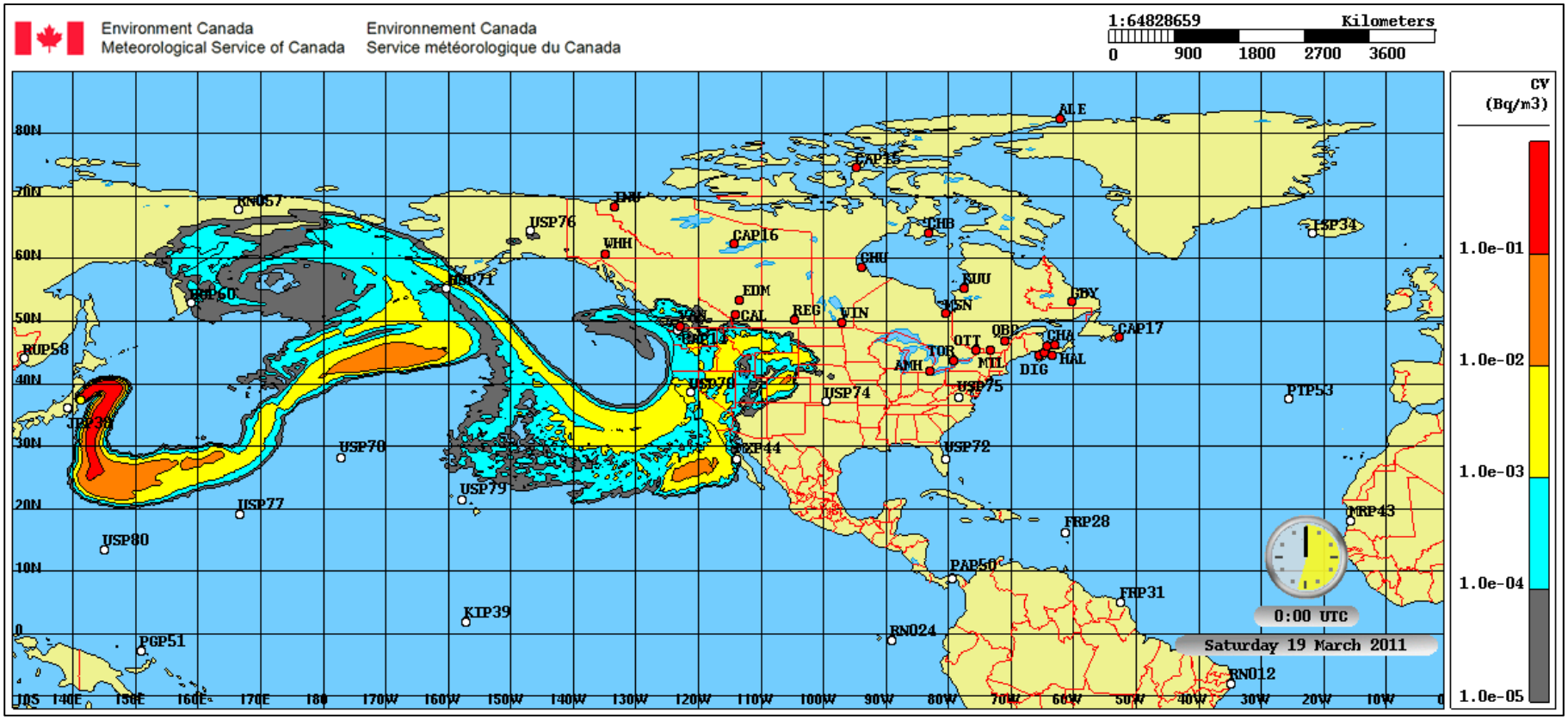

Figure 15 c : Modelled ^{137}Cs contaminant concentrations (Bq/m^3) in air masses for 2011 March 19.

CRMN stations are depicted by red circles, while CTBTO IMS stations are depicted by white circles.

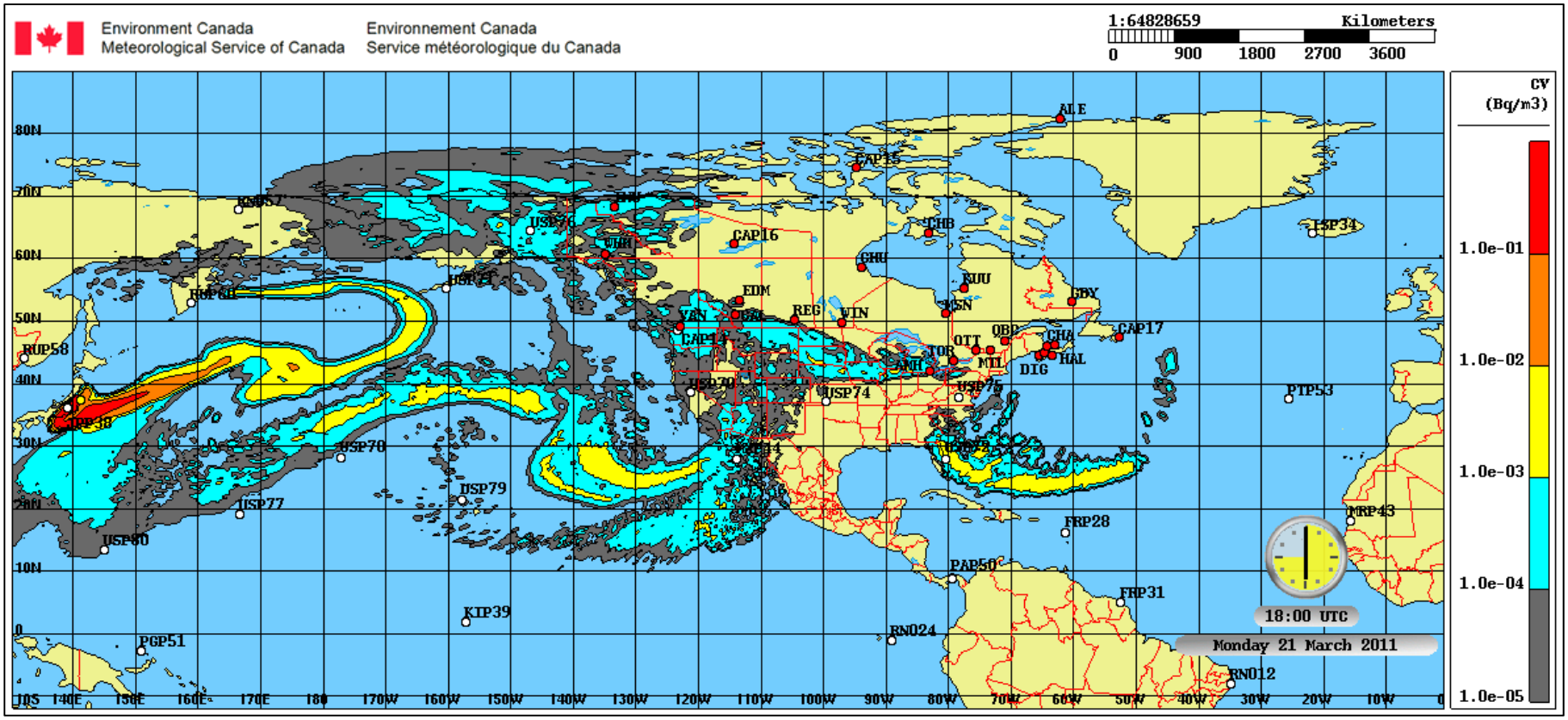

Figure 15 d: Modelled ^{137}Cs contaminant concentrations (Bq/m^3) in air masses for 2011 March 21.

CRMN stations are depicted by red circles, while CTBTO IMS stations are depicted by white circles.

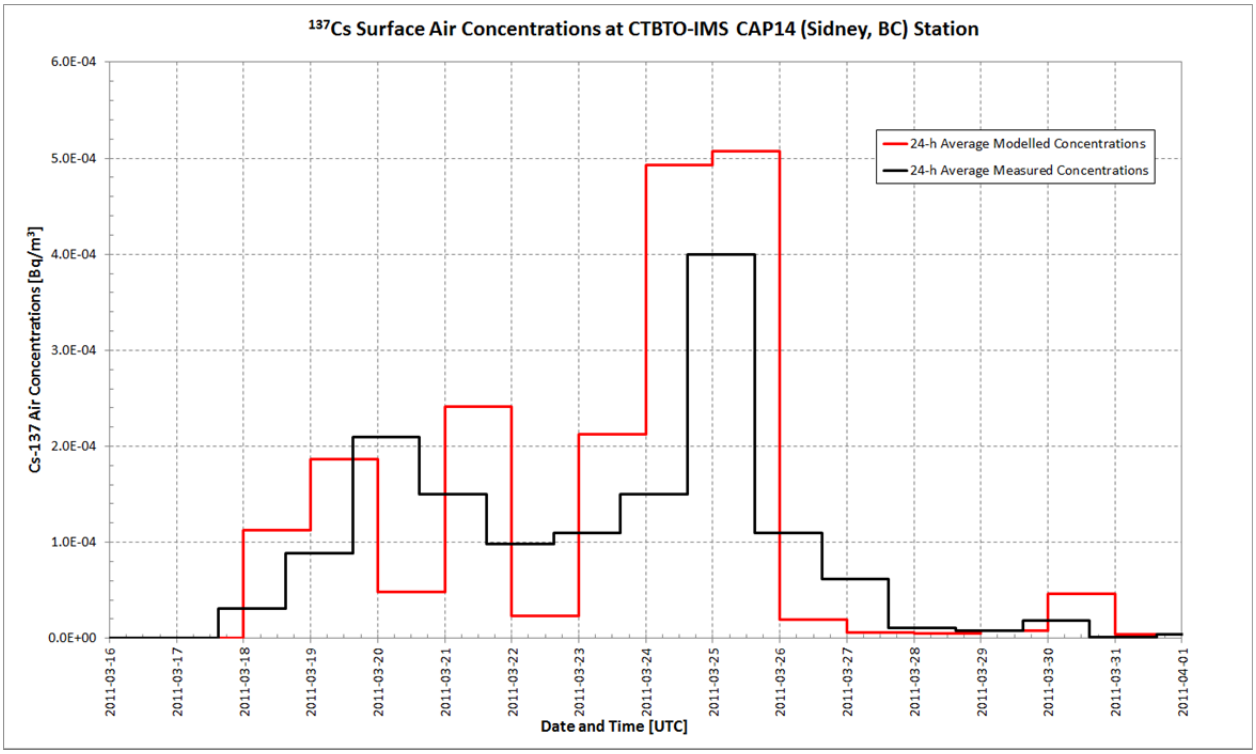

Figure 16: Comparison of modelled and measured air concentrations of ^{137}Cs for Sidney, BC

When evaluating potential risks of exposure, it is important to account for the total accumulated exposure from contaminants persisting in the environment, both in the air as contaminated air masses and from deposition on the ground. Very few measurements that account for this are available for Canada. Here, the models provide a comprehensive picture even where no measurement data was available.

By mid-May, concentrations of ^{137}Cs in air had essentially returned to background levels (see Figure 9 and Appendix 3). Figure 17 depicts the ^{137}Cs cumulative time-integrated air concentration (Bq h/m^3) over North America up to 16 May 2011. Calculated air concentrations near the surface are summed each hour over a nine-week period from the start of the accident emissions to mid-May. The result of this calculation can be interpreted as an average exposure. They may be compared, approximately, to average concentration values in Table 3 by dividing the values on the map by the nine week (1,536 hour) period considered in the calculation. Charts showing this quantity are used to compare one region to another having exposures at different times and durations and to facilitate estimation of any additional risk (caused by inhalation of the contaminant or exposure to external gamma radiation, cloudshine) on a common basis. The

maximum values do not constitute a significant increase in exposure compared to normal background (see Section 5). The range from highest concentration to lowest concentration does not widely vary, i.e. only by a factor of about 30. Finally, some of the highest expected concentrations in air were over the Canadian Arctic and Ontario and Quebec, not over Vancouver and Vancouver Island as often is assumed. This last observation may seem strange until one considers the nature of the transport of gases and aerosols of large-scale air masses. While travelling over the Pacific, there is little mixing/diffusion within the large scale air masses so that the level of contamination of the air masses is nearly constant. As they drifted over the North American continent as seen in Figure 15 d), the average concentration is impacted by where they drift and how long they persist more than when their first glancing edges arrive.

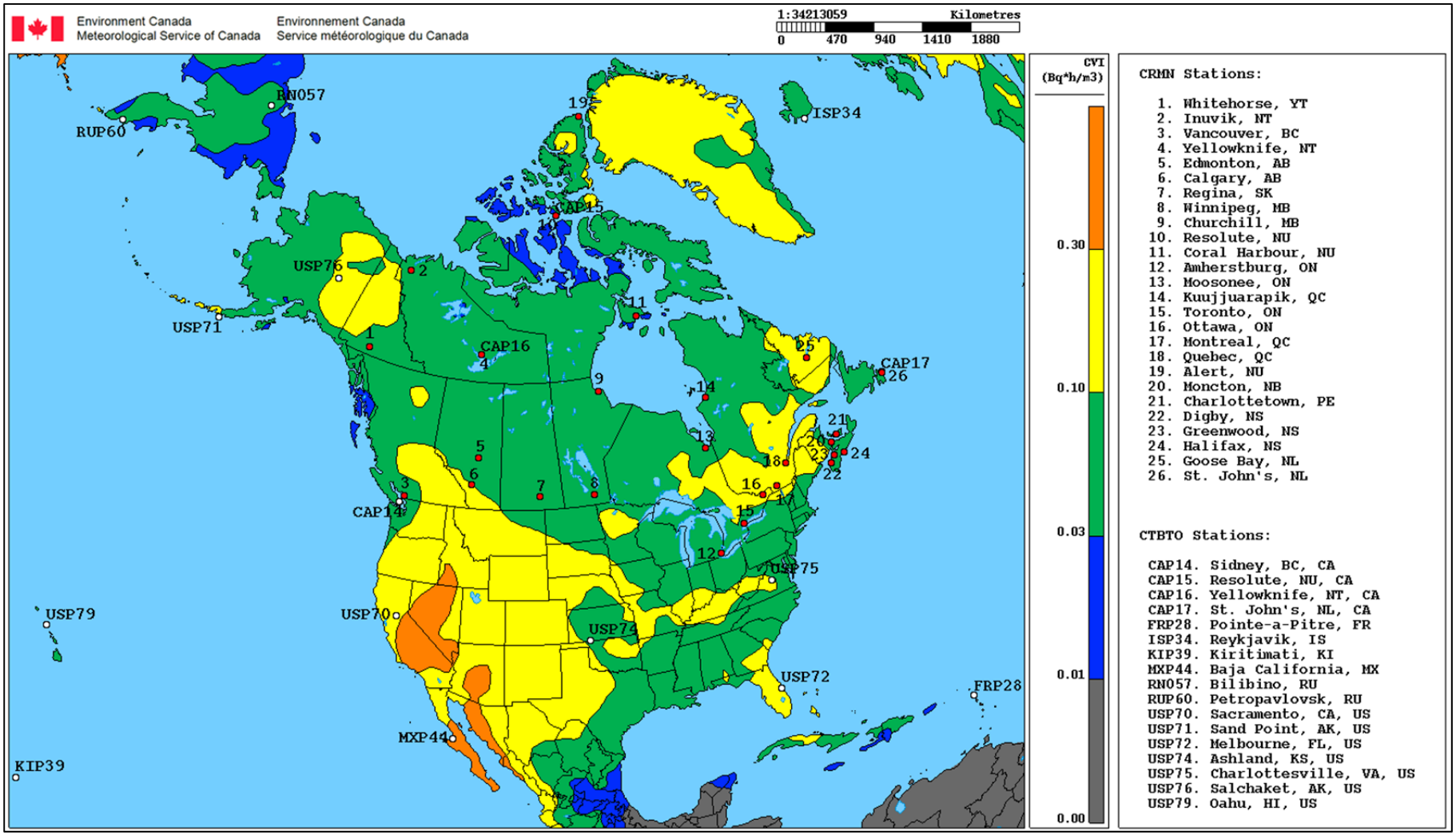

Figure 17: 9-week cumulative time-integrated air concentrations (Bq h /m^3) of ^{137}Cs contaminant over North America, valid 16 May 2011 at 00 UTC. CRMN stations are depicted by red circles, while CTBTO IMS stations are depicted by white circles.

Total deposition of contaminants onto the ground (Bq/m^2) may also be modelled, as seen in Figure 18. Settling of particulate contaminants, for example ^{137}Cs, through both dry deposition and wet scavenging (removal processes such as rain, snow, fog etc.) are considered, with the latter processes typically dominating. Gravitational settling was not considered in the simulations. The deposition pattern is somewhat different than that of the air concentrations depicted in Figure 17. Although there is no significant exposure risk compared to normal background radiation (see Section 5), the Vancouver and Vancouver Island areas had higher predicted amounts of contaminants deposited per area of the earth's surface. This was largely related to rain and other precipitation at the time. In contrast, the Canadian Arctic with its low rates of snow from March to May had relatively little deposition. The range of deposition also varied more widely than the air concentrations, with the variation being more than 100 fold. This is in keeping with the importance of presence or absence of precipitation and amount of precipitation at key junctures in the transit of the contaminated air masses over a region. Finally, the models provide broad scale averages that only hold true when actual concentrations are summed over broad areas. The values at any given location in these zones will vary significantly from these averages, as they will depend heavily on the actual amount of local precipitation. Despite these qualifications, the levels of deposition predicted agreed quite well with those measured in the USGS precipitation monitoring network.[11]

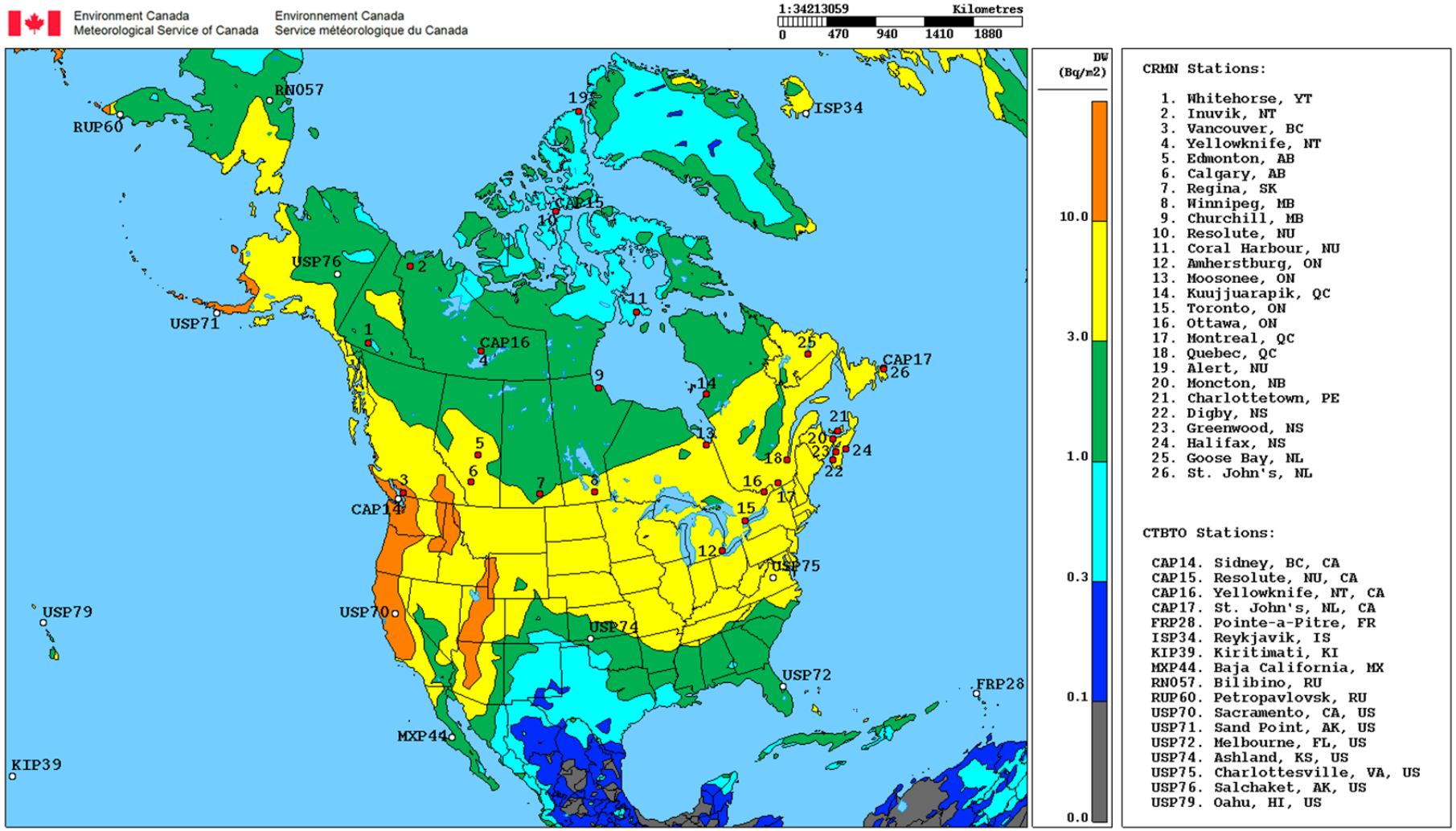

Figure 18: 9-week cumulative total ground concentration (Bq/m^2) of ^{137}Cs contaminant over North America, valid 16 May 2011 at 00 UTC. CRMN stations are depicted by red circles, while CTBTO IMS stations are depicted by white circles.

5. Health Impact of the Fukushima Accident on Canadians

Radiological human health risk assessments are generally based on the estimated radiation dose received by a representative individual in a population. The most useful quantity for low levels of exposure is the **effective dose**, which is expressed in the unit sieverts (Sv) or in this case microsieverts (μSv). Note that a μSv is a very small fraction of the normal background radiation dose. The total dose from normal background radiation in Canada is 2,000 – 3,000 μSv per year (μSv/year). A typical chest x-ray gives an additional dose of about 20 μSv.

The estimated doses due to contaminates from Fukushima, in the first year following the accident, showed very little variation across Canada with the doses to an adult ranging from 3.8 – 4.4 μSv, doses to a 10 year old child ranging from 1.8 – 2.4 μSv, and doses to a 1 year old infant ranging from 1.1 – 1.9 μSv. Even the maximum calculated dose of 4.4 μSv is a small fraction of the 2,000 – 3,000 μSv dose from natural background in Canada [Figure 19].

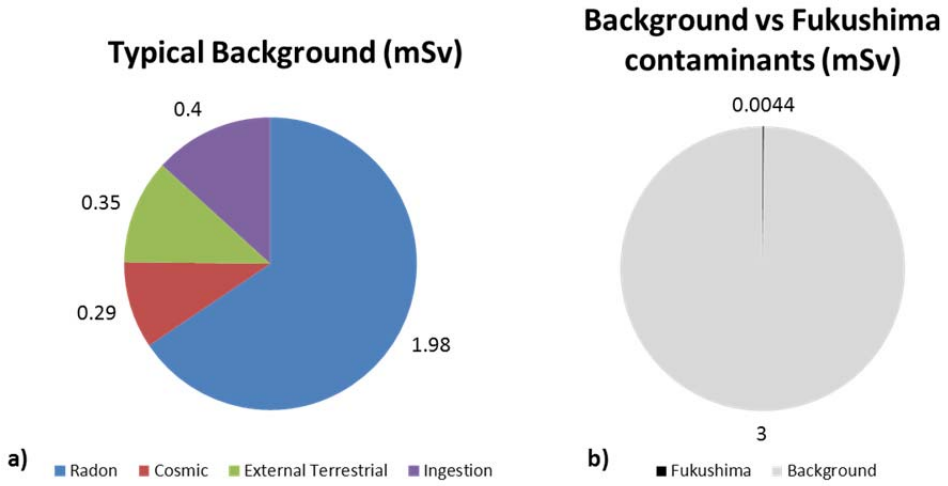

Figure 19: Comparison of (a) normal annual natural background radiation dose and its sources to (b) the relative maximum dose estimated from Fukushima contaminants in the first year following the accident.

5.1 Total Doses from External Radiation

A direct indication of dose from external radiation can be obtained from the TLD measurements in Figure 6. Typical exposures across Canada are of the order of 60 nanogray (nGy) per hour which corresponds to about 500 μSv/year. This exposure is due to a combination

of naturally occurring sources including radionuclides in rocks and soils and cosmic radiation from outer space that interacts with the earth's atmosphere. The remainder of the 2,000 to 3,000 μSv/year background radiation dose is due mainly to internal exposure from natural radionuclides – particularly radon decay products which are inhaled into the lungs. As seen in Section 3.1, any increases in the total background dose following the Fukushima accident were indistinguishable from normal fluctuations in background radiation across Canada.

5.2 Radiation Doses from Specific Radionuclides

As described previously, specific identifiable radionuclide contaminants originating from the Fukushima accident did enter Canadian air space and their measured concentrations can be used to calculate small incremental increases in total radiation exposure. Generally there are four major pathways by which radionuclides in the environment may reach the human body [Figure 20]:

(1) *Cloudshine* or external radiation exposure from immersion in a cloud of radioactivity.
(2) *Groundshine* or external radiation exposure from radioactivity deposited on the ground.
(3) *Inhalation* of airborne radioactive particulates and their deposition and absorption in the lungs as well as transport by the bloodstream to other parts of the body.
(4) *Ingestion* of radionuclides by uptake through the food chain and their deposition and absorption in the gastro-intestinal tract or transport by the bloodstream to other parts of the body.

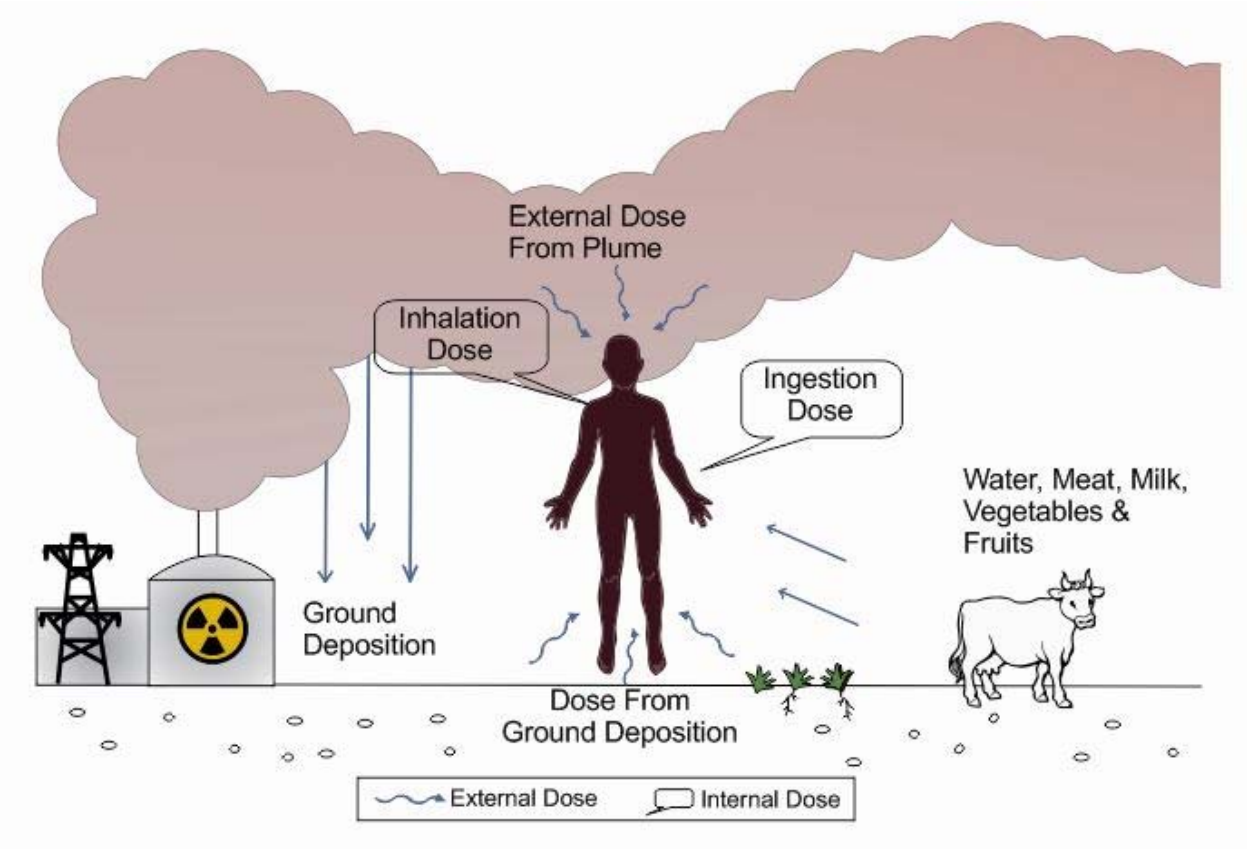

Figure 20: Possible pathways for exposure to radiation in the environment[19]

The doses resulting from exposure to ^{131}I, ^{134}Cs, ^{137}Cs, and ^{133}Xe following the Fukushima accident were assessed with regard to these four main exposure pathways. Although other radionuclides were detected in air, specifically ^{136}Cs and ^{132}Te, the dose from exposure to these radionuclides would be negligible due to their short half-life and low abundance. Representative adults, 10 year old children, and 1 year old infants were included in the dose calculations and lifetime doses were calculated for exposure from the first year following the Fukushima accident. The International Commission on Radiological Protection (ICRP) recommends the use of these three age categories to characterise the radiological impact of an exposure and to ensure consideration of younger, more sensitive populations[20]. The

[19] Health Canada. Federal Nuclear Emergency Plan, Part 1: Master Plan (5th edition). Ottawa. 2014. http://www.hc-sc.gc.ca/hc-ps/pubs/ed-ud/fnep-pfun-1/index-eng.php (accessed Mar 13, 2015).

[20] International Commission on Radiological Protection (ICRP). *Assessing Dose of the Representative Person for the Purpose of Radiation Protection of the Public and the Optimisation of Radiological Protection: Broadening the Process*. ICRP Publication 101; 2006.

considerations for each radionuclide included in the dose assessment, with a description of the relevant pathways, are provided below. It should be noted that there is a large amount of uncertainty when completing this type of assessment; however, conservative values were used whenever possible to ensure a "worst-case" scenario estimate. A discussion of some of the considerations used in the dose assessment is provided in the following sections; however, further details are available in Appendix 5.

5.2.1 Iodine-131

The main pathways of ^{131}I exposure are cloudshine and inhalation. Once inhaled, radio-iodine is selectively taken up and concentrated by the thyroid gland. Consequently, the thyroid can receive an elevated dose which is of particular concern to infants and small children. Although some deposition of ^{131}I was shown in the precipitation measurements (see Section 3.3.2), due of its short half-life (8.04 days), deposited ^{131}I does not remain on the ground long enough to lead to a cumulative annual exposure from groundshine. In most drinking water systems, any rain water contribution is usually significantly diluted or rapidly displaced. Moreover, most of the deposited radio-iodine had disappeared by May 2011 when agricultural activities in Canada were just beginning. Thus, the contributions from both the groundshine and ingestion pathways for ^{131}I have not been considered further.

5.2.2 *Cesium-134 and -137*

Although the concentrations of ^{137}Cs (half-life = 30.2 years) and ^{134}Cs (half-life = 2.07 years) were an order of magnitude lower than those of ^{131}I , their longer half-lives meant that all four exposure pathways including inhalation, cloudshine, groundshine, and ingestion, needed to be taken into consideration.

5.2.3 *Xenon-133*

Xenon is a noble gas found only in the gaseous state under normal environmental conditions. Thus it does not combine with airborne particles and deposit on the ground to contribute to long-term groundshine doses or be taken up through the food chain. Also xenon is

not deposited in the lungs or transported to other parts of the body, so it is not necessary to consider the inhalation pathway. The only relevant pathway for ^{133}Xe exposure is cloudshine.

5.3 Results of the Dose Calculations

This section provides a summary of the dose calculation results, however full details on the methodology used in the dose calculation and the resulting estimated doses at each measurement location are provided in Appendix 5. The estimated doses to representative adults, 10 year old children, and 1 year old infants at each of the measurement locations for the first year following the Fukushima accident are presented in Figure 21. The calculated doses are fairly consistent across Canada, with adults receiving the highest doses in all cases. The doses ranged from 3.8 – 4.4 μSv in the first year for adults, from 1.8 – 2.4 μSv in the first year for a 10 year old child, and from 1.1 – 1.9 μSv in the first year for a 1 year old infant. Ingestion was found to be the exposure pathway with the greatest contribution to total dose at all locations and for all age categories [Figure 22]. This is in agreement with the findings of the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR)[21], who reported that ingestion quickly became the dominant pathway with increasing distance from the Fukushima NPP. This also explains why the highest estimated doses were to adults, as their consumption rates are significantly higher than 10 year old children or 1 year old infants. For example, in the case of 1 year old infants, where the ingestion doses are the smallest, it can be seen that overall doses are also the smallest and the relative contributions from other exposure pathways are greater.

The maximum estimated dose in Canada in the first year following the Fukushima accident was 4.4 μSv. This additional exposure is extremely small when compared with normal environmental radiation exposures experienced in Canada of 2,000-3,000 μSv per year from natural background radiation.

[21] United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). *2013 Report to the General Assembly, with scientific annexes. Volume I: Report to the General Assembly, Scientific Annex A: Levels and effects of radiation exposure due to the nuclear accident after the 2011 great east-Japan earthquake and tsunami*. 2014.

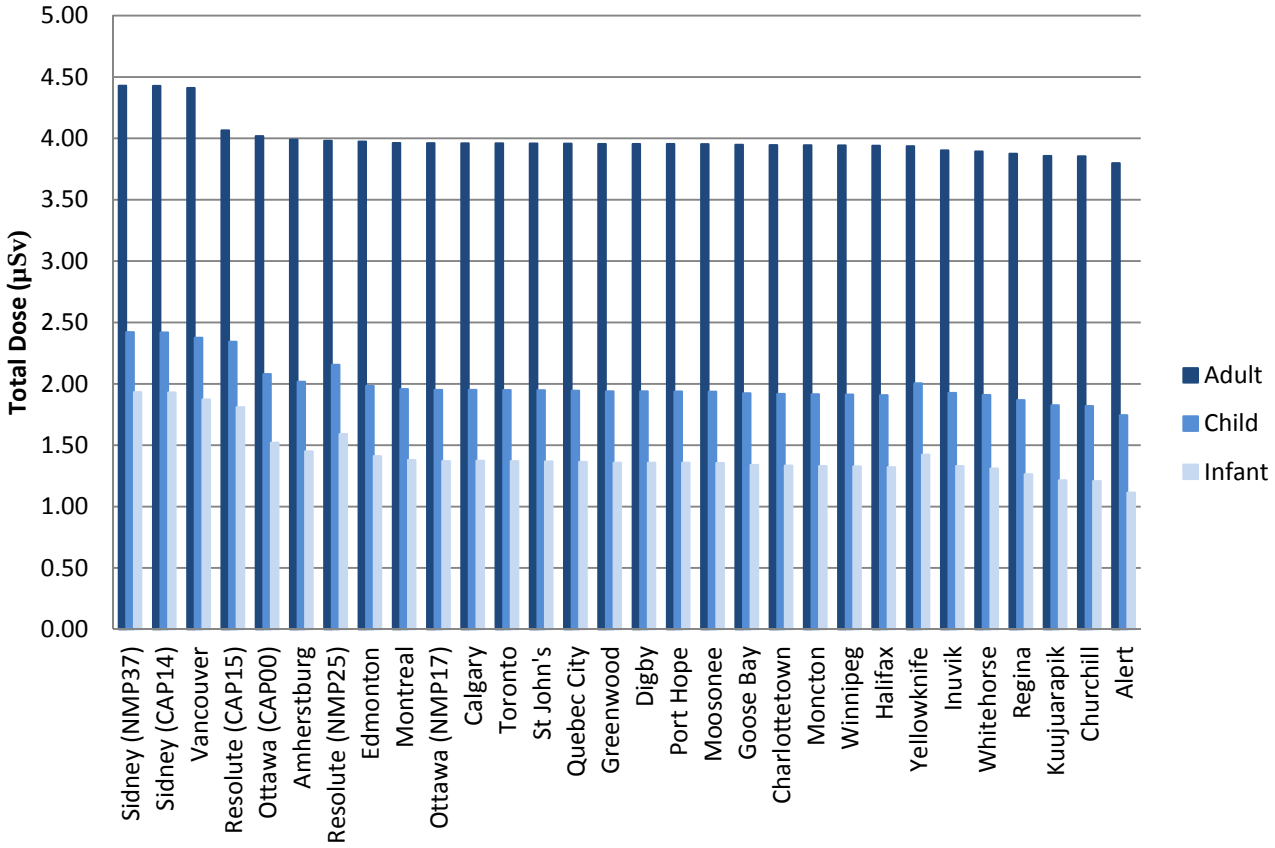

Figure 21: Estimated doses to an adult, a 10 year old child and a 1 year old infant, due to contaminants from the Fukushima Accident across Canada in the first year following the accident.

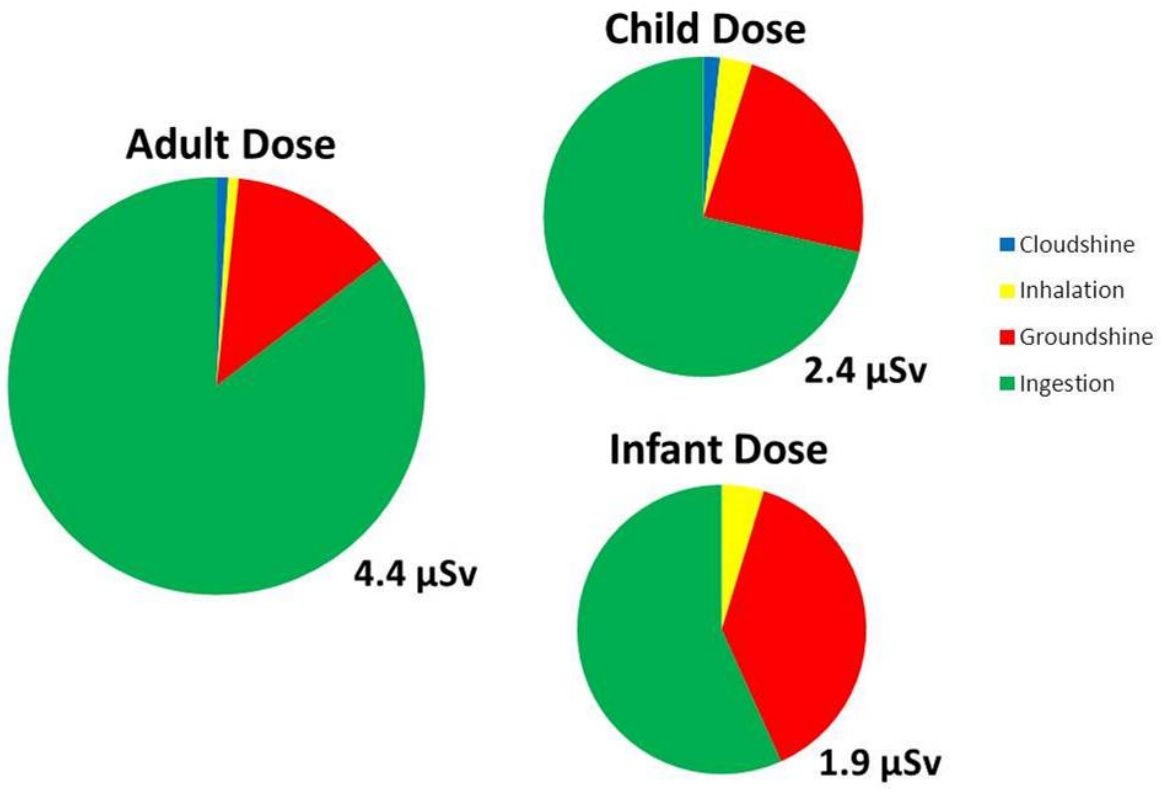

Figure 22: Adult, 10 year old child, and 1 year old infant doses by pathway at the Sidney BC CTBT measurement station in the first year following the Fukushima accident.

5.4 Health Impacts

The estimated doses in Canada in the first year following the Fukushima accident are extremely low and far less than the annual exposure to natural background radiation of 2,000-3,000 µSv. There are no health impacts related to this incremental dose.

6. Conclusions

Health Canada's RPB has routinely monitored radiation levels in the environment, beginning in 1959. This includes operation of the CRMN, the CTBTO IMS stations in Canada, and the FPS. During the Fukushima response, very little additional monitoring, enhanced sampling, or change of normal field routine was needed. Some enhancements to operations that did occur included: immediate transport of CRMN samples to headquarters in Ottawa with additional resources to ensure prompt measurement and analysis; direct gamma ray spectroscopy of precipitation samples; daily analysis of the global IMS data set; deployment of two FPS

stations to the Canadian embassy in Tokyo; deployment of additional FPS detectors to British Columbia and Yukon to allay local public concerns; and support to the CFIA and the CBSA in the analysis of material they collected.

Monitoring results showed that the radioactive contaminants from Fukushima first arrived at several locations across Canada between 17 March 2011 and 23 March 2011. Measurements of external radiation showed no significant change in exposure resulting from these contaminants compared to other months or years. However, RPB's monitoring networks are capable of detecting even minute changes in individual radionuclide concentrations in air. Arrival times of ^{131}I, ^{134}Cs and ^{137}Cs measured at several stations across Canada were similar as was ^{133}Xe at the 4 locations where it was measured. The most abundant radionuclide detected at Canadian monitoring sites was ^{133}Xe gas, observed at 4 locations. ^{131}I in aerosols followed with concentrations slightly higher at two northern locations than elsewhere in Canada. ^{134}Cs and ^{137}Cs were also detected at nearly every Canadian monitoring site, however at concentrations an order of magnitude lower than ^{131}I. By mid-May, the ^{131}I had disappeared due to its short half-life of approximately 8 days, while the ^{134}Cs and ^{137}Cs concentrations also decreased to non-detectable levels as a result of wet-deposition and dry deposition from the atmosphere.

Throughout the Fukushima response, the RPB worked in close collaboration with atmospheric modellers at the CCMEP of Environment Canada. These modelling activities provided predictions of when and where radioactivity would arrive in Canada. The models were also run backwards using data from the global CTBTO IMS and Canadian sampling sites to estimate the sample sensitivity to the Fukushima site and the actual amount of radioactive material released by the accident. Finally, long term models were validated by comparison to surveillance network data and used to estimate radionuclide concentrations in air and radionuclide deposition where no monitoring data was available. The results of the modelling showed that the highest air concentrations occurred over the Canadian Arctic and southern Ontario and Quebec, not Vancouver and Vancouver Island as was commonly assumed. However, Vancouver and Vancouver Island did receive higher deposition levels than other areas of Canada, largely due to higher precipitation rates at the time of the passage of the contaminated air masses.

The maximum dose to an individual resulting from exposure to the Fukushima contaminants in Canada was calculated, taking into account the four major pathways of

exposure: cloudshine, groundshine, inhalation and ingestion. The highest dose resulting from the Fukushima accident was conservatively estimated to be 4.4 μSv in the first year following the accident. This dose is extremely small compared to the normal background radiation dose of 2,000 to 3,000 μSv per year. There are no health impacts related to this incremental dose.

APPENDIX 1. Description of a box and whisker plot of data

A box and whisker plot is a convenient method for providing a detailed description of a data set in a graphical manner. A diagram of a box and whisker plot can be seen in Figure A1.1.

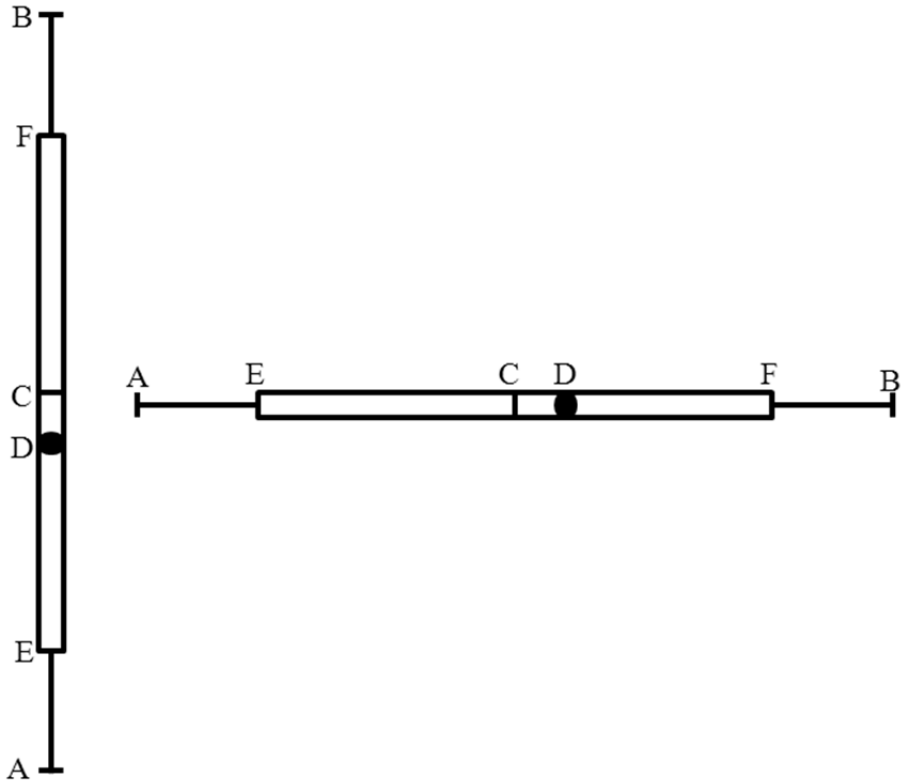

Figure A1.1 Diagram of a box and whisker plot, where: (A) is the minimum; (B) is the maximum; (C) is the median; (D) is the average; and (E) to (F) is the box range.

The components of a box and whisker plot are as follows:

- **Minimum:** Smallest value among the measurements.
- **Maximum:** Largest value among the measurements.
- **Median:** Measurement for which half of the other measurements are higher and the other half lower.
- **Average:** The sum of all the measurements divided by the total number of measurements.
- **Box Range:** The middle half of the measurements with the quarter of the measurements below the Median (E to C) and the quarter of the measurements above the Median (C to F).

APPENDIX 2. Fixed Point detectors on Vancouver Island and in Vancouver: Total external dose and dose due to ^{133}Xe

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-15 17:00	0.00	9.5	0.01	15.2	0.01	13.5	0.00	10.7	-0.01	14.9	-0.02	17.5
2011-03-15 17:15	0.00	9.4	-0.01	15.2	0.00	13.7	0.01	10.7	0.00	15.5	0.00	17.5
2011-03-15 17:30	0.01	9.3	0.00	14.9	-0.01	13.8	-0.01	10.8	0.00	15.3	0.00	17.2
2011-03-15 17:45	0.00	9.3	0.00	15.1	-0.01	13.6	-0.01	10.7	0.00	15.3	-0.01	17.2
2011-03-15 18:00	0.00	9.4	-0.02	15.2	0.00	13.8	0.00	10.9	-0.01	15.7	-0.01	17.3
2011-03-15 18:15	0.01	9.5	0.00	15.2	0.01	13.6	0.02	10.8	-0.01	15.7	0.02	17.5
2011-03-15 18:30	-0.01	9.5	0.00	15.0	-0.01	13.7	-0.01	10.6	0.02	16.1	0.00	17.5
2011-03-15 18:45	-0.01	9.5	-0.03	15.1	0.01	13.6	0.01	10.5	-0.01	16.7	-0.03	17.7
2011-03-15 19:00	0.00	9.4	0.01	15.1	-0.01	13.7	-0.01	10.5	-0.01	17.0	-0.01	17.8
2011-03-15 19:15	0.00	9.3	0.01	15.3	0.01	13.6	0.00	10.6	0.01	16.7	-0.02	17.5
2011-03-15 19:30	-0.01	9.3	0.00	15.0	-0.01	13.5	0.01	10.7	0.03	16.5	0.00	17.4
2011-03-15 19:45	0.00	9.4	0.00	15.0	0.03	13.5	0.00	10.7	0.00	16.6	-0.01	17.2
2011-03-15 20:00	0.01	9.6	-0.01	15.2	0.00	13.6	-0.01	11.1	0.01	16.5	-0.01	17.5
2011-03-15 20:15	0.01	11.0	0.00	15.6	-0.01	14.6	0.00	12.1	0.02	16.4	0.00	17.4
2011-03-15 20:30	0.03	11.8	0.02	17.7	0.03	15.1	0.01	12.2	0.00	16.2	-0.03	18.4
2011-03-15 20:45	0.02	11.5	0.02	18.9	-0.01	14.8	0.00	11.8	0.01	15.5	-0.01	18.0
2011-03-15 21:00	0.03	11.9	0.02	18.9	0.00	14.9	0.00	11.9	-0.01	15.1	-0.01	18.3
2011-03-15 21:15	0.01	11.4	0.03	18.3	0.01	14.3	-0.02	11.7	0.00	15.1	0.00	18.9
2011-03-15 21:30	0.01	10.9	0.01	17.8	0.01	14.0	-0.01	11.2	0.01	15.2	-0.01	19.5
2011-03-15 21:45	0.01	10.7	0.01	17.1	-0.01	14.1	-0.01	11.6	0.01	15.3	0.00	19.5
2011-03-15 22:00	-0.01	11.0	0.00	16.4	0.01	14.1	0.00	11.6	0.01	15.8	-0.01	19.5
2011-03-15 22:15	0.00	11.0	0.00	16.3	0.00	14.5	0.00	11.6	-0.02	15.2	-0.02	19.1
2011-03-15 22:30	0.01	10.9	0.00	16.6	0.00	14.5	0.02	11.6	0.00	14.7	0.00	18.5
2011-03-15 22:45	0.01	10.7	-0.02	16.1	0.00	14.3	0.01	11.6	0.00	14.7	0.00	18.7
2011-03-15 23:00	0.02	10.4	0.00	16.0	0.01	14.5	0.01	11.3	0.00	14.3	-0.01	19.5
2011-03-15 23:15	0.02	10.0	-0.01	15.8	0.01	13.8	-0.02	11.0	0.00	14.1	0.00	20.3
2011-03-15 23:30	-0.01	9.6	0.00	15.6	-0.01	13.9	0.00	11.0	0.00	14.0	-0.02	19.8
2011-03-15 23:45	-0.01	9.4	-0.02	15.3	0.01	13.7	0.00	10.8	-0.02	13.8	-0.02	19.7
2011-03-16 0:00	0.00	9.4	0.00	15.3	-0.01	13.7	0.02	10.7	0.00	13.9	-0.01	19.3
2011-03-16 0:15	-0.01	9.4	0.00	14.9	0.00	13.8	0.00	10.6	0.01	13.9	0.01	18.8
2011-03-16 0:30	0.01	9.1	0.00	14.7	0.02	13.8	-0.01	10.7	0.00	13.9	0.00	18.3
2011-03-16 0:45	-0.02	9.2	0.00	14.8	0.00	13.6	-0.01	10.5	-0.01	13.8	0.01	17.8
2011-03-16 1:00	0.00	9.0	-0.02	15.0	0.01	13.7	0.01	10.5	0.00	13.8	-0.02	17.5
2011-03-16 1:15	0.00	8.9	0.03	15.1	0.02	13.5	-0.01	10.4	0.02	13.8	0.00	17.8
2011-03-16 1:30	0.00	9.1	0.00	14.7	0.00	13.7	0.01	10.6	0.00	13.7	0.00	17.8
2011-03-16 1:45	0.00	9.1	-0.01	14.8	-0.01	13.8	0.00	10.7	-0.01	13.7	-0.02	17.4
2011-03-16 2:00	-0.01	9.8	0.00	15.0	0.01	14.2	0.01	10.7	-0.01	13.8	0.02	17.3
2011-03-16 2:15	0.00	9.8	-0.02	14.9	0.02	14.2	0.00	10.9	0.00	13.8	0.01	17.3
2011-03-16 2:30	0.00	10.1	0.00	15.2	0.01	14.1	-0.01	11.2	0.00	14.0	0.00	17.6
2011-03-16 2:45	0.01	10.8	-0.02	15.8	0.01	14.8	0.00	11.3	0.00	14.5	0.00	18.3
2011-03-16 3:00	0.01	10.6	0.01	15.8	0.01	14.5	0.01	11.1	-0.01	14.5	-0.02	18.7
2011-03-16 3:15	0.00	10.1	0.00	15.9	-0.02	14.2	0.01	11.1	0.01	14.2	-0.01	19.1
2011-03-16 3:30	-0.01	9.9	0.00	15.9	0.00	14.0	0.00	10.7	0.00	14.1	-0.01	18.6
2011-03-16 3:45	-0.01	9.7	0.00	15.6	-0.01	13.9	0.01	10.8	-0.01	14.0	-0.02	19.2
2011-03-16 4:00	0.01	9.7	-0.01	15.2	0.01	13.9	-0.01	10.5	0.01	14.0	0.00	19.2
2011-03-16 4:15	-0.01	9.2	0.00	14.9	0.00	13.7	-0.01	10.4	-0.02	13.9	0.01	18.9
2011-03-16 4:30	0.00	9.2	-0.03	15.0	0.01	13.4	0.00	10.2	0.00	14.1	0.00	18.4
2011-03-16 4:45	0.01	9.1	0.01	14.8	0.01	13.4	0.01	10.7	-0.01	13.7	-0.03	18.2
2011-03-16 5:00	0.00	9.0	0.00	14.7	0.00	13.6	-0.01	10.6	0.01	14.1	-0.01	17.7
2011-03-16 5:15	-0.01	8.9	0.01	15.2	0.02	13.5	0.01	10.4	-0.01	13.8	-0.03	17.7
2011-03-16 5:30	0.00	9.0	0.02	15.4	0.01	13.6	0.01	10.6	0.01	13.8	-0.01	17.5
2011-03-16 5:45	0.00	9.2	0.00	15.6	0.01	13.8	0.00	11.0	0.00	13.7	0.00	17.3
2011-03-16 6:00	0.02	9.3	-0.01	15.6	0.01	14.2	0.00	10.8	-0.02	14.0	0.01	17.1
2011-03-16 6:15	-0.01	9.1	0.00	16.1	-0.01	13.9	-0.01	10.8	0.01	14.4	-0.01	17.0
2011-03-16 6:30	-0.01	9.3	0.01	16.3	0.01	14.1	0.01	11.0	0.02	15.0	-0.01	17.0
2011-03-16 6:45	-0.01	9.4	0.02	16.4	0.00	14.1	0.00	10.9	0.01	15.0	-0.01	16.9
2011-03-16 7:00	0.00	9.4	-0.01	16.3	-0.01	14.0	-0.01	11.0	0.02	14.9	0.01	17.1
2011-03-16 7:15	0.01	9.6	0.01	16.2	0.00	13.9	-0.01	10.8	0.01	14.6	0.00	17.1
2011-03-16 7:30	-0.02	9.4	-0.02	15.8	0.01	14.1	0.01	10.9	0.01	14.9	0.00	17.1
2011-03-16 7:45	-0.01	9.3	0.00	15.8	-0.01	14.0	-0.01	10.6	0.01	14.6	0.00	17.1
2011-03-16 8:00	-0.01	9.3	0.01	15.4	0.00	13.6	0.00	10.8	0.00	14.9	0.00	17.2
2011-03-16 8:15	0.00	9.2	0.00	15.5	0.00	13.8	0.00	11.0	0.00	14.8	-0.01	17.1
2011-03-16 8:30	0.00	9.2	0.00	15.4	0.00	13.8	-0.02	11.2	-0.01	14.7	0.00	16.9
2011-03-16 8:45	-0.01	9.9	-0.03	15.2	-0.01	14.1	0.00	11.6	0.01	14.5	0.01	17.3
2011-03-16 9:00	0.01	10.2	0.00	15.4	-0.01	14.3	0.01	11.8	-0.02	14.5	0.00	17.3
2011-03-16 9:15	0.00	10.3	-0.01	15.1	0.00	14.5	0.01	12.1	-0.01	14.4	-0.01	17.4
2011-03-16 9:30	-0.01	10.3	0.01	15.0	-0.01	14.5	0.01	12.3	0.01	14.4	-0.01	17.5
2011-03-16 9:45	0.00	10.4	-0.01	14.9	0.00	14.4	0.00	12.7	0.00	14.4	0.01	17.2

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-16 10:00	0.03	10.4	0.01	15.0	0.01	14.5	0.02	12.2	0.03	14.4	0.01	17.1
2011-03-16 10:15	0.00	10.2	0.01	14.9	0.00	14.3	-0.01	11.7	0.00	14.4	0.00	17.0
2011-03-16 10:30	0.01	10.0	0.00	15.3	0.01	14.2	0.00	11.8	0.00	14.0	0.01	17.1
2011-03-16 10:45	0.02	10.1	0.02	16.5	-0.01	14.2	0.02	12.3	0.00	14.2	0.01	17.2
2011-03-16 11:00	0.00	10.4	0.01	16.3	0.03	14.6	0.03	12.6	0.00	14.0	0.00	17.1
2011-03-16 11:15	0.02	10.8	0.01	16.1	0.00	14.7	-0.01	13.0	-0.01	13.9	0.00	17.0
2011-03-16 11:30	-0.01	10.8	0.00	15.8	0.00	14.7	0.01	13.3	0.01	14.0	-0.02	17.2
2011-03-16 11:45	0.00	11.0	-0.01	15.5	0.01	14.8	-0.01	13.7	-0.01	14.1	0.00	17.2
2011-03-16 12:00	0.02	11.1	0.00	15.4	0.00	14.5	0.01	13.8	0.03	14.2	-0.02	17.1
2011-03-16 12:15	0.00	11.5	0.00	15.4	-0.01	14.5	0.01	14.0	0.00	13.9	0.00	17.0
2011-03-16 12:30	0.00	11.6	0.00	15.2	0.01	14.3	0.01	13.9	-0.01	14.1	0.01	17.1
2011-03-16 12:45	0.01	11.7	0.02	15.0	-0.01	14.2	0.01	13.8	0.00	14.1	0.00	17.2
2011-03-16 13:00	0.00	11.1	-0.01	14.9	0.02	14.1	0.01	13.4	0.01	13.8	0.01	17.1
2011-03-16 13:15	0.00	10.8	0.02	15.0	0.01	13.8	0.03	13.5	0.00	14.0	0.00	17.3
2011-03-16 13:30	0.01	10.4	-0.01	14.9	-0.01	14.0	0.02	13.6	0.00	13.9	0.00	17.3
2011-03-16 13:45	-0.01	10.7	0.01	15.0	0.01	14.2	0.01	13.9	0.00	13.7	-0.03	17.4
2011-03-16 14:00	0.00	10.5	0.00	14.7	0.00	14.3	0.01	13.1	0.01	13.9	0.01	17.0
2011-03-16 14:15	0.01	10.2	0.00	14.8	-0.01	14.2	0.02	12.7	0.00	14.0	0.00	17.0
2011-03-16 14:30	0.01	9.9	0.00	14.9	-0.02	13.9	0.01	12.3	0.02	14.0	0.01	17.2
2011-03-16 14:45	-0.01	9.6	-0.01	14.7	0.00	13.9	-0.02	12.1	-0.01	13.8	-0.01	17.3
2011-03-16 15:00	0.00	9.6	-0.01	14.6	0.00	13.6	0.00	11.5	0.01	14.0	-0.06	18.6
2011-03-16 15:15	0.01	9.3	0.00	14.7	0.00	13.5	-0.01	11.5	-0.01	13.8	-0.01	17.2
2011-03-16 15:30	0.00	9.3	0.01	14.8	0.00	13.4	0.01	11.4	-0.01	13.8	-0.02	17.5
2011-03-16 15:45	0.00	9.1	-0.01	14.6	0.01	13.3	0.01	11.1	-0.02	13.7	-0.01	17.0
2011-03-16 16:00	0.00	9.0	-0.01	14.6	-0.02	13.2	-0.01	11.0	-0.01	13.9	0.01	17.3
2011-03-16 16:15	0.02	9.0	0.00	14.6	0.01	13.4	0.01	10.9	0.00	13.9	0.01	17.4
2011-03-16 16:30	-0.01	8.9	0.01	14.7	0.01	13.2	-0.01	10.7	0.01	14.1	-0.01	17.0
2011-03-16 16:45	-0.01	9.0	-0.03	14.7	0.00	13.3	0.00	10.7	0.00	13.7	-0.01	16.9
2011-03-16 17:00	-0.02	8.9	-0.01	14.5	0.01	13.5	0.00	10.5	-0.01	13.9	-0.01	17.2
2011-03-16 17:15	0.01	9.0	0.01	14.9	-0.01	13.3	0.00	10.5	-0.01	13.9	-0.01	17.1
2011-03-16 17:30	0.00	9.2	-0.01	14.8	0.00	13.4	0.00	10.5	-0.01	13.8	-0.02	17.1
2011-03-16 17:45	-0.01	9.0	0.00	14.6	0.01	13.4	0.01	10.3	-0.01	13.8	0.01	17.1
2011-03-16 18:00	0.01	9.1	-0.01	14.9	0.01	13.3	0.00	10.7	-0.03	13.7	-0.14	20.5
2011-03-16 18:15	0.00	9.2	0.00	14.9	0.01	13.3	0.01	10.8	-0.01	14.1	-0.02	17.5
2011-03-16 18:30	0.01	9.2	0.00	14.9	0.00	13.3	0.00	10.8	0.00	13.9	-0.34	26.2
2011-03-16 18:45	0.00	9.4	0.00	14.9	-0.01	13.4	0.00	10.8	-0.01	13.9	-0.05	18.6
2011-03-16 19:00	0.01	9.0	0.00	14.8	0.00	13.4	0.00	10.5	0.00	14.0	-0.01	17.5
2011-03-16 19:15	-0.01	9.0	-0.01	14.7	-0.01	13.4	-0.01	10.6	-0.01	14.1	-0.01	17.2
2011-03-16 19:30	0.01	9.1	-0.02	14.7	-0.01	13.2	-0.01	10.4	0.00	14.0	-0.01	17.0
2011-03-16 19:45	-0.01	8.9	0.02	14.7	0.00	13.1	0.00	10.5	-0.02	13.9	0.00	17.2
2011-03-16 20:00	0.01	9.0	0.00	14.9	-0.03	13.2	0.02	10.5	0.00	13.9	-0.07	19.5
2011-03-16 20:15	0.00	9.0	-0.01	14.9	0.00	13.4	-0.02	10.1	-0.01	13.9	-0.03	17.6
2011-03-16 20:30	0.01	9.0	0.01	14.8	0.00	13.3	-0.01	10.1	-0.03	14.0	0.00	17.2
2011-03-16 20:45	0.01	9.1	0.00	14.7	0.00	13.2	0.02	10.4	-0.03	14.0	0.01	17.3
2011-03-16 21:00	0.00	9.0	-0.01	14.8	-0.01	13.4	0.01	10.3	-0.02	14.0	0.01	17.2
2011-03-16 21:15	-0.01	9.1	0.00	14.9	0.01	13.3	0.01	10.3	0.00	14.3	-0.01	17.1
2011-03-16 21:30	-0.01	9.0	-0.01	14.6	0.02	13.2	0.01	10.4	0.02	14.2	-0.02	17.1
2011-03-16 21:45	0.00	9.0	-0.02	15.0	-0.01	13.2	0.00	10.8	0.00	14.2	0.01	17.3
2011-03-16 22:00	-0.01	9.0	-0.01	14.9	0.00	13.3	0.01	10.6	-0.01	14.2	0.01	17.1
2011-03-16 22:15	0.00	9.1	0.01	14.9	0.00	13.2	0.03	11.0	0.01	14.1	-0.01	17.1
2011-03-16 22:30	0.00	9.0	0.00	14.6	0.00	13.1	0.01	11.1	-0.01	14.2	-0.01	17.1
2011-03-16 22:45	0.00	9.0	-0.01	14.7	0.00	13.1	0.00	11.0	-0.03	14.0	0.00	17.2
2011-03-16 23:00	-0.01	8.9	-0.02	14.9	0.01	13.2	0.01	11.0	0.00	14.0	-0.01	17.0
2011-03-16 23:15	-0.01	8.9	-0.01	14.7	-0.01	13.2	-0.01	10.8	-0.03	13.8	0.01	17.1
2011-03-16 23:30	0.00	9.0	0.00	14.9	0.00	13.3	0.01	11.0	-0.02	13.8	0.00	17.1
2011-03-16 23:45	-0.02	8.8	0.00	14.8	0.00	13.1	0.00	11.4	-0.02	14.0	0.02	17.2
2011-03-17 0:00	0.00	9.4	0.00	14.8	0.01	13.5	0.02	11.3	-0.01	13.8	0.01	17.1
2011-03-17 0:15	0.01	9.5	0.00	14.7	0.00	13.5	0.02	11.1	-0.01	14.1	-0.01	17.1
2011-03-17 0:30	0.01	9.3	0.00	14.8	0.01	13.5	0.00	10.9	0.00	14.2	0.01	17.0
2011-03-17 0:45	0.00	9.4	0.00	14.9	-0.01	13.4	0.01	10.7	0.00	14.2	-0.02	17.2
2011-03-17 1:00	0.00	9.3	0.00	14.7	0.00	13.4	0.01	10.8	-0.02	14.1	0.01	17.1
2011-03-17 1:15	0.01	9.2	0.00	14.6	0.00	13.4	0.01	10.6	0.00	13.9	0.00	17.0
2011-03-17 1:30	0.00	9.1	-0.02	14.8	-0.01	13.3	0.00	10.5	0.00	14.1	-0.01	17.1
2011-03-17 1:45	-0.01	9.0	0.01	14.8	0.00	13.4	0.00	10.5	0.00	13.8	-0.02	17.0
2011-03-17 2:00	0.01	9.1	-0.02	14.6	0.00	13.4	0.01	10.4	0.00	13.9	-0.01	17.2
2011-03-17 2:15	0.01	8.8	0.00	14.8	0.00	13.3	0.01	10.4	0.00	13.9	-0.01	16.9
2011-03-17 2:30	-0.01	8.9	0.00	14.8	0.01	13.4	0.00	10.2	0.00	13.8	-0.01	17.4
2011-03-17 2:45	0.01	8.9	0.01	14.7	0.02	13.3	0.00	10.7	-0.02	13.9	0.01	17.1

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-17 3:00	0.00	9.0	-0.01	14.7	0.01	13.2	0.00	10.7	-0.01	13.9	0.00	17.2
2011-03-17 3:15	-0.01	8.8	0.01	14.9	0.00	13.4	-0.03	10.5	0.01	14.0	0.00	17.5
2011-03-17 3:30	0.00	9.0	0.00	14.8	0.00	13.4	-0.01	10.6	0.00	14.0	-0.05	18.1
2011-03-17 3:45	0.00	9.0	-0.01	14.8	-0.01	13.4	0.00	10.7	-0.01	14.0	-0.02	17.5
2011-03-17 4:00	0.00	8.9	-0.01	14.7	0.00	13.5	-0.01	10.5	-0.02	13.9	-0.01	17.3
2011-03-17 4:15	0.00	9.0	0.00	14.6	0.00	13.5	-0.01	10.4	0.03	13.9	0.00	16.9
2011-03-17 4:30	0.00	9.1	0.00	14.7	0.00	13.4	0.00	10.5	-0.01	13.9	0.00	17.0
2011-03-17 4:45	-0.01	9.0	0.01	14.9	0.00	13.3	-0.01	10.3	0.00	14.0	0.00	16.8
2011-03-17 5:00	-0.01	9.0	-0.01	14.8	0.00	13.4	0.00	10.5	0.00	13.8	0.01	17.0
2011-03-17 5:15	0.00	8.9	-0.01	14.8	-0.01	13.3	0.00	10.4	-0.01	13.8	0.00	17.2
2011-03-17 5:30	0.01	9.0	0.01	14.8	0.00	13.2	0.01	10.3	0.02	14.0	-0.01	17.0
2011-03-17 5:45	-0.01	9.1	-0.02	14.8	0.00	13.4	-0.01	10.4	0.00	14.1	0.01	16.9
2011-03-17 6:00	0.00	9.0	0.01	15.0	0.01	13.5	0.00	10.2	0.00	14.0	0.01	17.4
2011-03-17 6:15	-0.02	8.9	0.00	14.8	-0.02	13.5	0.01	10.2	0.00	14.0	0.00	17.0
2011-03-17 6:30	-0.01	9.1	0.00	14.9	-0.01	13.5	-0.01	10.4	-0.02	13.8	-0.01	16.9
2011-03-17 6:45	0.00	9.0	-0.01	14.8	0.00	13.6	0.00	10.3	-0.01	13.9	0.00	17.0
2011-03-17 7:00	-0.01	9.0	-0.01	14.6	-0.01	13.4	-0.01	10.3	-0.01	13.9	0.01	17.0
2011-03-17 7:15	0.00	8.9	0.00	14.9	-0.01	13.2	0.01	10.4	0.00	13.7	0.02	17.1
2011-03-17 7:30	0.00	9.0	0.01	14.8	-0.01	13.2	-0.01	10.2	0.00	13.9	0.00	17.0
2011-03-17 7:45	0.00	9.0	-0.02	14.9	0.01	13.5	0.02	10.5	0.00	13.9	0.00	17.0
2011-03-17 8:00	0.00	9.0	0.01	14.8	-0.02	13.4	-0.01	10.5	0.00	13.8	0.00	17.0
2011-03-17 8:15	-0.01	9.1	-0.01	14.8	0.01	13.5	0.01	10.5	-0.01	13.6	-0.01	17.1
2011-03-17 8:30	0.01	8.9	-0.02	15.0	-0.01	13.5	0.00	10.5	-0.01	13.6	0.00	17.3
2011-03-17 8:45	0.00	8.9	0.01	14.9	-0.01	13.6	0.00	10.3	0.00	13.8	-0.01	17.0
2011-03-17 9:00	0.01	9.1	0.00	14.9	0.01	13.5	-0.01	10.4	0.00	13.9	0.01	17.1
2011-03-17 9:15	0.00	9.2	-0.01	14.8	0.00	13.5	0.01	10.4	-0.01	13.8	-0.02	17.1
2011-03-17 9:30	0.00	9.0	0.00	14.8	-0.01	13.5	0.01	10.4	0.00	14.1	0.01	17.2
2011-03-17 9:45	-0.01	8.9	0.00	15.0	0.00	13.5	0.00	10.4	0.00	13.7	0.02	17.1
2011-03-17 10:00	0.00	9.1	0.01	14.9	0.00	13.5	0.01	10.4	0.00	14.0	0.01	17.1
2011-03-17 10:15	0.00	9.1	-0.01	14.8	-0.01	13.6	-0.02	10.3	-0.01	13.9	-0.01	16.9
2011-03-17 10:30	0.01	9.0	0.01	15.1	-0.02	13.5	-0.01	10.3	0.00	14.1	0.01	17.1
2011-03-17 10:45	0.00	9.1	0.00	15.0	-0.01	13.5	0.01	10.4	-0.01	13.9	-0.01	17.0
2011-03-17 11:00	0.00	9.0	0.00	14.6	0.01	13.5	0.01	10.4	-0.01	13.9	0.01	17.2
2011-03-17 11:15	0.00	9.0	0.00	14.9	-0.02	13.5	-0.01	10.4	0.01	14.0	0.02	17.0
2011-03-17 11:30	0.02	8.9	-0.01	14.7	0.00	13.6	0.00	10.2	0.00	14.0	0.00	17.0
2011-03-17 11:45	0.00	9.0	-0.01	14.9	0.01	13.4	0.00	10.4	0.00	14.0	-0.01	16.8
2011-03-17 12:00	0.02	9.0	0.02	15.2	0.01	13.4	-0.02	10.2	0.00	14.0	0.00	17.0
2011-03-17 12:15	-0.01	9.0	0.01	15.6	0.00	13.4	0.00	10.4	0.00	14.0	-0.01	17.0
2011-03-17 12:30	-0.01	8.9	0.03	17.6	0.01	13.5	-0.02	10.4	-0.01	14.1	-0.01	17.1
2011-03-17 12:45	-0.01	9.0	0.01	18.3	-0.01	13.6	0.00	10.2	0.00	13.9	0.00	17.1
2011-03-17 13:00	-0.01	9.1	0.01	17.7	0.01	13.4	0.01	10.4	0.00	13.9	-0.01	17.1
2011-03-17 13:15	0.00	9.2	0.02	17.1	0.00	13.5	-0.01	10.2	0.00	13.8	0.00	17.0
2011-03-17 13:30	0.00	9.0	0.00	16.7	0.00	13.6	0.00	10.4	0.00	13.7	0.01	17.2
2011-03-17 13:45	0.00	8.9	0.00	16.1	-0.02	13.4	0.02	10.5	0.01	13.9	0.00	17.1
2011-03-17 14:00	0.00	9.0	-0.01	15.8	0.01	13.4	0.00	10.4	-0.01	14.2	0.00	17.0
2011-03-17 14:15	-0.01	9.1	0.01	15.6	0.01	13.4	0.01	10.5	-0.01	14.2	0.00	17.2
2011-03-17 14:30	0.00	9.0	0.01	15.3	0.00	13.5	-0.02	10.2	-0.02	14.0	0.01	17.4
2011-03-17 14:45	0.00	8.9			0.01	13.5	0.00	10.3	0.00	13.9	-0.01	17.1
2011-03-17 15:00	-0.01	9.1	0.00	15.0	0.00	13.5	0.01	10.4	-0.01	14.3	-0.01	17.2
2011-03-17 15:15	-0.01	8.9	-0.01	14.7	0.01	13.3	0.00	10.5	-0.02	14.0	0.00	17.1
2011-03-17 15:30	0.00	9.0	0.03	14.8	0.00	13.4	-0.01	10.4	0.00	14.0	-0.01	17.1
2011-03-17 15:45	0.01	9.3	0.00	14.8	-0.01	13.4	-0.01	10.3	0.00	14.0	0.01	17.3
2011-03-17 16:00	-0.01	9.0	-0.01	14.7	0.00	13.5	0.01	10.3	0.00	14.2	-0.01	17.0
2011-03-17 16:15	-0.01	9.3	0.00	14.8	0.01	13.2	0.00	10.4	-0.02	14.1	0.00	17.1
2011-03-17 16:30	-0.01	9.3	0.00	14.9	-0.01	13.4	0.00	10.3	-0.01	14.2	-0.01	17.1
2011-03-17 16:45	0.00	9.3	0.00	14.8	-0.01	13.4	0.01	10.4	0.01	13.9	0.02	17.2
2011-03-17 17:00	0.00	9.4	-0.01	14.8	-0.02	13.4	-0.01	10.4	-0.01	14.3	-0.01	17.1
2011-03-17 17:15	0.02	9.2	-0.02	14.9	-0.01	13.4	-0.01	10.4	-0.02	14.3	-0.01	17.0
2011-03-17 17:30	0.00	9.4	0.00	14.7	0.00	13.6	0.00	10.3	-0.02	14.4	-0.01	17.1
2011-03-17 17:45	-0.01	9.2	-0.02	14.9	0.00	13.6	0.01	10.4	0.00	14.2	0.00	17.1
2011-03-17 18:00	-0.01	9.3	-0.01	14.9	-0.02	13.4	-0.01	10.4	-0.01	14.4	0.00	17.1
2011-03-17 18:15	0.00	9.4	0.00	15.0	-0.01	13.6	0.00	10.5	0.00	14.5	-0.01	17.2
2011-03-17 18:30	-0.01	9.3	-0.01	14.9	0.00	13.6	-0.01	10.5	-0.02	14.2	0.01	17.6
2011-03-17 18:45	-0.01	9.3	-0.01	14.9	-0.01	13.5	-0.02	10.3	-0.02	14.4	0.00	17.9
2011-03-17 19:00	-0.02	9.4	0.00	15.0	0.01	13.4	0.01	10.4	-0.02	14.4	-0.02	17.5
2011-03-17 19:15	-0.01	9.1	-0.01	14.7	0.00	13.5	0.00	10.7	0.00	14.3	-0.01	17.4
2011-03-17 19:30	0.00	9.2	0.01	14.9	0.00	13.4	0.01	10.4	-0.04	14.1	-0.01	17.4
2011-03-17 19:45	0.01	9.1	0.01	14.8	-0.02	13.4	-0.01	10.6	0.00	14.2	0.02	17.1

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-17 20:00	0.00	9.1	-0.01	14.8	-0.02	13.5	0.00	10.5	0.01	14.3	0.02	17.3
2011-03-17 20:15	0.00	9.1	0.00	14.9	-0.01	13.3	0.01	10.6	-0.03	14.2	0.01	17.1
2011-03-17 20:30	0.00	9.4	-0.01	14.9	-0.01	13.4	0.00	10.5	0.00	14.5	0.02	17.2
2011-03-17 20:45	0.00	9.2	-0.02	14.9	0.00	13.5	-0.03	10.5	0.00	14.9	-0.02	17.2
2011-03-17 21:00	0.00	9.5	-0.01	15.0	0.00	13.6	-0.01	10.4	0.01	15.0	0.00	17.2
2011-03-17 21:15	0.01	9.4	-0.02	15.0	0.00	13.4	0.01	10.6	-0.01	15.2	0.00	17.2
2011-03-17 21:30	0.01	9.3	0.00	14.8	0.01	13.5	-0.02	10.6	-0.01	15.8	0.01	17.2
2011-03-17 21:45	0.00	9.3	-0.01	14.7	0.00	13.4	0.00	10.5	0.00	15.6	-0.01	17.2
2011-03-17 22:00	0.00	9.3	0.00	14.8	0.00	13.3	0.00	10.5	-0.01	15.3	0.01	17.4
2011-03-17 22:15	0.00	9.1	0.00	14.9	-0.01	13.6	-0.01	10.5	-0.02	14.8	0.01	17.2
2011-03-17 22:30	0.00	9.4	-0.01	14.8	0.02	13.3	-0.01	10.5	0.01	15.0	0.01	17.3
2011-03-17 22:45	0.00	9.2	0.00	14.8	0.01	13.3	0.01	10.5	0.00	14.8	0.00	17.3
2011-03-17 23:00	-0.01	9.3	0.00	14.8	0.01	13.2	0.01	10.5	0.01	14.3	-0.01	17.3
2011-03-17 23:15	0.00	9.1	-0.01	14.8	0.04	13.4	0.01	10.5	0.01	14.2	0.00	17.3
2011-03-17 23:30	0.01	9.3	-0.02	14.8	0.00	13.5	0.02	10.6	-0.01	14.1	-0.02	17.3
2011-03-17 23:45	0.02	9.1	0.00	15.0	-0.01	13.5	0.00	10.5	0.01	14.2	0.01	17.2
2011-03-18 0:00	0.01	9.2	0.00	15.1	0.01	13.5	0.02	10.7	0.01	14.1	0.01	17.3
2011-03-18 0:15	0.01	9.1	-0.01	14.8	0.01	13.7	0.01	10.5	0.01	14.2	-0.01	17.6
2011-03-18 0:30	0.01	9.1	0.02	14.9	0.02	13.6	0.00	10.5	-0.02	13.9	0.00	17.7
2011-03-18 0:45	0.04	9.3	0.00	15.2	0.00	13.7	0.00	10.5	0.00	14.1	0.00	17.5
2011-03-18 1:00	0.03	9.2	0.02	14.9	0.01	13.4	0.03	10.6	-0.01	14.2	-0.01	17.7
2011-03-18 1:15	0.04	9.4	0.01	15.0	0.01	13.5	0.03	10.6	-0.01	14.2	-0.02	17.4
2011-03-18 1:30	0.02	9.3	0.01	15.2	0.03	13.8	0.01	10.5	0.00	14.1	-0.01	17.4
2011-03-18 1:45	0.04	9.3	0.01	14.9	0.03	13.7	0.04	10.7	0.00	14.2	0.01	17.2
2011-03-18 2:00	0.03	9.2	-0.01	15.0	0.04	13.7	0.01	10.5	0.01	13.6	0.02	17.4
2011-03-18 2:15	0.03	9.4	0.01	14.9	0.03	13.9	0.01	10.5	0.01	13.8	0.00	17.3
2011-03-18 2:30	0.06	9.3	0.01	15.0	0.04	13.6	0.04	10.6	0.00	14.0	0.01	17.0
2011-03-18 2:45	0.04	9.2	0.01	15.1	0.03	13.6	0.02	10.5	-0.01	14.0	-0.01	17.3
2011-03-18 3:00	0.03	9.2	0.00	14.8	0.01	13.6	0.02	10.4	-0.01	14.1	0.00	17.2
2011-03-18 3:15	0.03	9.5	0.03	15.1	0.04	13.6	0.03	10.3	0.03	14.0	0.00	17.1
2011-03-18 3:30	0.05	9.4	0.01	15.1	0.01	13.7	0.04	10.5	0.01	13.9	0.02	17.1
2011-03-18 3:45	0.04	9.4	0.00	15.0	0.02	13.6	0.03	10.6	0.00	14.1	0.01	17.2
2011-03-18 4:00	0.01	9.2	0.01	15.0	0.02	13.7	0.03	10.5	0.00	13.9	-0.01	17.3
2011-03-18 4:15	0.02	9.3	0.01	15.0	0.02	14.0	0.05	10.5	0.00	14.0	-0.01	17.2
2011-03-18 4:30	0.03	9.2	0.00	15.1	0.02	13.6	0.02	10.7	-0.03	13.9	-0.01	17.1
2011-03-18 4:45	0.02	9.2	0.01	14.9	0.04	13.8	0.04	10.7	-0.01	14.0	-0.01	17.2
2011-03-18 5:00	0.03	9.2	0.00	14.9	0.03	13.5	0.02	10.7	0.01	13.8	-0.01	17.3
2011-03-18 5:15	0.02	9.4	0.01	14.8	0.04	13.7	0.03	10.6	0.00	13.9	0.01	17.4
2011-03-18 5:30	0.03	9.3	0.00	14.9	0.03	13.7	0.01	10.7	-0.02	14.0	0.00	17.3
2011-03-18 5:45	0.02	9.4	0.01	14.8	0.03	13.8	0.02	10.6	0.01	14.1	0.00	17.1
2011-03-18 6:00	0.04	9.4	0.01	15.1	0.02	13.6	0.04	10.5	-0.01	14.1	0.01	17.2
2011-03-18 6:15	0.03	9.3	0.02	15.2	0.03	13.6	0.04	10.7	0.00	14.0	-0.01	17.3
2011-03-18 6:30	0.02	9.5	0.02	15.1	0.04	13.7	0.02	10.6	0.01	14.0	-0.01	17.1
2011-03-18 6:45	0.04	9.4	0.01	15.0	0.02	13.7	0.04	10.7	0.00	14.2	0.01	17.3
2011-03-18 7:00	0.03	9.3	0.01	15.1	0.01	13.5	0.01	10.5	0.00	14.2	0.00	17.4
2011-03-18 7:15	0.02	9.2	0.03	15.0	0.00	13.7	0.05	10.6	0.01	14.3	-0.02	17.3
2011-03-18 7:30	0.02	9.3	0.00	15.2	0.01	13.8	0.03	10.6	-0.02	14.1	0.00	17.3
2011-03-18 7:45	0.00	9.3	0.00	15.0	-0.01	13.7	0.00	10.6	0.00	14.0	0.01	17.4
2011-03-18 8:00	-0.01	9.3	0.01	15.1	0.01	13.7	0.00	10.4	-0.02	13.8	0.00	17.2
2011-03-18 8:15	0.00	9.4	0.00	15.1	-0.01	13.8	0.00	10.6	0.01	14.1	0.02	17.3
2011-03-18 8:30	-0.01	9.4	0.00	15.1	0.01	13.9	-0.01	10.6	0.01	14.2	0.00	17.3
2011-03-18 8:45	0.00	9.4	0.00	15.3	0.00	13.6	-0.02	10.7	-0.01	14.0	-0.01	17.1
2011-03-18 9:00	0.00	9.4	0.01	15.1	0.01	14.0	0.01	10.7	-0.01	14.1	0.01	17.3
2011-03-18 9:15	0.01	9.3	-0.01	15.1	-0.01	13.9	0.00	10.7	0.01	14.2	0.03	17.3
2011-03-18 9:30	0.01	9.4	-0.01	15.2	-0.02	13.8	0.01	10.8	0.01	14.0	0.00	17.4
2011-03-18 9:45	0.00	9.4	0.02	15.2	0.00	13.8	-0.02	10.7	0.01	14.2	0.01	17.2
2011-03-18 10:00	0.00	9.6	0.01	15.1	-0.01	13.8	0.00	10.6	-0.01	13.9	0.00	17.5
2011-03-18 10:15	0.00	9.5	0.00	15.3	0.01	13.8	0.01	10.8	0.01	14.2	0.01	17.2
2011-03-18 10:30	0.00	9.5	-0.01	15.2	-0.01	13.9	0.00	10.6	-0.02	14.1	0.02	17.5
2011-03-18 10:45	-0.01	9.5	0.01	15.2	0.01	13.8	0.01	10.7	0.00	14.0	0.01	17.3
2011-03-18 11:00	0.01	9.3	0.02	15.2	0.02	13.9	0.00	10.6	-0.01	14.1	0.01	17.3
2011-03-18 11:15	0.01	9.5	0.00	15.3	0.00	13.7	-0.01	10.8	0.00	14.3	0.02	17.4
2011-03-18 11:30	0.02	9.4	0.00	15.3	0.00	13.8	0.02	10.8	-0.01	14.2	0.01	17.3
2011-03-18 11:45	0.01	9.4	0.01	15.4	0.00	13.7	0.01	10.7	0.00	14.1	0.00	17.2
2011-03-18 12:00	0.01	9.6	0.00	15.3	0.01	13.8	0.02	10.8	-0.01	14.3	0.01	17.5
2011-03-18 12:15	-0.01	9.5	-0.01	15.5	0.00	13.8	0.01	10.6	-0.02	14.2	0.01	17.4
2011-03-18 12:30	0.02	9.4	0.02	15.4	0.01	14.0	0.02	10.6	-0.01	14.2	0.02	17.5
2011-03-18 12:45	0.01	9.5	0.00	15.5	0.00	14.0	0.01	10.9	-0.01	14.1	0.01	17.4

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-18 13:00	0.01	9.4	0.00	15.3	0.01	13.9	0.02	10.9	0.01	14.3	0.02	17.3
2011-03-18 13:15	0.00	9.6	-0.01	15.4	0.04	14.0	0.01	10.7	0.01	14.1	0.02	17.4
2011-03-18 13:30	0.02	9.6	0.00	15.4	0.01	13.9	0.03	10.9	0.01	14.3	0.03	17.4
2011-03-18 13:45	0.01	9.5	0.00	15.3	0.01	13.8	0.00	10.8	0.00	14.1	0.01	17.5
2011-03-18 14:00	0.04	9.7	0.01	15.4	0.02	13.7	0.00	10.7	0.00	14.1	0.00	17.5
2011-03-18 14:15	0.01	9.3	0.01	15.4	0.01	13.7	0.02	10.8	-0.02	14.1	0.02	17.4
2011-03-18 14:30	0.02	9.5	-0.02	15.3	0.00	13.8	0.02	10.7	0.01	14.4	0.02	17.5
2011-03-18 14:45	0.01	9.4	0.00	15.2	0.02	13.8	0.01	10.8	-0.01	14.2	0.01	17.3
2011-03-18 15:00	0.02	9.4	0.01	15.5	0.03	13.7	0.02	10.8	0.01	14.3	0.00	17.6
2011-03-18 15:15	0.03	9.6	-0.01	15.5	0.03	13.9	0.00	10.8	0.01	14.2	0.00	17.4
2011-03-18 15:30	0.03	9.3	0.02	15.3	0.02	13.7	0.01	10.8	-0.01	14.3	0.01	17.6
2011-03-18 15:45	0.03	9.5	0.01	15.4	0.02	13.9	0.01	10.9	0.00	14.1	0.01	17.6
2011-03-18 16:00	0.02	9.5	0.01	15.4	0.02	13.8	0.01	10.8	0.00	14.2	0.02	17.4
2011-03-18 16:15	0.03	9.5	0.00	15.2	0.02	13.8	0.03	10.9	-0.01	14.3	0.02	17.5
2011-03-18 16:30	0.01	9.5	-0.02	15.5	0.02	13.8	0.03	10.7	0.00	14.0	0.01	17.3
2011-03-18 16:45	0.04	9.6	0.00	15.5	0.02	13.8	0.01	10.7	-0.01	14.3	0.01	17.6
2011-03-18 17:00	0.04	9.5	0.01	15.5	0.03	13.8	0.02	10.7	-0.01	14.3	0.02	17.5
2011-03-18 17:15	0.04	9.5	0.00	15.3	0.01	13.9	0.04	10.7	0.00	14.2	0.01	17.6
2011-03-18 17:30	0.04	9.6	0.01	15.3	0.03	13.8	0.05	10.8	0.00	14.2	0.03	17.6
2011-03-18 17:45	0.02	9.5	0.00	15.2	0.03	13.9	0.02	10.8	0.01	14.3	0.00	18.1
2011-03-18 18:00	0.05	9.5	0.02	15.5	0.04	13.6	0.04	10.8	-0.01	14.2	-0.03	18.9
2011-03-18 18:15	0.05	9.5	0.03	15.4	0.02	13.7	0.02	10.7	0.02	14.4	0.03	17.9
2011-03-18 18:30	0.06	9.7	0.01	15.4	0.02	13.8	0.03	11.0	0.02	14.2	0.03	17.9
2011-03-18 18:45	0.04	9.8	0.01	16.4	0.04	13.7	0.03	10.9	0.00	14.2	0.01	17.8
2011-03-18 19:00	0.05	9.7	0.00	18.4	0.03	14.3	0.03	10.7	0.01	14.2	0.01	18.2
2011-03-18 19:15	0.03	9.7	0.03	20.7	0.05	15.0	0.03	10.8	0.01	14.5	0.02	17.9
2011-03-18 19:30	0.04	9.8	0.03	22.6	0.03	14.5	0.04	10.8	0.02	14.8	0.02	17.9
2011-03-18 19:45	0.06	9.7	0.02	23.4	0.05	14.5	0.04	10.8	0.02	15.3	0.03	18.6
2011-03-18 20:00	0.06	9.6	0.01	22.8	0.07	14.2	0.03	10.9	0.06	15.8	0.03	18.8
2011-03-18 20:15	0.05	9.7	-0.01	22.4	0.07	14.4	0.05	11.0	0.03	15.8	0.02	18.3
2011-03-18 20:30	0.05	9.7	0.01	21.4	0.05	14.1	0.04	11.0	0.03	16.9	0.02	18.6
2011-03-18 20:45	0.05	9.8	0.01	22.5	0.07	14.1	0.05	11.0	0.04	17.9	0.02	18.8
2011-03-18 21:00	0.06	9.9	0.00	23.3	0.06	14.0	0.05	11.1	0.02	19.2	0.03	19.1
2011-03-18 21:15	0.05	9.7	0.03	22.1	0.06	13.9	0.05	11.0	0.04	20.8	0.02	19.5
2011-03-18 21:30	0.05	9.8	0.02	20.8	0.06	13.9	0.05	11.0	0.06	23.2	0.03	20.0
2011-03-18 21:45	0.06	9.9	0.01	19.1	0.08	14.1	0.04	10.9	0.06	23.7	0.02	21.1
2011-03-18 22:00	0.11	9.8	0.04	18.1	0.06	13.9	0.06	10.9	0.05	23.7	0.03	20.9
2011-03-18 22:15	0.10	10.0	0.02	17.4	0.09	13.9	0.03	10.9	0.06	23.5	0.01	20.8
2011-03-18 22:30	0.09	9.9	0.04	16.9	0.09	13.9	0.05	11.0	0.04	23.0	0.01	21.1
2011-03-18 22:45	0.10	9.6	0.03	16.5	0.09	14.0	0.06	10.9	0.07	23.1	0.01	20.6
2011-03-18 23:00	0.09	9.8	0.04	16.3	0.06	14.0	0.05	10.8	0.03	23.0	0.02	20.3
2011-03-18 23:15	0.10	10.0	0.03	16.1	0.12	14.2	0.04	10.9	0.06	22.8	0.01	20.7
2011-03-18 23:30	0.13	10.7	0.03	17.7	0.13	14.8	0.04	10.9	0.04	23.0	0.01	20.6
2011-03-18 23:45	0.11	10.6	0.03	19.4	0.12	14.8	0.05	11.0	0.06	22.7	0.04	20.4
2011-03-19 0:00	0.11	10.4	0.03	18.7	0.09	14.7	0.07	11.0	0.04	21.9	0.03	19.8
2011-03-19 0:15	0.12	10.5	0.07	18.2	0.09	14.8	0.08	11.0	0.07	20.6	0.03	19.6
2011-03-19 0:30	0.11	10.7	0.06	17.7	0.09	16.2	0.07	10.8	0.05	19.4	0.03	19.8
2011-03-19 0:45	0.10	10.5	0.07	17.0	0.10	16.2	0.09	10.9	0.04	18.1	0.02	19.5
2011-03-19 1:00	0.08	10.5	0.04	17.1	0.10	16.0	0.08	11.0	0.03	17.0	0.01	19.6
2011-03-19 1:15	0.10	10.3	0.05	17.3	0.10	15.5	0.07	11.0	0.07	16.4	0.03	19.9
2011-03-19 1:30	0.10	10.3	0.03	16.8	0.09	15.1	0.08	10.9	0.04	15.6	0.01	20.3
2011-03-19 1:45	0.11	10.3	0.02	16.5	0.10	14.8	0.07	10.8	0.05	15.2	0.02	19.8
2011-03-19 2:00	0.12	10.3	0.03	16.2	0.10	14.8	0.09	10.9	0.05	14.9	0.01	19.3
2011-03-19 2:15	0.12	10.3	0.03	16.3	0.10	14.5	0.08	10.9	0.04	14.5	0.03	19.3
2011-03-19 2:30	0.11	10.2	0.04	16.1	0.10	14.8	0.07	11.0	0.04	14.3	0.03	18.9
2011-03-19 2:45	0.11	10.7	0.04	15.8	0.11	14.8	0.09	11.1	0.04	14.3	0.03	19.0
2011-03-19 3:00	0.10	11.9	0.04	16.2	0.10	16.6	0.07	11.2	0.05	14.4	0.04	19.6
2011-03-19 3:15	0.12	12.9	0.04	17.8	0.12	18.6	0.08	11.5	0.03	14.2	0.04	19.7
2011-03-19 3:30	0.10	13.6	0.06	19.5	0.10	19.7	0.08	11.6	0.05	14.3	0.03	19.9
2011-03-19 3:45	0.13	14.4	0.03	21.0	0.09	20.3	0.07	11.6	0.06	14.5	0.02	20.2
2011-03-19 4:00	0.12	14.8	0.04	22.0	0.09	20.2	0.08	11.5	0.02	14.7	0.04	20.8
2011-03-19 4:15	0.13	14.8	0.09	23.2	0.05	20.3	0.09	11.3	0.06	15.2	0.01	20.6
2011-03-19 4:30	0.12	14.3	0.05	24.0	0.08	19.7	0.09	11.1	0.06	15.4	0.00	20.7
2011-03-19 4:45	0.11	13.5	0.07	24.2	0.08	19.1	0.09	10.9	0.06	15.4	0.03	20.5
2011-03-19 5:00	0.14	12.4	0.05	24.5	0.10	18.1	0.09	10.9	0.04	15.7	0.00	21.1
2011-03-19 5:15	0.11	11.9	0.07	24.5	0.09	17.4	0.10	10.9	0.03	16.0	0.03	22.1
2011-03-19 5:30	0.11	11.5	0.06	23.8	0.08	17.0	0.08	10.9	0.05	16.3	0.01	22.5
2011-03-19 5:45	0.10	10.9	0.05	23.4	0.11	16.7	0.07	11.0	0.04	16.2	0.01	23.7

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-19 6:00	0.10	11.0	0.05	22.7	0.08	16.4	0.07	11.2	0.05	16.6	0.00	24.3
2011-03-19 6:15	0.11	11.5	0.07	23.3	0.08	17.2	0.09	11.1	0.03	17.3	0.00	25.1
2011-03-19 6:30	0.08	11.8	0.05	23.3	0.10	17.2	0.09	11.1	0.05	18.5	0.01	25.5
2011-03-19 6:45	0.09	11.8	0.06	23.4	0.08	17.2	0.08	11.0	0.06	19.3	0.02	26.4
2011-03-19 7:00	0.11	11.8	0.05	22.5	0.10	16.6	0.08	10.9	0.05	19.5	0.00	27.4
2011-03-19 7:15	0.11	12.1	0.04	22.8	0.08	16.9	0.07	10.8	0.05	19.2	0.00	27.9
2011-03-19 7:30	0.13	12.7	0.06	23.0	0.10	17.5	0.05	10.7	0.04	19.5	0.00	27.9
2011-03-19 7:45	0.10	12.5	0.07	23.1	0.09	17.7	0.06	11.4	0.03	19.9	-0.01	27.9
2011-03-19 8:00	0.11	12.8	0.06	22.3	0.09	17.7	0.10	12.7	0.04	20.4	-0.02	27.5
2011-03-19 8:15	0.11	12.8	0.05	22.0	0.09	17.4	0.07	13.5	0.04	20.4	0.00	27.2
2011-03-19 8:30	0.11	13.1	0.04	21.5	0.10	17.3	0.07	13.3	0.03	20.3	0.00	26.3
2011-03-19 8:45	0.11	13.0	0.05	20.7	0.10	17.1	0.07	13.4	0.04	21.3	0.00	25.7
2011-03-19 9:00	0.13	12.8	0.04	20.1	0.07	16.7	0.08	12.8	0.06	21.2	0.02	25.5
2011-03-19 9:15	0.12	12.4	0.05	19.1	0.08	16.5	0.09	12.4	0.04	20.8	0.03	25.3
2011-03-19 9:30	0.11	11.8	0.04	18.6	0.07	16.1	0.07	11.9	0.03	20.7	0.01	25.5
2011-03-19 9:45	0.11	11.1	0.05	18.0	0.10	15.7	0.06	11.5	0.05	20.2	0.03	25.0
2011-03-19 10:00	0.12	10.7	0.04	17.2	0.10	15.2	0.08	11.4	0.07	19.7	0.03	24.5
2011-03-19 10:15	0.13	10.4	0.07	16.6	0.11	14.8	0.08	11.0	0.07	19.0	0.03	24.0
2011-03-19 10:30	0.12	9.9	0.05	16.3	0.11	14.5	0.08	11.0	0.02	18.4	0.01	24.1
2011-03-19 10:45	0.13	9.9	0.04	15.9	0.11	14.6	0.08	10.8	0.05	18.2	0.04	24.0
2011-03-19 11:00	0.15	9.8	0.05	15.8	0.13	14.3	0.08	10.7	0.04	17.8	0.04	24.0
2011-03-19 11:15	0.16	9.7	0.05	15.9	0.16	14.2	0.08	10.8	0.05	17.8	0.03	23.2
2011-03-19 11:30	0.15	9.7	0.04	15.8	0.13	14.1	0.08	10.8	0.03	17.8	0.05	22.5
2011-03-19 11:45	0.15	9.7	0.04	15.6	0.13	13.9	0.08	10.7	0.06	18.0	0.07	22.2
2011-03-19 12:00	0.17	9.5	0.05	15.7	0.14	13.9	0.09	10.5	0.05	18.1	0.06	21.8
2011-03-19 12:15	0.16	9.5	0.06	15.3	0.15	13.8	0.10	10.7	0.04	18.2	0.07	22.1
2011-03-19 12:30	0.17	9.5	0.05	15.4	0.12	13.8	0.11	10.6	0.04	18.0	0.08	22.1
2011-03-19 12:45	0.14	9.7	0.07	15.1	0.15	13.9	0.09	10.8	0.05	18.0	0.07	22.0
2011-03-19 13:00	0.17	9.4	0.09	15.1	0.14	13.8	0.10	10.6	0.05	18.0	0.06	21.8
2011-03-19 13:15	0.16	9.5	0.10	15.1	0.15	13.8	0.10	10.8	0.04	17.9	0.07	21.3
2011-03-19 13:30	0.15	9.4	0.07	15.1	0.13	13.8	0.09	10.7	0.07	17.8	0.09	21.1
2011-03-19 13:45	0.14	9.6	0.08	15.1	0.14	13.8	0.10	10.9	0.05	17.4	0.08	20.7
2011-03-19 14:00	0.16	9.5	0.11	15.2	0.14	13.8	0.10	10.8	0.07	16.7	0.09	20.4
2011-03-19 14:15	0.16	9.6	0.08	15.0	0.14	14.0	0.12	10.7	0.07	16.3	0.09	19.8
2011-03-19 14:30	0.15	9.5	0.09	15.1	0.15	14.0	0.12	10.8	0.06	15.6	0.07	19.9
2011-03-19 14:45	0.18	9.5	0.08	15.2	0.14	13.9	0.13	10.8	0.06	15.1	0.08	19.9
2011-03-19 15:00	0.15	9.6	0.08	15.1	0.15	14.0	0.12	10.8	0.07	14.8	0.09	19.3
2011-03-19 15:15	0.15	9.5	0.08	15.1	0.14	14.1	0.14	10.7	0.10	14.7	0.10	19.2
2011-03-19 15:30	0.16	9.6	0.10	15.1	0.14	14.0	0.11	10.8	0.07	14.4	0.09	19.1
2011-03-19 15:45	0.14	9.5	0.10	15.1	0.14	14.0	0.11	10.6	0.07	14.1	0.09	19.1
2011-03-19 16:00	0.15	9.7			0.15	14.0	0.09	10.8	0.09	14.3	0.08	18.9
2011-03-19 16:15	0.16	9.7	0.08	15.0	0.14	14.1	0.11	10.7	0.09	13.9	0.09	18.5
2011-03-19 16:30	0.17	9.7	0.10	15.2	0.16	13.8	0.13	10.7	0.09	14.0	0.10	18.4
2011-03-19 16:45	0.15	9.7	0.10	15.2	0.17	14.0	0.10	10.7	0.12	14.0	0.10	17.9
2011-03-19 17:00	0.20	9.7	0.07	15.1	0.16	14.0	0.11	10.8	0.12	13.9	0.11	17.9
2011-03-19 17:15	0.17	9.7	0.08	14.9	0.16	14.0	0.12	10.9	0.10	13.9	0.11	17.9
2011-03-19 17:30	0.19	9.6	0.09	15.2	0.18	14.1	0.13	10.8	0.11	13.9	0.09	17.6
2011-03-19 17:45	0.19	9.6	0.08	15.0	0.17	14.0	0.13	10.7	0.13	14.0	0.11	17.7
2011-03-19 18:00	0.19	9.8	0.10	15.2	0.17	13.9	0.13	10.7	0.13	14.0	0.11	17.5
2011-03-19 18:15	0.19	9.7	0.12	15.2	0.19	14.0	0.11	10.8	0.15	13.9	0.11	17.8
2011-03-19 18:30	0.20	9.7	0.14	15.3	0.19	13.8	0.11	10.8	0.12	14.0	0.12	17.7
2011-03-19 18:45	0.22	9.5	0.13	15.4	0.19	14.1	0.12	10.7	0.13	14.0	0.13	17.9
2011-03-19 19:00	0.16	9.7	0.13	15.3	0.19	14.1	0.12	10.7	0.15	13.8	0.13	17.8
2011-03-19 19:15	0.14	9.7	0.12	15.2	0.17	14.0	0.14	10.9	0.11	14.1	0.16	17.9
2011-03-19 19:30	0.16	9.7	0.14	15.4	0.14	14.0	0.16	10.8	0.12	13.9	0.18	18.0
2011-03-19 19:45	0.15	9.6	0.14	15.5	0.18	13.9	0.15	10.9	0.14	14.1	0.19	18.1
2011-03-19 20:00	0.17	9.4	0.14	15.5	0.17	14.0	0.18	10.8	0.13	14.1	0.19	18.1
2011-03-19 20:15	0.16	9.6	0.14	15.4	0.20	14.0	0.17	11.0	0.19	14.4	0.18	18.1
2011-03-19 20:30	0.14	9.4	0.13	15.5	0.29	14.3	0.19	10.9	0.17	14.3	0.21	18.1
2011-03-19 20:45	0.15	9.5	0.11	15.5	0.32	14.3	0.18	10.9	0.19	14.2	0.21	18.2
2011-03-19 21:00	0.26	9.8	0.13	15.5	0.34	14.4	0.21	11.0	0.19	14.4	0.24	18.1
2011-03-19 21:15	0.39	10.3	0.15	15.6	0.34	14.2	0.19	11.0	0.23	14.5	0.24	18.0
2011-03-19 21:30	0.42	10.1	0.14	15.4	0.30	14.2	0.20	11.0	0.24	14.5	0.25	18.3
2011-03-19 21:45	0.46	10.1	0.15	15.4	0.33	14.3	0.23	11.1	0.24	14.5	0.25	18.2
2011-03-19 22:00	0.48	10.2	0.16	15.4	0.35	14.3	0.22	11.1	0.22	14.6	0.27	18.2
2011-03-19 22:15	0.45	10.2	0.22	15.4	0.35	14.4	0.25	11.1	0.26	14.5	0.30	18.2
2011-03-19 22:30	0.52	10.2	0.23	15.6	0.36	14.3	0.30	11.1	0.26	14.4	0.29	18.2
2011-03-19 22:45	0.55	10.3	0.25	15.6	0.38	14.4	0.31	11.3	0.26	14.5	0.25	18.1

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-19 23:00	0.58	10.4	0.26	15.7	0.42	14.3	0.35	11.2	0.28	14.6	0.28	18.2
2011-03-19 23:15	0.59	10.3	0.26	15.6	0.42	14.4	0.36	11.3	0.25	14.5	0.29	18.2
2011-03-19 23:30	0.52	10.2	0.26	15.8	0.44	14.5	0.37	11.5	0.27	14.5	0.30	18.2
2011-03-19 23:45	0.49	10.2	0.29	15.8	0.42	14.3	0.38	11.1	0.26	14.5	0.29	18.3
2011-03-20 0:00	0.49	10.1	0.28	15.8	0.42	14.5	0.41	11.4	0.26	14.4	0.35	18.3
2011-03-20 0:15	0.54	10.0	0.32	15.8	0.43	14.5	0.48	11.4	0.25	14.4	0.34	18.3
2011-03-20 0:30	0.54	10.2	0.31	15.8	0.46	14.5	0.47	11.5	0.24	14.5	0.31	18.3
2011-03-20 0:45	0.54	10.3	0.31	15.6	0.45	14.5	0.45	11.4	0.25	14.5	0.28	18.3
2011-03-20 1:00	0.55	10.3	0.33	15.7	0.41	14.2	0.44	11.4	0.24	14.4	0.33	18.4
2011-03-20 1:15	0.46	10.1	0.32	15.8	0.40	14.3	0.40	11.2	0.25	14.5	0.31	18.3
2011-03-20 1:30	0.45	10.2	0.30	15.7	0.43	14.4	0.41	11.2	0.26	14.8	0.32	18.3
2011-03-20 1:45	0.49	10.1	0.27	15.7	0.44	14.5	0.41	11.3	0.27	15.1	0.32	18.2
2011-03-20 2:00	0.49	10.1	0.21	15.6	0.40	14.5	0.46	11.3	0.25	14.8	0.32	18.2
2011-03-20 2:15	0.47	10.3	0.22	15.6	0.40	14.6	0.43	11.4	0.25	14.6	0.31	18.1
2011-03-20 2:30	0.41	9.9			0.36	14.4	0.45	11.4	0.25	14.5	0.31	18.3
2011-03-20 2:45	0.42	10.3	0.23	15.6	0.38	14.3	0.42	11.2	0.25	14.4	0.29	18.1
2011-03-20 3:00	0.45	10.2	0.24	15.5	0.42	14.5	0.42	11.4	0.27	14.4	0.29	18.4
2011-03-20 3:15	0.50	10.2	0.21	15.5	0.40	14.5	0.40	11.2	0.27	14.5	0.32	18.2
2011-03-20 3:30	0.51	10.3	0.21	15.5	0.37	14.4	0.39	11.3	0.28	14.6	0.32	18.3
2011-03-20 3:45	0.48	10.1	0.18	15.5	0.39	14.5	0.41	11.2	0.28	14.5	0.29	18.1
2011-03-20 4:00	0.46	10.2	0.20	15.4	0.37	14.3	0.42	11.3	0.30	14.6	0.30	18.2
2011-03-20 4:15	0.43	10.1	0.17	15.5	0.35	14.3	0.39	11.4	0.30	14.5	0.28	18.1
2011-03-20 4:30	0.43	9.9	0.19	15.3	0.38	14.5	0.38	11.4	0.29	14.5	0.28	18.1
2011-03-20 4:45	0.40	10.2	0.17	15.6	0.38	14.2	0.37	11.4	0.30	14.5	0.28	18.1
2011-03-20 5:00	0.41	10.0	0.17	15.5	0.38	14.4	0.37	11.3	0.29	14.5	0.27	18.0
2011-03-20 5:15	0.44	10.2	0.18	15.5	0.40	14.5	0.36	11.3	0.27	14.3	0.28	18.0
2011-03-20 5:30	0.44	10.1	0.18	15.5	0.40	14.4	0.36	11.1	0.31	14.6	0.27	18.1
2011-03-20 5:45	0.46	10.2	0.17	15.5	0.40	14.5	0.35	11.2	0.30	14.5	0.27	18.0
2011-03-20 6:00	0.47	10.1	0.16	15.5	0.39	14.2	0.37	11.2	0.28	14.4	0.28	17.9
2011-03-20 6:15	0.47	10.2	0.14	15.5	0.40	14.3	0.37	11.1	0.29	14.6	0.30	18.2
2011-03-20 6:30	0.43	9.9	0.13	15.3	0.38	14.3	0.38	11.1	0.30	14.6	0.27	18.0
2011-03-20 6:45	0.40	10.1	0.13	15.6	0.35	14.2	0.38	11.3	0.29	14.6	0.27	18.1
2011-03-20 7:00	0.39	9.9	0.16	15.5	0.33	14.5	0.38	11.1	0.30	14.6	0.25	18.1
2011-03-20 7:15	0.38	10.2	0.15	15.6	0.33	14.3	0.39	11.3	0.30	14.5	0.27	18.0
2011-03-20 7:30	0.37	10.0	0.16	15.6	0.33	14.2	0.36	11.2	0.28	14.5	0.26	18.1
2011-03-20 7:45	0.34	9.9	0.13	15.4	0.29	14.5	0.40	11.4	0.29	14.5	0.25	18.1
2011-03-20 8:00	0.32	9.8	0.16	15.5	0.31	14.3	0.37	11.2	0.32	14.6	0.25	18.0
2011-03-20 8:15	0.32	9.9	0.17	15.6	0.28	14.1	0.35	11.2	0.30	14.7	0.24	18.2
2011-03-20 8:30	0.33	9.9	0.18	15.7	0.29	14.3	0.37	11.4	0.31	14.5	0.25	17.9
2011-03-20 8:45	0.33	9.8	0.17	15.7	0.31	14.1	0.35	11.2	0.30	14.6	0.25	17.9
2011-03-20 9:00	0.34	9.8	0.17	15.6	0.31	14.4	0.34	11.4	0.31	14.7	0.25	18.1
2011-03-20 9:15	0.35	9.9	0.15	15.6	0.30	14.1	0.32	11.1	0.32	14.8	0.24	18.0
2011-03-20 9:30	0.35	10.0	0.18	15.8	0.28	14.3	0.33	11.1	0.31	14.6	0.24	18.0
2011-03-20 9:45	0.35	10.1	0.15	15.5	0.33	14.3	0.30	11.0	0.29	14.6	0.24	18.1
2011-03-20 10:00	0.37	10.0	0.19	15.5	0.33	14.5	0.30	11.1	0.32	14.8	0.23	17.9
2011-03-20 10:15	0.35	10.0	0.17	15.4	0.31	14.2	0.32	11.2	0.30	14.6	0.24	18.1
2011-03-20 10:30	0.35	10.0	0.16	15.5	0.31	14.3	0.30	11.2	0.30	14.7	0.23	18.1
2011-03-20 10:45	0.33	10.0	0.19	15.5	0.32	14.4	0.30	11.0	0.29	14.6	0.24	18.0
2011-03-20 11:00	0.34	9.9	0.18	15.5	0.30	14.3	0.31	11.1	0.30	14.6	0.25	18.1
2011-03-20 11:15	0.35	10.0	0.17	15.4	0.34	14.3	0.32	11.1	0.31	14.8	0.23	18.1
2011-03-20 11:30	0.34	10.1	0.18	15.6	0.31	14.5	0.32	11.1	0.26	14.4	0.24	18.2
2011-03-20 11:45	0.34	10.0	0.18	15.6	0.29	14.5	0.30	11.1	0.28	14.6	0.23	18.0
2011-03-20 12:00	0.35	10.1	0.19	15.4	0.29	14.4	0.30	11.2	0.26	14.4	0.25	17.8
2011-03-20 12:15	0.32	9.9	0.16	15.6	0.29	14.3	0.29	11.1	0.25	14.4	0.23	18.1
2011-03-20 12:30	0.33	9.7	0.20	15.6	0.30	14.2	0.30	11.1	0.23	14.5	0.25	18.0
2011-03-20 12:45	0.32	9.8	0.19	15.5	0.28	14.2	0.28	11.0	0.23	14.5	0.23	18.2
2011-03-20 13:00	0.32	10.0	0.17	15.5	0.29	14.4	0.27	11.1	0.22	14.5	0.22	18.0
2011-03-20 13:15	0.31	9.9	0.19	15.4	0.30	14.2	0.27	11.1	0.21	14.4	0.20	18.2
2011-03-20 13:30	0.32	9.8	0.17	15.5	0.29	14.2	0.25	11.2	0.20	14.4	0.22	17.8
2011-03-20 13:45	0.32	10.0	0.21	15.6	0.29	14.2	0.24	11.0	0.20	14.4	0.24	18.4
2011-03-20 14:00	0.31	10.0	0.19	15.4	0.27	14.2	0.26	11.0	0.20	14.2	0.22	18.0
2011-03-20 14:15	0.32	9.9	0.20	15.5	0.29	14.3	0.25	11.0	0.19	14.3	0.22	18.1
2011-03-20 14:30	0.32	9.9	0.21	15.5	0.27	14.2	0.25	11.2	0.20	14.5	0.22	18.3
2011-03-20 14:45	0.32	9.9	0.18	15.6	0.29	14.4	0.25	11.0	0.21	14.6	0.21	17.9
2011-03-20 15:00	0.32	9.8	0.17	15.3	0.29	14.3	0.26	11.0	0.19	14.4	0.24	18.2
2011-03-20 15:15	0.30	9.8	0.19	15.4	0.28	14.3	0.26	11.2	0.20	14.6	0.23	18.0
2011-03-20 15:30	0.32	9.9	0.18	15.4	0.29	14.3	0.26	11.1	0.23	14.5	0.25	18.5
2011-03-20 15:45	0.30	9.9	0.19	15.7	0.27	14.1	0.26	11.2	0.18	14.5	0.24	18.1

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-20 16:00	0.31	9.8	0.17	15.4	0.28	14.2	0.27	11.1	0.18	14.6	0.23	18.0
2011-03-20 16:15	0.29	9.9	0.18	15.5	0.27	14.4	0.26	11.2	0.18	14.6	0.21	18.2
2011-03-20 16:30	0.28	9.9	0.17	15.3	0.25	14.1	0.24	11.1	0.21	14.8	0.23	18.3
2011-03-20 16:45	0.28	10.0	0.18	15.4	0.24	14.1	0.27	11.0	0.22	14.5	0.22	18.2
2011-03-20 17:00	0.30	10.1	0.17	15.5	0.23	14.2	0.25	11.0	0.19	14.5	0.23	18.1
2011-03-20 17:15	0.26	9.9	0.18	15.4	0.25	14.2	0.26	10.9	0.23	14.4	0.21	18.1
2011-03-20 17:30	0.28	10.0	0.17	15.6	0.24	14.4	0.24	11.1	0.25	14.6	0.21	18.2
2011-03-20 17:45	0.27	10.2	0.15	15.7	0.23	14.4	0.25	10.9	0.25	14.5	0.21	18.3
2011-03-20 18:00	0.27	10.0	0.17	15.5	0.26	14.3	0.24	11.0	0.26	14.7	0.23	18.3
2011-03-20 18:15	0.29	10.0	0.15	15.5	0.25	14.3	0.25	11.1	0.24	14.5	0.22	18.5
2011-03-20 18:30	0.28	9.9	0.17	15.5	0.24	14.3	0.26	11.0	0.27	14.6	0.23	18.6
2011-03-20 18:45	0.29	9.9	0.15	15.6	0.28	14.4	0.25	11.2	0.28	14.7	0.21	18.6
2011-03-20 19:00	0.29	9.9			0.27	14.4	0.25	11.2	0.25	14.8	0.22	18.5
2011-03-20 19:15	0.31	9.8	0.17	15.6	0.28	14.4	0.25	10.9	0.24	14.6	0.21	18.5
2011-03-20 19:30	0.30	10.0	0.16	15.6	0.28	14.4	0.27	11.2	0.25	14.5	0.19	18.6
2011-03-20 19:45	0.32	10.0	0.18	15.6	0.26	14.2	0.27	11.2	0.27	14.7	0.17	18.5
2011-03-20 20:00	0.32	10.0	0.17	15.6	0.28	14.3	0.26	11.1	0.26	14.7	0.17	18.5
2011-03-20 20:15	0.30	10.1	0.16	15.7	0.29	14.1	0.28	11.2	0.25	14.6	0.17	18.4
2011-03-20 20:30	0.31	9.9	0.17	15.7	0.27	14.2	0.27	11.1	0.27	14.6	0.16	18.7
2011-03-20 20:45	0.30	10.0	0.20	15.7	0.28	14.3	0.27	11.3	0.25	14.6	0.17	18.3
2011-03-20 21:00	0.30	10.0	0.21	15.5	0.27	14.2	0.27	11.2	0.26	14.6	0.17	18.5
2011-03-20 21:15	0.30	9.9	0.22	15.6	0.27	14.4	0.24	11.1	0.29	14.9	0.16	18.5
2011-03-20 21:30	0.30	10.1	0.19	15.6	0.29	14.2	0.27	11.0	0.24	14.9	0.16	18.4
2011-03-20 21:45	0.32	10.4	0.18	15.7	0.25	14.5	0.25	11.1	0.23	14.8	0.16	18.6
2011-03-20 22:00	0.30	10.2	0.19	15.8	0.27	14.6	0.26	11.1	0.26	15.0	0.15	18.3
2011-03-20 22:15	0.31	10.1	0.18	15.7	0.30	14.2	0.25	11.0	0.24	14.8	0.15	18.5
2011-03-20 22:30	0.32	10.1	0.17	15.6	0.28	14.4	0.26	11.0	0.26	14.8	0.12	18.6
2011-03-20 22:45	0.31	10.1	0.19	15.7	0.28	14.6	0.26	11.2	0.25	14.7	0.15	18.3
2011-03-20 23:00	0.32	10.1	0.19	15.7	0.30	14.4	0.26	11.3	0.27	14.7	0.14	18.2
2011-03-20 23:15	0.32	10.0	0.18	15.5	0.27	14.3	0.28	11.2	0.27	14.7	0.16	18.3
2011-03-20 23:30	0.31	9.8	0.18	15.7	0.27	14.4	0.24	11.3	0.26	14.7	0.16	18.5
2011-03-20 23:45	0.30	10.0	0.20	15.6	0.27	14.4	0.25	11.1	0.25	15.0	0.17	18.5
2011-03-21 0:00	0.29	10.0	0.18	15.6	0.30	14.3	0.27	11.2	0.29	14.6	0.17	18.6
2011-03-21 0:15	0.31	9.8	0.19	15.6	0.28	14.2	0.24	11.3	0.31	14.8	0.17	18.6
2011-03-21 0:30	0.29	9.9	0.19	15.7	0.29	14.2	0.25	11.2	0.26	14.6	0.16	18.4
2011-03-21 0:45	0.30	9.9	0.16	15.7	0.28	14.1	0.24	11.2	0.30	14.7	0.17	18.3
2011-03-21 1:00	0.30	9.9	0.15	15.5	0.26	14.1	0.24	11.2	0.30	14.7	0.18	18.5
2011-03-21 1:15	0.29	9.8	0.17	15.6	0.26	14.4	0.22	11.2	0.28	14.8	0.18	18.4
2011-03-21 1:30	0.29	9.8	0.16	15.9	0.26	14.2	0.24	11.2	0.28	14.6	0.19	18.2
2011-03-21 1:45	0.27	10.0	0.17	15.5	0.26	14.2	0.21	11.1	0.27	14.6	0.17	18.4
2011-03-21 2:00	0.30	10.1	0.15	15.7	0.24	14.2	0.23	11.1	0.25	14.7	0.17	18.3
2011-03-21 2:15	0.27	9.8	0.16	15.6	0.26	14.4	0.24	11.0	0.26	14.7	0.15	18.3
2011-03-21 2:30	0.27	10.1	0.17	15.7	0.22	14.2	0.24	11.2	0.27	14.7	0.19	18.3
2011-03-21 2:45	0.26	10.2	0.17	15.4	0.26	14.2	0.23	11.1	0.26	14.5	0.17	18.2
2011-03-21 3:00	0.26	10.0	0.18	15.6	0.25	14.3	0.23	11.2	0.26	14.7	0.16	18.1
2011-03-21 3:15	0.26	9.8	0.16	15.3	0.25	14.1	0.24	10.9	0.27	14.6	0.19	18.3
2011-03-21 3:30	0.29	10.0	0.16	15.4	0.23	14.3	0.22	11.1	0.28	14.7	0.15	18.1
2011-03-21 3:45	0.28	10.1	0.14	15.6	0.25	14.3	0.23	11.2	0.26	14.6	0.17	18.2
2011-03-21 4:00	0.30	10.0	0.17	15.6	0.28	14.3	0.21	11.0	0.24	14.6	0.16	18.1
2011-03-21 4:15	0.30	10.0	0.17	15.4	0.25	14.2	0.23	11.0	0.26	14.7	0.18	18.2
2011-03-21 4:30	0.30	9.9	0.18	15.4	0.28	14.2	0.22	11.0	0.26	14.6	0.16	18.1
2011-03-21 4:45	0.29	10.0	0.17	15.4	0.24	14.3	0.21	11.3	0.25	14.7	0.15	18.2
2011-03-21 5:00	0.29	9.9	0.16	15.5	0.27	14.3	0.22	11.1	0.26	14.7	0.17	18.1
2011-03-21 5:15	0.29	9.9	0.16	15.5	0.26	14.4	0.23	11.1	0.24	14.8	0.17	18.0
2011-03-21 5:30	0.28	9.9	0.16	15.6	0.27	14.4	0.23	11.1	0.25	14.9	0.13	18.2
2011-03-21 5:45	0.28	9.9	0.17	15.7	0.26	14.2	0.23	11.1	0.25	14.7	0.13	18.3
2011-03-21 6:00	0.27	10.0	0.15	15.6	0.26	14.4	0.22	11.0	0.23	14.8	0.16	18.1
2011-03-21 6:15	0.29	10.0	0.17	15.6	0.25	14.3	0.23	11.2	0.25	14.9	0.16	18.5
2011-03-21 6:30	0.28	10.2	0.15	15.5	0.26	14.2	0.23	11.1	0.25	14.8	0.15	18.2
2011-03-21 6:45	0.28	10.4	0.16	15.6	0.26	14.5	0.23	11.2	0.23	14.7	0.15	18.1
2011-03-21 7:00	0.29	10.6	0.18	15.6	0.26	14.6	0.23	11.2	0.24	14.6	0.14	18.1
2011-03-21 7:15	0.27	10.6	0.17	15.7	0.25	14.8	0.22	11.3	0.25	14.8	0.14	18.2
2011-03-21 7:30	0.28	10.7	0.15	15.8	0.25	15.0	0.21	11.2	0.23	14.7	0.14	18.2
2011-03-21 7:45	0.28	11.7	0.17	15.8	0.26	15.8	0.21	11.6	0.24	14.7	0.17	18.4
2011-03-21 8:00	0.28	12.2	0.16	15.9	0.25	16.2	0.21	13.0	0.24	14.6	0.14	18.5
2011-03-21 8:15	0.27	13.1	0.16	16.7	0.26	17.9	0.21	13.4	0.25	14.8	0.15	18.3
2011-03-21 8:30	0.28	14.5	0.16	17.3	0.26	19.5	0.20	13.6	0.25	14.7	0.14	18.5
2011-03-21 8:45	0.27	14.7	0.17	17.1	0.23	20.3	0.19	14.0	0.24	14.8	0.16	18.5

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-21 9:00	0.27	15.5	0.14	17.4	0.23	20.2	0.20	13.9	0.25	15.0	0.16	18.5
2011-03-21 9:15	0.28	15.1	0.14	18.1	0.24	20.0	0.21	14.0	0.22	14.9	0.12	18.4
2011-03-21 9:30	0.26	14.7	0.15	19.5	0.22	19.2	0.19	14.7	0.24	14.8	0.13	18.5
2011-03-21 9:45	0.24	14.4	0.15	22.0	0.24	18.7	0.18	15.6	0.23	14.7	0.13	19.0
2011-03-21 10:00	0.26	15.4	0.15	24.1	0.21	18.9	0.17	16.1	0.24	15.0	0.14	19.4
2011-03-21 10:15	0.27	15.1	0.14	24.8	0.23	20.4	0.15	16.5	0.26	15.0	0.10	20.3
2011-03-21 10:30	0.23	14.8	0.16	23.3	0.21	21.1	0.16	16.6	0.24	15.0	0.13	20.7
2011-03-21 10:45	0.26	14.6	0.14	22.5	0.23	21.3	0.17	16.2	0.25	15.2	0.11	21.0
2011-03-21 11:00	0.26	14.9	0.13	21.7	0.20	20.7	0.14	16.1	0.25	15.5	0.11	21.8
2011-03-21 11:15	0.23	14.4	0.12	21.1	0.19	21.0	0.15	16.1	0.22	15.8	0.11	21.6
2011-03-21 11:30	0.22	14.2	0.11	20.9	0.17	20.4	0.14	15.8	0.23	16.5	0.10	22.3
2011-03-21 11:45	0.20	14.1	0.13	20.9	0.18	20.0	0.12	15.1	0.21	16.7	0.09	22.6
2011-03-21 12:00	0.22	14.0	0.11	20.9	0.15	18.8	0.14	14.4	0.25	16.5	0.08	22.5
2011-03-21 12:15	0.20	13.2	0.13	21.5	0.17	17.9	0.14	13.7	0.22	16.3	0.10	22.6
2011-03-21 12:30	0.18	13.1	0.11	22.7	0.17	17.7	0.11	13.2	0.23	16.6	0.11	22.8
2011-03-21 12:45	0.21	14.3	0.13	22.7	0.16	18.5	0.15	13.6	0.22	16.6	0.09	23.4
2011-03-21 13:00	0.20	15.4	0.12	22.4	0.17	20.4	0.13	14.8	0.23	16.4	0.08	24.1
2011-03-21 13:15	0.19	15.7	0.12	22.9	0.17	22.0	0.11	15.2	0.22	16.8	0.08	23.9
2011-03-21 13:30	0.21	15.7	0.12	23.4	0.17	21.8	0.12	15.8	0.23	17.1	0.08	24.4
2011-03-21 13:45	0.22	16.6	0.11	23.4	0.16	22.4	0.14	16.1	0.22	16.9	0.07	24.7
2011-03-21 14:00	0.19	16.2	0.10	23.5	0.17	22.2	0.15	16.2	0.22	16.4	0.09	24.6
2011-03-21 14:15	0.18	16.7	0.12	23.4	0.18	22.2	0.13	16.0	0.21	16.7	0.10	25.0
2011-03-21 14:30	0.19	17.3	0.12	23.9	0.15	22.0	0.14	16.4	0.21	17.1	0.07	25.0
2011-03-21 14:45	0.19	16.3	0.12	24.0	0.16	22.1	0.14	15.8	0.22	17.5	0.09	25.3
2011-03-21 15:00	0.19	15.1	0.12	23.9	0.16	20.6	0.12	14.6	0.24	18.0	0.08	25.1
2011-03-21 15:15	0.19	14.8	0.11	23.7	0.18	19.6	0.14	14.1	0.22	17.7	0.09	24.8
2011-03-21 15:30	0.19	15.0	0.13	23.7	0.14	19.4	0.11	14.5	0.20	17.5	0.08	25.3
2011-03-21 15:45	0.19	15.1	0.08	24.2	0.15	19.3	0.13	14.1	0.21	17.7	0.08	26.0
2011-03-21 16:00	0.20	15.4	0.11	22.9	0.14	20.0	0.13	13.5	0.22	17.7	0.07	26.2
2011-03-21 16:15	0.18	15.5	0.13	22.7	0.16	19.7	0.12	13.0	0.21	17.5	0.08	26.8
2011-03-21 16:30	0.19	15.4	0.11	22.4	0.16	19.6	0.12	12.4	0.20	17.4	0.08	27.0
2011-03-21 16:45	0.19	14.8	0.11	21.2	0.18	19.6	0.13	12.1	0.22	17.5	0.04	27.0
2011-03-21 17:00	0.18	14.5	0.11	20.7	0.15	19.1	0.12	12.1	0.21	17.7	0.10	27.0
2011-03-21 17:15	0.18	14.0	0.12	20.1	0.17	19.2	0.13	12.0	0.20	17.8	0.09	27.0
2011-03-21 17:30	0.19	13.6	0.11	20.1	0.16	19.5	0.14	11.8	0.20	18.3	0.10	27.1
2011-03-21 17:45	0.16	13.2	0.13	19.3	0.16	18.9	0.11	11.7	0.21	18.4	0.09	27.1
2011-03-21 18:00	0.19	12.8	0.11	18.6	0.17	18.3	0.13	12.1	0.19	18.1	0.06	26.6
2011-03-21 18:15	0.19	12.1	0.11	18.0	0.17	17.2	0.13	12.7	0.23	18.5	0.08	26.3
2011-03-21 18:30	0.17	11.7	0.11	17.8	0.15	16.5	0.14	13.0	0.22	18.5	0.09	25.8
2011-03-21 18:45	0.17	11.5	0.11	17.7	0.14	16.0	0.14	12.9	0.19	18.4	0.08	25.4
2011-03-21 19:00	0.17	11.1	0.11	17.3	0.15	15.7	0.11	12.8	0.20	17.9	0.08	24.5
2011-03-21 19:15	0.18	10.9	0.10	16.9	0.16	15.3	0.12	13.0	0.19	17.3	0.09	23.7
2011-03-21 19:30	0.18	10.7	0.10	16.6	0.17	15.1	0.14	12.7	0.18	16.5	0.10	23.9
2011-03-21 19:45	0.18	10.5	0.12	16.4	0.14	14.9	0.14	12.4	0.19	16.5	0.09	24.0
2011-03-21 20:00	0.17	10.5	0.12	16.1	0.16	14.8	0.14	12.2	0.18	15.9	0.09	23.6
2011-03-21 20:15	0.18	10.4	0.10	16.0	0.16	14.5	0.12	12.0	0.18	15.9	0.08	23.8
2011-03-21 20:30	0.16	10.1	0.10	16.2	0.15	14.6	0.12	11.8	0.18	15.7	0.07	24.0
2011-03-21 20:45	0.18	10.3	0.10	16.4	0.16	14.6	0.12	11.6	0.16	15.2	0.06	24.4
2011-03-21 21:00	0.16	10.2	0.12	16.3	0.18	14.8	0.12	11.4	0.17	15.3	0.09	24.1
2011-03-21 21:15	0.15	10.1	0.10	16.3	0.17	14.5	0.13	11.5	0.18	15.2	0.07	23.8
2011-03-21 21:30	0.15	10.1	0.12	16.3	0.15	14.4	0.13	11.1	0.18	15.4	0.07	23.5
2011-03-21 21:45	0.16	10.0	0.09	16.1	0.15	14.3	0.14	11.1	0.20	15.5	0.07	22.8
2011-03-21 22:00	0.17	10.3	0.13	16.2	0.13	14.3	0.16	11.1	0.20	15.4	0.07	21.7
2011-03-21 22:15	0.16	10.0	0.13	16.1	0.16	14.4	0.17	11.0	0.18	15.4	0.07	20.9
2011-03-21 22:30	0.18	10.2	0.11	15.8	0.17	14.3	0.18	11.0	0.19	15.1	0.07	20.5
2011-03-21 22:45	0.17	9.8	0.11	15.8	0.15	14.2	0.16	11.0	0.20	15.1	0.09	20.3
2011-03-21 23:00	0.16	9.9	0.14	15.8	0.17	14.2	0.15	11.0	0.16	14.9	0.08	20.3
2011-03-21 23:15	0.19	9.9	0.10	15.8	0.16	13.9	0.18	11.1	0.18	14.6	0.11	20.2
2011-03-21 23:30	0.17	10.0	0.10	15.6	0.16	14.0	0.15	11.0	0.18	14.8	0.10	20.2
2011-03-21 23:45	0.19	9.9	0.10	15.7	0.18	13.9	0.16	11.1	0.17	14.8	0.10	20.0
2011-03-22 0:00	0.20	10.0	0.11	15.8	0.18	14.0	0.15	11.1	0.17	14.9	0.09	19.8
2011-03-22 0:15	0.21	9.8	0.09	15.6	0.19	14.0	0.16	10.9	0.21	14.8	0.11	19.4
2011-03-22 0:30	0.20	10.0	0.08	15.6	0.18	14.2	0.16	11.0	0.18	14.8	0.11	19.1
2011-03-22 0:45	0.20	9.7	0.12	15.7	0.18	14.0	0.16	10.9	0.20	15.1	0.10	18.6
2011-03-22 1:00	0.18	9.8	0.10	15.4	0.17	14.2	0.16	11.1	0.19	15.4	0.08	18.4
2011-03-22 1:15	0.19	9.8	0.09	15.6	0.17	13.9	0.15	11.3	0.19	15.4	0.10	18.2
2011-03-22 1:30	0.20	9.7	0.09	15.4	0.17	14.0	0.15	11.1	0.18	15.5	0.09	18.4
2011-03-22 1:45	0.21	9.7	0.08	15.3	0.17	14.1	0.14	10.9	0.18	15.2	0.09	18.2

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-22 2:00	0.19	9.6	0.11	15.7	0.16	14.1	0.18	11.1	0.17	15.1	0.08	18.4
2011-03-22 2:15	0.19	9.5	0.11	15.5	0.16	14.1	0.14	10.8	0.18	15.1	0.12	18.0
2011-03-22 2:30	0.17	9.5	0.12	15.6	0.16	14.0	0.11	10.8	0.18	14.6	0.12	18.1
2011-03-22 2:45	0.17	9.6	0.10	15.5	0.15	14.1	0.11	10.8	0.18	14.8	0.11	18.2
2011-03-22 3:00	0.14	9.6	0.11	15.6	0.14	14.1	0.12	10.7	0.18	14.8	0.11	18.4
2011-03-22 3:15	0.13	9.5	0.10	15.5	0.14	14.0	0.09	10.7	0.18	14.8	0.13	18.0
2011-03-22 3:30	0.12	9.4	0.10	15.5	0.14	13.9	0.09	10.8	0.17	14.7	0.09	18.1
2011-03-22 3:45	0.13	9.4	0.11	15.4	0.13	14.0	0.11	10.8	0.17	14.7	0.11	18.1
2011-03-22 4:00	0.14	9.6	0.10	15.4	0.13	13.9	0.10	11.0	0.16	14.7	0.12	18.0
2011-03-22 4:15	0.14	9.6	0.10	15.4	0.14	13.9	0.11	10.9	0.20	14.7	0.11	18.0
2011-03-22 4:30	0.15	9.7	0.10	15.3	0.13	13.8	0.11	10.8	0.20	14.6	0.09	18.0
2011-03-22 4:45	0.15	9.5	0.09	15.1	0.14	14.0	0.13	10.7	0.16	14.3	0.11	17.8
2011-03-22 5:00	0.17	9.5	0.10	15.1	0.15	13.9	0.12	10.6	0.19	14.7	0.12	18.1
2011-03-22 5:15	0.16	9.5	0.11	15.2	0.13	13.8	0.14	10.9	0.15	14.4	0.09	18.0
2011-03-22 5:30	0.14	9.5	0.09	15.2	0.12	13.8	0.12	10.8	0.18	14.6	0.09	17.9
2011-03-22 5:45	0.16	9.4	0.10	15.2	0.15	13.9	0.12	10.8	0.19	14.6	0.13	18.1
2011-03-22 6:00	0.15	9.4	0.08	15.1	0.15	13.9	0.13	11.0	0.16	14.3	0.11	17.9
2011-03-22 6:15	0.17	9.3	0.07	15.1	0.16	14.0	0.12	10.8	0.16	14.2	0.10	18.0
2011-03-22 6:30	0.16	9.5	0.09	15.2	0.16	13.9	0.12	10.9	0.16	14.3	0.09	17.9
2011-03-22 6:45	0.14	9.5	0.09	15.0	0.14	13.9	0.09	10.7	0.17	14.4	0.10	17.8
2011-03-22 7:00	0.12	9.5	0.10	15.2	0.15	13.8	0.11	10.8	0.15	14.4	0.11	17.9
2011-03-22 7:15	0.12	9.4	0.09	15.1	0.12	13.7	0.10	10.8	0.14	14.3	0.10	17.7
2011-03-22 7:30	0.11	9.4	0.07	15.2	0.10	13.8	0.07	10.7	0.14	14.4	0.11	17.8
2011-03-22 7:45	0.07	9.4	0.10	15.3	0.07	13.8	0.06	10.7	0.14	14.3	0.10	17.7
2011-03-22 8:00	0.08	9.3	0.10	15.1	0.08	13.8	0.05	10.7	0.13	14.3	0.10	18.0
2011-03-22 8:15	0.08	9.3	0.06	15.0	0.06	13.7	0.06	10.8	0.14	14.4	0.11	17.6
2011-03-22 8:30	0.06	9.2	0.05	15.1	0.06	13.6	0.06	10.7	0.14	14.4	0.10	17.7
2011-03-22 8:45	0.05	9.4	0.06	15.1	0.05	13.7	0.06	10.7	0.14	14.3	0.10	17.8
2011-03-22 9:00	0.05	9.3	0.04	15.0	0.04	13.7	0.03	10.9	0.13	14.2	0.10	18.0
2011-03-22 9:15	0.06	9.5	0.05	15.0	0.04	13.7	0.03	10.7	0.11	14.4	0.13	17.8
2011-03-22 9:30	0.04	9.4	0.04	15.3	0.05	13.9	0.04	10.7	0.16	14.5	0.11	17.7
2011-03-22 9:45	0.04	9.5	0.04	15.1	0.04	13.7	0.03	10.8	0.15	14.5	0.08	17.6
2011-03-22 10:00	0.06	9.5	0.02	15.1	0.03	13.8	0.03	10.7	0.16	14.4	0.10	17.6
2011-03-22 10:15	0.07	9.5	0.04	15.1	0.04	13.8	0.02	10.8	0.16	14.4	0.10	17.6
2011-03-22 10:30	0.06	9.5	0.03	15.0	0.03	13.7	0.07	10.7	0.14	14.5	0.09	17.7
2011-03-22 10:45	0.13	9.7	0.03	15.2	0.05	13.7	0.06	10.7	0.13	14.4	0.07	17.5
2011-03-22 11:00	0.12	9.5	0.02	15.0	0.08	13.9	0.07	10.5	0.15	14.5	0.10	17.4
2011-03-22 11:15	0.13	9.4	0.02	15.1	0.08	13.9	0.03	10.7	0.14	14.4	0.08	17.4
2011-03-22 11:30	0.12	9.6	0.00	15.1	0.13	13.8	0.02	10.6	0.10	14.3	0.10	17.5
2011-03-22 11:45	0.13	9.5	0.02	15.1	0.13	13.8	0.00	10.6	0.12	14.3	0.10	17.6
2011-03-22 12:00	0.13	9.6	0.01	15.0	0.12	13.7	-0.01	10.8	0.11	14.2	0.09	17.4
2011-03-22 12:15	0.14	9.7	0.02	15.1	0.11	13.8	0.02	10.8	0.10	14.3	0.11	17.6
2011-03-22 12:30	0.12	9.5	0.02	15.0	0.10	14.2	0.01	10.7	0.11	14.5	0.11	17.4
2011-03-22 12:45	0.13	9.6	0.01	15.1	0.12	14.1	0.04	10.7	0.08	14.1	0.10	17.6
2011-03-22 13:00	0.12	9.8	0.01	15.1	0.12	14.4	0.04	10.8	0.11	14.4	0.07	17.2
2011-03-22 13:15	0.08	9.6	0.01	15.1	0.09	14.2	0.04	11.0	0.11	14.3	0.07	17.3
2011-03-22 13:30	0.05	9.7	0.04	15.2	0.08	14.1	0.02	10.9	0.10	14.2	0.07	17.4
2011-03-22 13:45	0.06	9.8	0.05	15.2	0.06	14.1	0.03	10.9	0.11	14.3	0.07	17.7
2011-03-22 14:00	0.04	9.4	0.05	15.1	0.07	13.9	0.02	10.8	0.10	14.5	0.09	18.2
2011-03-22 14:15	0.05	9.5	0.05	15.2	0.05	13.8	0.01	10.7	0.12	14.4	0.08	18.0
2011-03-22 14:30	0.04	9.4	0.03	15.2	0.04	13.9	0.02	10.8	0.10	14.3	0.05	17.8
2011-03-22 14:45	0.04	9.4	0.04	15.2	0.04	13.7	0.02	10.9	0.12	14.4	0.04	17.7
2011-03-22 15:00	0.07	9.5	0.04	15.0	0.06	13.6	0.05	10.7	0.10	14.3	0.04	17.4
2011-03-22 15:15	0.06	9.4	0.02	15.1	0.05	13.9	0.02	10.7	0.07	14.0	0.03	17.3
2011-03-22 15:30	0.06	9.3	0.02	14.9	0.06	13.8	0.03	10.6	0.10	14.3	0.02	17.6
2011-03-22 15:45	0.08	9.5	0.03	15.1	0.05	13.7	0.04	10.8	0.06	14.3	0.03	17.8
2011-03-22 16:00	0.07	9.5	0.02	15.2	0.06	13.8	0.03	11.2	0.06	14.3	0.04	17.6
2011-03-22 16:15	0.07	9.4	0.04	14.9	0.06	13.8	0.05	13.0	0.07	14.2	0.04	17.4
2011-03-22 16:30	0.09	9.5	0.03	15.2	0.08	13.8	0.03	13.8	0.06	14.2	0.01	17.2
2011-03-22 16:45	0.09	9.6	0.05	15.4	0.06	13.8	0.04	13.5	0.10	14.2	0.04	17.1
2011-03-22 17:00	0.08	9.6	0.05	15.4	0.07	13.9	0.02	13.0	0.07	14.4	0.02	17.4
2011-03-22 17:15	0.08	9.7	0.06	15.2	0.08	13.7	0.05	12.5	0.03	14.4	0.03	17.6
2011-03-22 17:30	0.08	9.7	0.05	15.1	0.07	13.9	0.03	12.0	0.05	14.3	0.03	17.4
2011-03-22 17:45	0.07	9.7	0.05	15.2	0.08	13.8	0.05	11.7	0.07	14.8	0.03	18.6
2011-03-22 18:00	0.08	9.5	0.05	15.4	0.07	13.8	0.06	11.4	0.05	14.8	0.05	17.9
2011-03-22 18:15	0.08	9.6	0.05	15.5	0.09	13.8	0.05	11.1	0.03	14.9	0.05	17.7
2011-03-22 18:30	0.08	9.7	0.04	15.2	0.08	13.7	0.07	10.9	0.03	14.6	0.05	17.4
2011-03-22 18:45	0.08	9.7	0.04	15.3	0.08	13.6	0.06	10.9	0.03	14.7	0.06	17.9

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-22 19:00	0.10	9.5	0.04	15.2	0.08	13.7	0.06	10.9	0.05	14.7	0.07	17.9
2011-03-22 19:15	0.09	9.6	0.06	15.2	0.07	13.7	0.06	11.0	0.03	14.3	0.05	17.8
2011-03-22 19:30	0.10	9.7	0.03	15.2	0.06	13.9	0.07	10.6	0.05	14.1	0.06	17.9
2011-03-22 19:45	0.10	9.6	0.04	15.1	0.08	13.8	0.07	10.7	0.04	14.2	0.03	17.7
2011-03-22 20:00	0.09	9.8	0.06	15.5	0.08	13.8	0.09	11.0	0.04	14.2	0.04	17.7
2011-03-22 20:15	0.10	9.6	0.06	15.3	0.06	13.7	0.07	10.8	0.03	14.3	0.04	17.7
2011-03-22 20:30	0.09	9.4	0.04	15.3	0.07	13.7	0.07	10.8	0.06	14.5	0.05	17.5
2011-03-22 20:45	0.09	9.4	0.04	15.2	0.09	13.8	0.08	10.8	0.08	14.9	0.04	17.7
2011-03-22 21:00	0.10	9.5			0.07	13.9	0.08	10.9	0.07	14.6	0.05	18.0
2011-03-22 21:15	0.11	9.5	0.03	15.3	0.05	13.7	0.07	10.7	0.09	14.6	0.06	17.9
2011-03-22 21:30	0.07	9.5	0.04	15.3	0.06	13.9	0.08	10.7	0.09	14.6	0.04	17.9
2011-03-22 21:45	0.08	9.3	0.06	15.3	0.05	13.7	0.05	10.8	0.07	14.5	0.06	17.7
2011-03-22 22:00	0.09	9.6	0.03	15.4	0.07	13.5	0.07	10.8	0.07	14.5	0.06	17.5
2011-03-22 22:15	0.10	9.5	0.04	15.4	0.07	13.8	0.08	10.7	0.09	14.5	0.03	17.3
2011-03-22 22:30	0.09	9.6	0.02	15.4	0.06	13.5	0.07	10.7	0.08	14.4	0.05	17.5
2011-03-22 22:45	0.07	9.4	0.01	15.3	0.08	13.6	0.07	10.7	0.06	14.5	0.07	17.3
2011-03-22 23:00	0.06	9.4	0.04	15.2	0.07	13.5	0.08	10.8	0.08	14.5	0.05	17.5
2011-03-22 23:15	0.06	9.3	0.04	15.2	0.05	13.7	0.08	10.8	0.08	14.4	0.05	17.3
2011-03-22 23:30	0.08	9.5	0.03	15.3	0.08	13.7	0.09	10.7	0.07	14.3	0.03	17.3
2011-03-22 23:45	0.07	9.4	0.05	15.3	0.04	13.6	0.07	10.7	0.06	14.2	0.05	17.4
2011-03-23 0:00	0.07	9.3	0.04	15.4	0.06	13.7	0.06	10.7	0.07	14.2	0.05	17.4
2011-03-23 0:15	0.06	9.4	0.02	15.0	0.04	13.6	0.04	10.8	0.08	14.5	0.05	17.0
2011-03-23 0:30	0.05	9.1	0.02	15.3	0.05	13.6	0.07	10.7	0.04	14.3	0.05	17.3
2011-03-23 0:45	0.04	9.2	0.03	15.5	0.06	13.6	0.09	10.7	0.09	14.2	0.04	17.5
2011-03-23 1:00	0.03	9.3	0.03	15.2	0.05	13.6	0.04	10.7	0.06	14.3	0.05	17.4
2011-03-23 1:15	0.05	9.2	0.03	15.0	0.06	13.6	0.08	10.6	0.06	14.0	0.05	17.2
2011-03-23 1:30	0.06	9.4	0.03	15.0	0.04	13.6	0.07	10.6	0.05	14.1	0.03	17.4
2011-03-23 1:45	0.04	9.2	0.02	15.0	0.01	13.8	0.05	10.7	0.05	14.3	0.02	17.3
2011-03-23 2:00	0.04	9.5	0.03	15.0	0.05	13.5	0.05	10.9	0.08	14.3	0.05	17.4
2011-03-23 2:15	0.03	9.3	0.04	15.1	0.03	13.8	0.04	10.5	0.05	14.1	0.03	17.4
2011-03-23 2:30	0.02	9.3	0.05	15.1	0.03	13.7	0.05	10.6	0.08	14.1	0.06	17.5
2011-03-23 2:45	0.05	9.2	0.05	15.0	0.03	13.6	0.05	10.5	0.04	14.2	0.03	17.4
2011-03-23 3:00	0.03	9.2	0.03	15.2	0.04	13.5	0.03	10.7	0.09	14.4	0.04	17.3
2011-03-23 3:15	0.03	9.2	0.03	15.1	0.01	13.6	0.05	10.5	0.07	14.2	0.06	17.3
2011-03-23 3:30	0.03	9.3	0.04	15.1	0.03	13.9	0.04	10.7	0.08	14.2	0.03	17.4
2011-03-23 3:45	0.03	9.3	0.03	15.2	0.04	13.7	0.05	10.7	0.06	14.2	0.03	17.3
2011-03-23 4:00	0.03	9.4	0.03	15.1	0.03	13.7	0.05	10.5	0.09	14.3	0.06	17.3
2011-03-23 4:15	0.03	9.3	0.04	15.1	0.05	13.7	0.01	10.5	0.06	14.2	0.03	17.2
2011-03-23 4:30	0.05	9.2	0.04	15.2	0.05	13.7	0.04	10.6	0.07	14.7	0.06	17.4
2011-03-23 4:45	0.05	9.4	0.00	14.9	0.05	13.7	0.05	10.6	0.05	14.6	0.06	17.1
2011-03-23 5:00	0.05	9.4	0.02	15.3	0.06	13.8	0.04	10.6	0.05	14.5	0.06	17.3
2011-03-23 5:15	0.06	9.4	0.03	15.0	0.05	13.7	0.05	10.6	0.06	14.6	0.06	17.1
2011-03-23 5:30	0.06	9.3	0.04	15.2	0.05	13.8	0.05	10.8	0.05	14.5	0.05	17.3
2011-03-23 5:45	0.05	9.3	0.03	15.0	0.03	13.8	0.05	10.6	0.08	14.6	0.06	17.2
2011-03-23 6:00	0.06	9.4	0.04	15.2	0.04	13.8	0.06	10.7	0.05	14.5	0.05	17.4
2011-03-23 6:15	0.05	9.4	0.03	15.1	0.04	13.6	0.05	10.5	0.06	14.1	0.04	17.2
2011-03-23 6:30	0.04	9.3	0.04	15.1	0.05	13.9	0.05	10.7	0.07	14.3	0.05	17.3
2011-03-23 6:45	0.06	9.4	0.04	15.1	0.05	13.7	0.05	10.8	0.06	14.4	0.08	17.3
2011-03-23 7:00	0.04	9.5	0.02	15.2	0.06	13.8	0.03	10.7	0.05	13.9	0.04	17.1
2011-03-23 7:15	0.05	9.4	0.04	15.2	0.04	13.6	0.03	10.6	0.06	14.2	0.04	17.1
2011-03-23 7:30	0.06	9.3	0.03	15.1	0.05	13.8	0.04	10.7	0.06	14.2	0.05	17.4
2011-03-23 7:45	0.05	9.2	0.03	15.2	0.04	13.8	0.05	10.7	0.05	14.1	0.04	17.1
2011-03-23 8:00	0.04	9.2	0.03	15.2	0.05	13.6	0.05	10.7	0.06	14.2	0.04	17.4
2011-03-23 8:15	0.05	9.3	0.03	15.2	0.05	13.8	0.05	10.6	0.04	14.1	0.04	17.3
2011-03-23 8:30	0.04	9.3	0.06	15.3	0.03	13.8	0.04	10.7	0.05	14.2	0.04	17.4
2011-03-23 8:45	0.04	9.4	0.04	15.0	0.04	13.8	0.03	10.6	0.06	14.1	0.05	17.4
2011-03-23 9:00	0.04	9.4	0.05	15.2	0.04	13.7	0.04	10.7	0.05	14.2	0.04	17.4
2011-03-23 9:15	0.04	9.4	0.04	15.2	0.06	13.6	0.04	10.8	0.06	14.2	0.05	17.4
2011-03-23 9:30	0.05	9.2	0.03	15.4	0.05	13.8	0.04	10.7	0.06	14.1	0.05	17.3
2011-03-23 9:45	0.04	9.3	0.04	15.3	0.05	13.8	0.02	10.6	0.05	14.3	0.05	17.1
2011-03-23 10:00	0.06	9.3	0.04	15.4	0.04	13.8	0.01	10.6	0.06	14.3	0.04	17.3
2011-03-23 10:15	0.04	9.4	0.03	15.3	0.06	13.9	0.03	10.5	0.08	14.5	0.05	17.3
2011-03-23 10:30	0.06	9.3	0.04	15.3	0.04	14.0	0.01	10.9	0.06	14.3	0.05	17.5
2011-03-23 10:45	0.05	9.2	0.02	15.3	0.05	13.9	0.03	10.8	0.06	14.1	0.03	17.3
2011-03-23 11:00	0.05	9.3	0.04	15.2	0.05	13.8	0.04	10.8	0.06	14.3	0.02	17.4
2011-03-23 11:15	0.03	9.4	0.04	15.5	0.04	13.8	0.03	10.6	0.08	14.4	0.04	17.3
2011-03-23 11:30	0.03	9.4	0.03	15.4	0.05	13.8	0.04	10.8	0.07	14.3	0.03	17.4
2011-03-23 11:45	0.03	9.4	0.05	15.6	0.04	13.9	0.04	10.6	0.07	14.4	0.03	17.7

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-23 12:00	0.04	9.4	0.03	15.2	0.04	13.9	0.03	10.6	0.07	14.2	0.04	17.5
2011-03-23 12:15	0.05	9.4	0.04	15.3	0.05	13.9	0.04	10.9	0.08	14.1	0.03	17.4
2011-03-23 12:30	0.06	9.4	0.03	15.1	0.05	13.8	0.04	10.7	0.08	14.2	0.04	17.5
2011-03-23 12:45	0.06	9.3	0.04	15.3	0.05	13.9	0.05	10.9	0.10	14.2	0.04	17.5
2011-03-23 13:00	0.05	9.4	0.04	15.5	0.04	13.7	0.03	10.7	0.10	14.5	0.02	17.3
2011-03-23 13:15	0.05	9.5	0.05	15.2	0.05	14.0	0.05	10.7	0.10	14.2	0.03	17.3
2011-03-23 13:30	0.06	9.4	0.04	15.5	0.06	14.1	0.06	10.9	0.09	14.3	0.03	17.2
2011-03-23 13:45	0.06	9.5	0.03	15.4	0.06	14.1	0.03	10.9	0.09	14.3	0.03	17.3
2011-03-23 14:00	0.04	9.4	0.06	15.6	0.07	13.9	0.02	10.9	0.08	14.2	0.05	17.5
2011-03-23 14:15	0.04	9.4	0.04	15.5	0.05	14.0	0.04	10.7	0.09	14.5	0.04	17.2
2011-03-23 14:30	0.07	9.7	0.03	15.5	0.05	13.9	0.04	10.8	0.09	14.5	0.05	17.4
2011-03-23 14:45	0.05	9.7	0.02	15.4	0.06	14.0	0.05	10.9	0.08	14.3	0.03	17.3
2011-03-23 15:00	0.07	9.8	0.03	15.6	0.06	14.2	0.05	10.7	0.08	14.3	0.03	17.3
2011-03-23 15:15	0.07	9.6	0.04	15.5	0.06	14.0	0.05	10.9	0.09	14.1	0.05	17.6
2011-03-23 15:30	0.07	9.8	0.06	15.6	0.06	14.2	0.04	10.9	0.07	14.3	0.03	17.4
2011-03-23 15:45	0.07	9.9	0.05	15.5	0.06	14.0	0.05	10.9	0.08	14.3	0.04	17.6
2011-03-23 16:00	0.05	9.7	0.06	15.6	0.06	14.1	0.05	11.0	0.07	14.3	0.02	17.4
2011-03-23 16:15	0.08	9.8	0.05	15.6	0.05	13.8	0.05	10.9	0.07	14.6	0.02	17.5
2011-03-23 16:30	0.04	9.8	0.06	15.6	0.03	14.1	0.06	10.9	0.07	14.6	0.01	17.3
2011-03-23 16:45	0.06	9.8	0.04	15.6	0.05	14.1	0.06	11.0	0.09	14.5	0.04	17.5
2011-03-23 17:00	0.05	9.7	0.06	15.6	0.05	14.2	0.06	10.9	0.07	14.7	0.03	17.4
2011-03-23 17:15	0.05	9.8	0.07	15.5	0.04	14.2	0.05	10.9	0.08	14.6	0.02	17.3
2011-03-23 17:30	0.05	10.0	0.04	15.7	0.06	14.2	0.04	10.8	0.06	14.6	0.03	17.8
2011-03-23 17:45	0.06	9.8	0.05	15.5	0.06	14.1	0.05	11.0	0.07	14.8	0.01	18.6
2011-03-23 18:00	0.05	9.8	0.05	15.5	0.05	14.2	0.05	11.0	0.07	14.7	0.04	17.7
2011-03-23 18:15	0.05	9.9	0.03	15.5	0.08	14.0	0.05	11.0	0.08	14.6	0.02	17.7
2011-03-23 18:30	0.06	9.8	0.06	15.3	0.05	14.1	0.05	10.9	0.07	14.7	0.04	17.8
2011-03-23 18:45	0.07	9.7	0.03	15.6	0.07	14.0	0.05	11.1	0.05	14.5	0.04	17.7
2011-03-23 19:00	0.06	9.7	0.03	15.5	0.07	14.1	0.03	10.8	0.06	14.4	0.02	17.8
2011-03-23 19:15	0.04	9.6	0.04	15.5	0.05	14.4	0.03	10.7	0.08	14.5	0.03	17.9
2011-03-23 19:30	0.05	9.7	0.04	15.6	0.05	14.1	0.03	10.8	0.05	14.2	0.03	17.9
2011-03-23 19:45	0.06	9.6	0.05	15.5	0.04	13.9	0.02	10.7	0.05	14.3	0.05	17.7
2011-03-23 20:00	0.04	9.7	0.04	15.4	0.05	13.9	0.03	10.8	0.07	14.5	0.03	17.9
2011-03-23 20:15	0.06	9.7	0.05	15.6	0.06	14.0	0.04	10.8	0.04	14.6	0.05	17.7
2011-03-23 20:30	0.05	9.7	0.05	15.4	0.07	14.1	0.04	10.9	0.04	14.4	0.05	17.9
2011-03-23 20:45	0.07	9.8	0.05	15.5	0.07	14.0	0.05	11.0	0.05	14.7	0.05	18.4
2011-03-23 21:00	0.08	10.0	0.06	15.5	0.09	13.9	0.04	10.8	0.05	14.7	0.03	18.4
2011-03-23 21:15	0.06	9.9	0.04	15.4	0.08	14.0	0.05	10.9	0.02	14.4	0.05	17.9
2011-03-23 21:30	0.05	9.8	0.04	15.2	0.07	13.9	0.05	11.0	0.05	14.8	0.03	18.0
2011-03-23 21:45	0.06	9.9	0.03	15.5	0.07	13.8	0.05	11.0	0.09	14.7	0.03	17.9
2011-03-23 22:00	0.06	9.8	0.04	15.5	0.06	13.9	0.05	10.9	0.02	14.6	0.06	17.9
2011-03-23 22:15	0.07	9.8	0.05	15.4	0.10	14.2	0.03	11.0	0.05	14.7	0.02	17.8
2011-03-23 22:30	0.06	9.7	0.03	15.5	0.06	13.8	0.04	10.8	0.08	14.6	0.05	18.0
2011-03-23 22:45	0.07	9.8	0.02	15.4	0.06	14.0	0.07	10.8	0.08	14.8	0.04	17.7
2011-03-23 23:00	0.05	9.7	0.03	15.5	0.06	13.7	0.06	10.9	0.08	14.7	0.04	17.6
2011-03-23 23:15	0.07	9.7	0.05	15.3	0.09	13.9	0.03	10.7	0.07	14.6	0.02	17.7
2011-03-23 23:30	0.06	9.6	0.04	15.4	0.06	13.6	0.04	10.8	0.06	14.3	0.04	17.8
2011-03-23 23:45	0.06	9.6	0.03	15.5	0.05	13.8	0.05	10.9	0.06	14.2	0.05	17.8
2011-03-24 0:00	0.08	9.4	0.04	15.5	0.04	13.7	0.05	10.8	0.07	14.3	0.04	17.9
2011-03-24 0:15	0.06	9.6	0.02	15.3	0.05	13.7	0.02	10.9	0.07	14.3	0.05	17.9
2011-03-24 0:30	0.08	9.6	0.04	15.2	0.06	13.9	0.05	10.7	0.10	14.5	0.03	17.8
2011-03-24 0:45	0.08	9.6	0.04	15.3	0.06	13.8	0.06	10.8	0.07	14.4	0.03	17.9
2011-03-24 1:00	0.07	9.6	0.03	15.4	0.06	13.9	0.04	10.9	0.06	14.4	0.04	17.9
2011-03-24 1:15	0.06	9.6	0.03	15.2	0.06	13.9	0.03	10.7	0.07	14.6	0.04	17.8
2011-03-24 1:30	0.06	9.7	0.01	15.3	0.04	13.8	0.05	10.9	0.06	14.4	0.05	17.8
2011-03-24 1:45	0.06	9.7	0.05	15.4	0.07	13.9	0.04	10.8	0.06	14.5	0.04	17.9
2011-03-24 2:00	0.07	9.6	0.03	15.4	0.06	13.9	0.05	10.8	0.05	14.4	0.05	17.9
2011-03-24 2:15	0.07	9.7	0.04	15.6	0.05	14.0	0.04	10.7	0.05	14.4	0.03	17.8
2011-03-24 2:30	0.07	9.7	0.03	15.4	0.06	13.8	0.04	10.8	0.09	14.4	0.02	18.0
2011-03-24 2:45	0.08	9.6	0.04	15.3	0.07	13.9	0.05	10.7	0.05	14.4	0.04	17.9
2011-03-24 3:00	0.06	9.5	0.02	15.4	0.07	14.0	0.02	10.8	0.06	14.4	0.05	17.8
2011-03-24 3:15	0.06	9.7	0.01	15.2	0.04	13.8	0.05	10.9	0.07	14.6	0.03	17.9
2011-03-24 3:30	0.08	9.8	0.04	15.2	0.06	13.9	0.04	10.7	0.06	14.4	0.02	18.0
2011-03-24 3:45	0.06	9.3	0.05	15.1	0.06	13.8	0.04	10.7	0.06	14.4	0.03	17.7
2011-03-24 4:00	0.08	9.3	0.02	15.4	0.04	13.7	0.05	11.0	0.04	14.5	0.06	17.8
2011-03-24 4:15	0.04	9.4	0.03	15.4	0.06	14.0	0.02	10.7	0.07	14.4	0.03	17.7
2011-03-24 4:30	0.04	9.5	0.04	15.1	0.06	13.9	0.05	10.9	0.04	14.4	0.05	17.8
2011-03-24 4:45	0.05	9.5	0.02	15.4	0.06	13.9	0.05	10.9	0.06	14.6	0.02	17.7

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-24 5:00	0.05	9.4	0.05	15.3	0.05	13.9	0.05	10.9	0.07	14.5	0.06	18.3
2011-03-24 5:15	0.05	9.4	0.04	15.4	0.05	13.9	0.05	10.8	0.05	14.3	0.06	17.8
2011-03-24 5:30	0.06	9.6	0.03	15.3	0.05	14.1	0.03	10.7	0.08	14.4	0.03	17.9
2011-03-24 5:45	0.05	9.5	0.03	15.3	0.05	14.0	0.04	10.9	0.06	14.4	0.04	17.8
2011-03-24 6:00	0.07	9.5	0.04	15.4	0.06	13.9	0.03	10.8	0.06	14.4	0.03	17.7
2011-03-24 6:15	0.05	9.6	0.03	15.4	0.07	14.0	0.02	10.8	0.06	14.3	0.04	17.7
2011-03-24 6:30	0.06	9.7	0.01	15.4	0.05	14.0	0.02	10.9	0.05	14.4	0.05	17.9
2011-03-24 6:45	0.06	9.7	0.03	15.4	0.04	13.8	0.03	10.9	0.05	14.1	0.04	17.9
2011-03-24 7:00	0.05	9.5	0.04	15.3	0.07	14.0	0.04	10.9	0.07	14.3	0.03	18.0
2011-03-24 7:15	0.04	9.5	0.06	15.3	0.05	13.6	0.05	10.9	0.06	14.5	0.04	18.0
2011-03-24 7:30	0.06	9.5	0.04	15.5	0.05	14.0	0.04	11.0	0.03	14.3	0.04	18.0
2011-03-24 7:45	0.05	9.5	0.02	15.4	0.05	13.9	0.03	11.0	0.05	14.4	0.05	18.1
2011-03-24 8:00	0.07	9.6	0.04	15.3	0.08	14.0	0.04	11.0	0.05	14.6	0.04	17.9
2011-03-24 8:15	0.05	9.4	0.04	15.5	0.04	14.1	0.03	10.9	0.05	14.5	0.06	17.9
2011-03-24 8:30	0.04	9.7	0.03	15.3	0.06	14.0	0.05	10.8	0.06	14.4	0.04	18.0
2011-03-24 8:45	0.06	9.7	0.05	15.3	0.04	13.9	0.04	10.9	0.06	14.5	0.03	17.9
2011-03-24 9:00	0.06	9.6	0.03	15.6	0.06	14.0	0.05	10.9	0.05	14.6	0.04	18.1
2011-03-24 9:15	0.05	9.6	0.03	15.6	0.05	14.1	0.04	10.9	0.06	14.3	0.04	18.1
2011-03-24 9:30	0.04	9.6	0.03	15.5	0.04	14.1	0.04	10.9	0.03	14.4	0.04	18.2
2011-03-24 9:45	0.04	9.7	0.03	15.6	0.05	13.9	0.04	10.9	0.05	14.6	0.06	18.1
2011-03-24 10:00	0.04	9.7	0.04	15.5	0.07	14.0	0.05	11.0	0.05	14.4	0.03	18.1
2011-03-24 10:15	0.06	9.5	0.03	15.5	0.06	14.1	0.05	10.9	0.06	14.4	0.05	18.3
2011-03-24 10:30	0.07	9.7	0.05	15.5	0.04	13.9	0.03	10.9	0.07	14.5	0.03	18.2
2011-03-24 10:45	0.05	9.6	0.04	15.5	0.04	14.0	0.03	10.9	0.05	14.6	0.05	18.4
2011-03-24 11:00	0.05	9.6	0.03	15.5	0.04	14.3	0.04	11.0	0.04	14.4	0.05	18.0
2011-03-24 11:15	0.04	9.7	0.03	15.6	0.05	14.1	0.04	10.9	0.05	14.4	0.03	18.0
2011-03-24 11:30	0.06	10.4	0.05	15.6	0.06	14.2	0.04	10.9	0.07	14.5	0.03	18.0
2011-03-24 11:45	0.07	12.6	0.03	15.4	0.05	16.6	0.06	11.4	0.07	14.6	0.03	18.1
2011-03-24 12:00	0.06	12.4	0.04	15.7	0.05	16.8	0.05	11.3	0.04	14.5	0.04	17.9
2011-03-24 12:15	0.07	11.9	0.04	16.8	0.03	16.3	0.05	11.2	0.06	14.3	0.06	18.0
2011-03-24 12:30	0.07	11.4	0.02	16.5	0.05	15.8	0.06	11.3	0.05	14.4	0.05	18.2
2011-03-24 12:45	0.05	11.0	0.04	16.2	0.05	15.5	0.01	11.2	0.07	14.6	0.02	18.1
2011-03-24 13:00	0.05	10.6	0.04	16.2	0.03	14.9	0.05	11.1	0.06	14.4	0.04	18.0
2011-03-24 13:15	0.06	10.5	0.02	16.0	0.05	14.9	0.02	10.9	0.06	14.7	0.04	18.1
2011-03-24 13:30	0.06	10.2	0.03	15.8	0.05	14.6	0.03	11.1	0.05	14.5	0.04	18.2
2011-03-24 13:45	0.05	10.0	0.05	15.8	0.05	14.4	0.03	11.1	0.05	14.3	0.03	18.3
2011-03-24 14:00	0.06	9.9	0.02	15.7	0.05	14.2	0.03	10.8	0.07	14.6	0.03	18.2
2011-03-24 14:15	0.06	9.9	0.04	15.6	0.04	14.1	0.02	11.0	0.05	14.5	0.03	18.1
2011-03-24 14:30	0.05	9.8	0.04	15.6	0.03	14.2	0.03	11.0	0.03	14.6	0.04	18.3
2011-03-24 14:45	0.04	9.8	0.05	15.8	0.05	14.3	0.03	10.9	0.03	14.5	0.04	18.1
2011-03-24 15:00	0.05	9.8	0.05	15.3	0.05	13.9	0.04	10.9	0.05	14.7	0.03	18.4
2011-03-24 15:15	0.05	9.7	0.03	15.6	0.05	14.1	0.05	11.1	0.07	14.8	0.02	18.3
2011-03-24 15:30	0.06	9.7	0.03	15.4	0.03	14.0	0.04	11.3	0.05	14.4	0.05	17.9
2011-03-24 15:45	0.03	9.7	0.04	15.6	0.04	13.9	0.04	10.9	0.05	14.3	0.05	18.1
2011-03-24 16:00	0.04	10.0	0.04	15.6	0.06	13.9	0.03	11.0	0.06	14.5	0.03	18.3
2011-03-24 16:15	0.05	9.8	0.04	15.5	0.05	14.1	0.05	11.0	0.06	14.5	0.02	18.0
2011-03-24 16:30	0.06	9.9	0.02	15.3	0.06	14.1	0.06	11.1	0.06	14.5	0.05	18.0
2011-03-24 16:45	0.03	9.8	0.02	15.3	0.05	14.1	0.05	11.1	0.06	14.5	0.04	18.3
2011-03-24 17:00	0.06	9.8	0.02	15.6	0.04	14.0	0.04	11.1	0.03	14.4	0.01	18.3
2011-03-24 17:15	0.05	9.8	0.03	15.5	0.04	14.1	0.04	11.1	0.05	14.4	0.04	18.2
2011-03-24 17:30	0.05	9.9	0.03	15.4	0.05	14.0	0.04	11.1	0.06	14.5	0.04	18.2
2011-03-24 17:45	0.04	10.0	0.04	15.7	0.05	14.1	0.04	11.1	0.03	14.5	0.04	18.2
2011-03-24 18:00	0.04	10.1	0.04	15.5	0.03	14.0	0.06	11.3	0.03	14.6	0.05	18.2
2011-03-24 18:15	0.05	10.0	0.02	15.6	0.05	14.0	0.04	11.2	0.03	14.7	0.02	18.0
2011-03-24 18:30	0.05	10.3	0.04	15.5	0.05	14.1	0.04	11.1	0.03	14.5	0.04	18.1
2011-03-24 18:45	0.06	10.1	0.00	15.6	0.04	13.9	0.06	11.3	0.07	14.8	0.04	18.2
2011-03-24 19:00	0.07	10.1	0.01	15.6	0.02	14.1	0.05	11.2	0.04	14.6	0.02	18.1
2011-03-24 19:15	0.05	10.0	0.03	15.7	0.04	13.9	0.06	11.2	0.04	14.7	0.03	18.1
2011-03-24 19:30	0.09	10.0	0.01	15.6	0.04	14.0	0.04	11.2	0.03	14.5	0.04	18.2
2011-03-24 19:45	0.08	10.1	0.03	15.7	0.04	14.3	0.06	11.2	0.03	14.5	0.01	18.1
2011-03-24 20:00	0.09	10.0	0.02	15.5	0.04	14.1	0.06	11.2	0.04	14.6	0.02	18.2
2011-03-24 20:15	0.10	10.0	0.03	15.7	0.04	14.2	0.04	11.2	0.05	14.6	0.04	18.1
2011-03-24 20:30	0.10	10.0	0.03	15.7	0.05	14.3	0.06	11.2	0.03	14.5	0.03	18.1
2011-03-24 20:45	0.08	9.9	0.03	15.6	0.05	14.2	0.08	11.2	0.05	14.5	0.01	18.3
2011-03-24 21:00	0.07	10.1	0.02	15.8	0.04	14.1	0.08	11.2	0.04	14.3	0.03	18.2
2011-03-24 21:15	0.07	10.2	0.03	15.7	0.04	14.0	0.06	11.2	0.05	14.5	0.04	18.4
2011-03-24 21:30	0.06	10.0	0.03	15.8	0.04	14.1	0.08	11.2	0.03	14.4	0.04	18.4
2011-03-24 21:45	0.05	9.8	0.04	15.8	0.05	14.0	0.08	11.3	0.04	14.6	0.02	18.3

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-24 22:00	0.06	10.2	0.03	15.7	0.05	14.1	0.08	11.2	0.06	14.6	0.02	18.3
2011-03-24 22:15	0.04	9.9	0.02	15.8	0.03	14.4	0.08	11.1	0.04	14.7	0.04	18.2
2011-03-24 22:30	0.06	10.1	0.05	16.0	0.03	14.4	0.07	11.2	0.03	14.7	0.05	18.3
2011-03-24 22:45	0.06	10.2	0.03	15.8	0.04	14.2	0.07	11.3	0.05	14.6	0.04	18.4
2011-03-24 23:00	0.07	10.4			0.05	14.1	0.05	11.3	0.05	14.7	0.03	18.3
2011-03-24 23:15	0.05	10.0	0.03	16.0	0.05	14.4	0.08	11.4	0.04	14.8	0.02	18.4
2011-03-24 23:30	0.04	10.1	0.04	15.9	0.05	14.1	0.06	11.2	0.05	14.7	0.04	18.3
2011-03-24 23:45	0.07	10.1	0.05	16.0	0.06	14.1	0.07	11.4	0.03	14.4	0.05	18.5
2011-03-25 0:00	0.07	10.1	0.02	15.9	0.06	14.2	0.07	11.3	0.05	14.4	0.03	18.4
2011-03-25 0:15	0.05	9.8	0.03	16.0	0.05	14.1	0.04	11.3	0.03	14.5	0.01	18.3
2011-03-25 0:30	0.05	9.9	0.03	15.9	0.06	14.3	0.05	11.3	0.04	14.6	0.03	18.2
2011-03-25 0:45	0.06	10.0	0.03	15.8	0.02	14.3	0.06	11.3	0.06	14.7	0.03	18.3
2011-03-25 1:00	0.07	10.5	0.02	15.9	0.05	14.3	0.05	11.4	0.02	14.6	0.03	18.2
2011-03-25 1:15	0.07	12.6	0.05	15.9	0.06	15.3	0.06	11.9	0.06	14.5	0.04	18.4
2011-03-25 1:30	0.06	12.2	0.05	15.7	0.06	15.8	0.08	12.4	0.04	14.7	0.02	18.3
2011-03-25 1:45	0.05	12.1	0.02	16.1	0.04	15.4	0.08	12.8	0.05	14.6	0.02	18.5
2011-03-25 2:00	0.08	13.1	0.04	16.5	0.06	15.6	0.06	12.5	0.06	14.5	0.04	18.4
2011-03-25 2:15	0.07	13.4	0.05	16.8	0.04	17.3	0.06	12.8	0.07	14.6	0.02	18.5
2011-03-25 2:30	0.07	12.7	0.03	20.5	0.07	17.1	0.05	12.8	0.05	14.5	0.03	18.5
2011-03-25 2:45	0.05	12.3	0.05	24.0	0.04	16.7	0.06	12.7	0.04	14.5	0.04	18.4
2011-03-25 3:00	0.08	11.8	0.04	24.6	0.05	16.7	0.06	12.2	0.04	14.5	0.02	18.3
2011-03-25 3:15	0.07	11.2	0.05	24.2	0.05	15.9	0.06	11.9	0.03	14.2	0.03	18.4
2011-03-25 3:30	0.07	11.1	0.04	22.9	0.06	15.7	0.06	11.6	0.06	14.5	0.03	18.3
2011-03-25 3:45	0.08	10.7	0.03	21.4	0.07	15.2	0.08	11.7	0.02	14.5	0.04	18.3
2011-03-25 4:00	0.08	10.5	0.02	19.9	0.06	15.0	0.06	11.3	0.03	14.4	0.03	18.3
2011-03-25 4:15	0.05	10.4	0.03	18.8	0.06	14.8	0.05	11.2	0.06	14.6	0.03	18.1
2011-03-25 4:30	0.08	10.2	0.05	18.0	0.04	14.5	0.06	11.1	0.05	14.6	0.03	18.0
2011-03-25 4:45	0.07	10.2	0.06	17.6	0.04	14.7	0.05	11.4	0.06	14.9	0.02	17.9
2011-03-25 5:00	0.08	10.1	0.02	16.8	0.05	14.6	0.08	11.2	0.06	15.4	0.03	18.2
2011-03-25 5:15	0.07	10.1	0.01	16.6	0.04	14.5	0.06	11.1	0.04	15.5	0.03	18.0
2011-03-25 5:30	0.07	10.0	0.03	16.2	0.05	14.6	0.07	11.2	0.06	15.3	0.03	18.1
2011-03-25 5:45	0.07	10.1	0.04	16.0	0.07	14.7	0.07	11.4	0.07	15.4	0.03	18.0
2011-03-25 6:00	0.06	10.2	0.02	15.9	0.05	14.4	0.07	11.1	0.05	15.3	0.03	18.1
2011-03-25 6:15	0.06	10.0	0.03	15.9	0.04	14.6	0.08	11.4	0.06	15.6	0.04	18.1
2011-03-25 6:30	0.07	10.3	0.04	16.0	0.06	14.4	0.08	11.7	0.04	15.2	0.03	18.0
2011-03-25 6:45	0.06	10.3	0.04	15.7	0.06	14.8	0.08	11.8	0.05	15.3	0.01	18.0
2011-03-25 7:00	0.07	10.6	0.03	15.8	0.06	15.2	0.09	12.0	0.06	15.2	0.03	18.2
2011-03-25 7:15	0.10	10.8	0.02	15.9	0.04	15.3	0.06	11.5	0.08	15.0	0.02	18.0
2011-03-25 7:30	0.08	11.3	0.04	16.8	0.06	15.9	0.08	11.5	0.07	15.1	0.01	18.0
2011-03-25 7:45	0.09	10.9	0.03	19.4	0.07	15.9	0.09	11.5	0.04	15.0	0.03	18.3
2011-03-25 8:00	0.08	10.8	0.02	19.1	0.08	15.2	0.08	11.5	0.04	15.0	0.04	18.2
2011-03-25 8:15	0.09	10.6	0.02	18.7	0.04	15.0	0.06	11.4	0.05	14.9	0.04	18.3
2011-03-25 8:30	0.08	10.6	0.03	18.7	0.03	15.2	0.09	11.4	0.06	14.9	0.03	18.2
2011-03-25 8:45	0.06	10.7	0.03	17.9	0.05	15.6	0.07	11.2	0.05	15.0	0.04	18.3
2011-03-25 9:00	0.06	10.8	0.04	17.3	0.05	15.5	0.06	11.3	0.07	15.0	0.03	18.6
2011-03-25 9:15	0.09	10.6	0.04	17.3	0.03	15.1	0.07	12.0	0.06	15.0	0.04	19.4
2011-03-25 9:30	0.08	10.5	0.04	17.0	0.06	15.1	0.07	12.2	0.07	15.2	0.03	19.8
2011-03-25 9:45	0.09	10.4	0.03	17.4	0.04	14.8	0.07	12.2	0.05	15.4	0.03	19.3
2011-03-25 10:00	0.06	10.2	0.04	17.5	0.04	14.7	0.07	12.3	0.07	16.0	0.05	19.1
2011-03-25 10:15	0.06	10.1	0.04	16.7	0.03	14.8	0.07	11.8	0.07	16.5	0.02	19.1
2011-03-25 10:30	0.06	10.3	0.04	16.7	0.05	14.4	0.04	11.5	0.06	16.6	0.02	19.1
2011-03-25 10:45	0.05	10.2	0.03	16.5	0.04	14.5	0.07	11.4	0.05	16.7	0.02	18.9
2011-03-25 11:00	0.05	10.2	0.04	16.4	0.04	14.6	0.07	11.4	0.04	16.1	0.04	19.0
2011-03-25 11:15	0.05	10.2	0.04	16.2	0.06	14.4	0.07	11.2	0.06	16.0	0.03	18.5
2011-03-25 11:30	0.04	10.0	0.03	16.2	0.04	14.4	0.03	11.0	0.06	15.8	0.04	18.7
2011-03-25 11:45	0.06	10.2	0.04	16.2	0.05	14.5	0.07	11.2	0.07	15.6	0.03	18.7
2011-03-25 12:00	0.06	10.2	0.05	16.0	0.05	14.3	0.06	11.3	0.07	15.3	0.05	18.8
2011-03-25 12:15	0.07	10.1	0.04	16.1	0.05	14.4	0.05	11.9	0.07	15.1	0.02	18.7
2011-03-25 12:30	0.04	10.3	0.04	16.1	0.05	14.5	0.05	12.9	0.08	15.2	0.04	18.6
2011-03-25 12:45	0.06	10.7	0.04	16.1	0.04	14.7	0.06	13.4	0.06	15.2	0.03	18.7
2011-03-25 13:00	0.07	12.3	0.04	16.0	0.04	15.7	0.05	14.1	0.04	14.9	0.05	18.8
2011-03-25 13:15	0.05	12.4	0.06	16.1	0.05	16.6	0.05	15.1	0.04	15.0	0.01	18.5
2011-03-25 13:30	0.06	12.3	0.04	15.9	0.04	16.3	0.03	15.0	0.05	14.9	0.03	18.6
2011-03-25 13:45	0.06	13.0	0.05	16.1	0.06	16.4	0.02	14.5	0.05	15.2	0.03	18.6
2011-03-25 14:00	0.07	12.9	0.05	15.7	0.06	16.3	0.01	15.0	0.06	15.1	0.05	18.9
2011-03-25 14:15	0.06	12.4	0.04	16.1	0.05	15.9	0.04	15.0	0.04	15.0	0.05	18.7
2011-03-25 14:30	0.07	12.1	0.04	15.7	0.05	15.4	0.02	14.5	0.04	14.9	0.02	19.0
2011-03-25 14:45	0.07	11.8	0.04	15.4	0.06	15.1	0.05	13.8	0.04	14.9	0.04	18.8

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-25 15:00	0.04	11.2	0.02	15.7	0.03	14.7	0.03	13.4	0.05	14.9	0.04	18.3
2011-03-25 15:15	0.03	10.9	0.02	15.6	0.03	14.5	0.02	12.9	0.03	14.8	0.03	18.4
2011-03-25 15:30	0.04	10.8	0.01	16.4	0.01	14.2	0.05	12.7	0.06	14.9	0.06	18.2
2011-03-25 15:45	0.03	10.5	0.03	16.8	0.02	14.2	0.04	12.4	0.04	15.0	0.03	18.2
2011-03-25 16:00	0.03	10.5	0.02	16.3	-0.01	13.9	0.05	12.2	0.04	15.0	0.03	18.2
2011-03-25 16:15	0.03	10.4	0.01	16.6	0.01	14.3	0.03	12.3	0.04	15.0	0.04	18.1
2011-03-25 16:30	0.01	10.1	0.00	16.7	0.01	14.0	0.04	12.4	0.07	14.9	0.01	17.9
2011-03-25 16:45	0.03	9.8	0.00	18.5	0.02	14.2	0.03	12.0	0.04	15.1	-0.07	20.2
2011-03-25 17:00	0.04	9.9	0.03	20.3	0.02	14.3	0.01	11.7	0.03	15.1	0.01	18.8
2011-03-25 17:15	0.05	10.1	0.01	22.2	0.01	14.5	0.00	12.5	0.05	15.0	0.01	17.9
2011-03-25 17:30	0.05	10.1	0.04	24.9	0.02	14.6	0.01	12.9	0.06	15.3	0.01	18.1
2011-03-25 17:45	0.04	10.0	0.04	26.2	0.01	14.7	0.01	13.4	0.03	15.5	0.00	17.9
2011-03-25 18:00	0.00	10.9	0.02	25.2	0.01	14.8	-0.01	13.4	0.07	15.6	0.01	18.2
2011-03-25 18:15	0.03	12.9	0.01	23.4	0.01	15.1	0.02	13.3	0.06	15.1	-0.01	18.6
2011-03-25 18:30	0.03	12.8	0.02	21.9	-0.01	15.4	-0.01	13.3	0.05	15.0	-0.01	20.0
2011-03-25 18:45	0.02	12.4	0.02	21.1	-0.01	15.0	-0.01	13.0	0.03	15.1	-0.03	21.4
2011-03-25 19:00	0.04	12.0	0.00	20.1	0.00	14.7	0.01	12.5	0.02	15.0	0.00	22.4
2011-03-25 19:15	0.00	11.2	0.02	19.0	0.00	14.4	0.02	12.0	0.04	15.9	-0.02	23.4
2011-03-25 19:30	0.01	11.1	0.03	17.9	0.02	14.2	0.00	11.7	0.00	16.0	0.01	23.6
2011-03-25 19:45	0.00	10.9	0.01	17.0	-0.02	14.3	0.00	11.6	0.02	16.7	-0.01	22.9
2011-03-25 20:00	0.01	10.5	0.00	16.6	0.00	14.1	-0.01	11.4	0.02	17.4	-0.01	22.3
2011-03-25 20:15	0.00	10.2	0.02	16.3	0.01	14.1	0.00	11.2	0.01	18.3	-0.01	21.4
2011-03-25 20:30	-0.01	10.0	-0.02	16.1	0.01	14.0	0.01	11.2	0.02	19.0	0.02	20.8
2011-03-25 20:45	0.00	9.9	0.00	16.1	0.01	14.0	0.00	10.9	0.03	18.5	-0.02	19.9
2011-03-25 21:00	0.02	9.8	0.00	16.1	-0.02	13.9	0.00	11.1	0.01	17.6	0.00	19.4
2011-03-25 21:15	0.00	9.7	0.01	16.2	0.00	13.7	0.01	10.9	0.03	17.1	0.01	18.9
2011-03-25 21:30	0.00	9.6	0.00	16.1	-0.01	13.9	0.01	10.9	0.01	16.7	-0.02	18.4
2011-03-25 21:45	0.01	9.6	-0.02	15.7	0.01	13.7	0.00	10.9	0.00	16.6	-0.02	18.3
2011-03-25 22:00	0.02	9.8	0.00	15.6	0.01	13.9	0.00	11.0	0.01	16.0	0.00	18.0
2011-03-25 22:15	0.02	9.8	-0.01	15.4	0.01	14.0	0.00	10.9	0.01	15.5	0.00	17.8
2011-03-25 22:30	0.00	9.9	-0.01	15.5	0.00	13.9	0.00	10.9	0.00	15.3	0.00	18.0
2011-03-25 22:45	0.01	9.8	0.01	15.2	0.00	13.6	-0.02	10.8	0.02	15.2	0.00	17.8
2011-03-25 23:00	0.01	9.8	0.00	15.2	0.00	13.8	0.01	10.9	-0.02	14.9	0.02	17.7
2011-03-25 23:15	0.00	10.1	0.00	15.1	-0.01	13.8	-0.01	10.7	0.01	14.8	-0.01	17.9
2011-03-25 23:30	0.00	10.9	-0.01	15.1	0.01	13.9	-0.01	10.9	-0.02	14.5	0.00	17.9
2011-03-25 23:45	0.00	10.9	-0.01	15.2	-0.01	14.6	0.00	11.0	-0.01	14.5	-0.02	17.8
2011-03-26 0:00	0.00	10.6	0.00	15.3	0.01	14.8	0.01	11.2	-0.01	14.7	0.00	17.8
2011-03-26 0:15	0.01	10.4	-0.01	15.1	0.01	15.0	-0.01	11.4	0.01	14.7	0.00	17.9
2011-03-26 0:30	0.00	10.3	0.00	15.2	-0.01	15.0	0.01	11.5	0.03	14.6	0.01	18.2
2011-03-26 0:45	0.01	10.2	-0.02	15.2	-0.01	15.1	0.00	11.3	-0.01	14.5	0.01	18.2
2011-03-26 1:00	-0.02	9.9	-0.01	15.2	0.00	14.7	-0.02	11.3	0.00	14.7	0.02	18.1
2011-03-26 1:15	0.02	9.9	0.00	15.3	-0.01	14.7	0.00	11.1	-0.01	14.5	-0.01	18.2
2011-03-26 1:30	0.01	9.6	0.01	15.4	0.01	14.3	0.01	11.1	0.02	14.5	0.02	18.0
2011-03-26 1:45	0.01	9.8	-0.01	15.3	-0.01	14.4	-0.01	10.9	0.03	14.8	0.00	18.0
2011-03-26 2:00	-0.01	9.7	0.01	15.3	0.00	13.9	-0.02	10.9	0.01	14.5	0.00	17.9
2011-03-26 2:15	0.00	9.6	0.01	15.2	0.02	14.1	0.00	10.9	0.01	14.5	0.02	17.9
2011-03-26 2:30	0.01	9.6	0.02	15.4	-0.01	13.9	0.00	10.9	-0.01	14.4	-0.01	18.0
2011-03-26 2:45	-0.01	9.5	0.00	15.3	0.01	13.9	0.00	10.9	0.01	14.5	-0.01	18.0
2011-03-26 3:00	-0.01	9.6	-0.01	15.2	0.01	13.8	0.01	10.8	0.03	14.8	-0.01	17.8
2011-03-26 3:15	0.02	9.6	0.00	15.4	0.00	13.9	0.02	10.8	0.02	14.7	0.00	17.8
2011-03-26 3:30	-0.01	9.6	-0.02	15.3	0.01	14.0	0.00	10.7	0.00	14.6	0.00	17.9
2011-03-26 3:45	-0.01	9.6	-0.01	14.9	0.01	14.0	0.01	10.8	0.01	14.4	-0.01	17.7
2011-03-26 4:00	0.00	9.4	0.01	15.2	-0.02	14.0	0.00	10.8	0.01	14.6	-0.01	17.6
2011-03-26 4:15	-0.03	9.5	0.02	15.3	-0.02	13.8	-0.02	10.9	0.02	14.5	0.00	17.7
2011-03-26 4:30	0.01	9.4	0.03	15.3	0.02	14.1	-0.01	10.9	0.01	14.4	-0.01	17.7
2011-03-26 4:45	-0.01	9.6	0.00	15.1	0.01	13.9	-0.01	10.8	0.00	14.4	0.02	17.9
2011-03-26 5:00	-0.02	9.4	0.01	14.9	0.00	13.9	0.00	10.7	0.01	14.5	0.00	18.0
2011-03-26 5:15	0.00	9.5	-0.01	15.2	0.02	13.9	0.00	10.8	0.00	14.5	0.00	18.1
2011-03-26 5:30	0.01	9.4	-0.03	15.2	0.01	14.0	0.02	10.9	0.00	14.4	0.01	18.0
2011-03-26 5:45	0.00	9.5	0.00	15.2	0.01	13.8	-0.01	10.7	0.02	14.4	-0.01	18.0
2011-03-26 6:00	0.01	9.6	-0.02	15.2	0.01	14.0	-0.02	10.9	0.00	14.4	0.00	17.7
2011-03-26 6:15	-0.01	9.4	0.01	15.5	0.01	13.9	-0.01	10.8	-0.01	14.2	0.02	17.8
2011-03-26 6:30	0.01	9.6	0.00	15.2	0.00	14.0	0.01	10.8	0.01	14.4	0.00	17.9
2011-03-26 6:45	0.00	9.4	-0.01	15.1	-0.01	13.9	-0.01	10.8	0.02	14.3	0.00	18.0
2011-03-26 7:00	0.01	9.5	0.00	15.6	0.01	14.0	-0.02	10.8	-0.01	14.3	-0.02	19.1
2011-03-26 7:15	-0.02	9.4	0.01	15.5	0.02	13.9	-0.02	10.9	0.00	14.5	0.01	20.3
2011-03-26 7:30	-0.01	9.6	0.01	15.5	0.01	13.9	-0.01	11.0	0.01	14.4	-0.01	20.0
2011-03-26 7:45	0.00	9.5	0.00	15.4	0.00	14.0	0.00	10.9	0.01	14.5	0.00	19.8

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-26 8:00	0.00	9.5	-0.01	15.3	0.00	14.0	0.00	10.7	0.00	14.3	0.02	19.3
2011-03-26 8:15	-0.02	9.6	0.00	15.3	0.00	14.1	-0.01	10.9	-0.02	14.2	0.00	18.8
2011-03-26 8:30	0.00	9.5	-0.02	15.2	-0.02	14.0	0.00	11.0	0.01	14.5	-0.01	18.6
2011-03-26 8:45	-0.01	9.6	0.02	15.4	0.01	13.9	0.00	10.7	0.02	14.5	0.01	18.5
2011-03-26 9:00	0.01	9.6	0.01	15.5	-0.02	14.0	-0.01	11.1	0.00	14.3	0.00	18.1
2011-03-26 9:15	0.00	9.4	-0.01	15.4	-0.01	13.8	0.01	10.9	-0.01	14.5	-0.03	18.0
2011-03-26 9:30	0.01	9.6	0.00	15.2	-0.02	14.0	-0.01	10.9	0.01	14.5	0.00	18.0
2011-03-26 9:45	0.00	9.5	-0.01	15.2	0.00	13.9	-0.01	10.7	0.01	14.4	0.00	17.9
2011-03-26 10:00	0.00	9.6	-0.01	15.4	0.00	13.9	0.01	11.0	0.01	14.5	0.01	17.9
2011-03-26 10:15	0.01	9.4	-0.01	15.3	0.01	13.9	0.01	10.8	0.00	14.5	0.02	17.7
2011-03-26 10:30	0.02	9.6	0.01	15.6	-0.01	14.2	0.02	10.7	-0.01	14.4	0.00	17.8
2011-03-26 10:45	-0.01	9.5	-0.01	15.3	-0.01	14.0	-0.02	10.9	-0.02	14.4	0.00	17.9
2011-03-26 11:00	0.00	9.5	-0.02	15.1	0.02	14.0	0.01	10.8	0.00	14.5	0.00	17.8
2011-03-26 11:15	0.01	9.7	0.00	15.3	-0.01	14.0	-0.01	10.7	-0.01	14.4	0.00	17.9
2011-03-26 11:30	0.01	9.5	-0.01	15.3	-0.01	14.2	0.00	10.9	-0.03	14.5	0.02	17.7
2011-03-26 11:45	0.01	9.6	0.01	15.6	0.01	14.1	-0.01	10.8	0.00	14.3	-0.01	17.8
2011-03-26 12:00	0.01	9.8	0.01	15.3	-0.01	14.1	-0.01	10.9	0.02	14.5	-0.01	17.9
2011-03-26 12:15	0.01	9.7	0.00	15.2	0.01	14.2	-0.01	10.8	0.01	14.5	-0.01	17.9
2011-03-26 12:30	0.01	9.7	0.00	15.2	0.00	13.7	0.00	10.9	-0.02	14.5	0.01	18.1
2011-03-26 12:45	0.00	9.7	0.02	15.5	-0.01	14.0	0.00	10.9	-0.02	14.6	0.01	17.9
2011-03-26 13:00	0.00	9.6	0.00	15.4	0.01	14.2	0.01	10.9	0.00	14.4	0.00	17.9
2011-03-26 13:15	0.01	9.9	0.02	15.5	-0.01	14.0	0.02	11.0	0.02	14.5	-0.01	18.0
2011-03-26 13:30	-0.02	9.7	0.00	15.4	-0.01	14.0	0.01	11.0	-0.01	14.4	0.01	18.0
2011-03-26 13:45	0.00	9.7	0.00	15.5	0.00	13.9	0.00	11.1	0.01	14.6	0.01	18.0
2011-03-26 14:00	-0.01	9.7	0.00	15.5	0.01	14.2	0.01	10.8	0.00	14.5	0.00	18.0
2011-03-26 14:15	0.01	9.6	0.00	15.5	0.03	14.1	0.00	10.9	0.00	14.3	-0.01	17.9
2011-03-26 14:30	0.03	9.6	0.01	15.6	0.00	14.1	0.01	11.2	0.00	14.3	-0.02	18.1
2011-03-26 14:45	-0.01	9.7	0.01	15.6	0.00	14.0	0.01	10.9	0.01	14.4	0.01	18.1
2011-03-26 15:00	0.01	9.6	0.01	15.7	0.01	14.2	0.00	10.8	0.00	14.5	0.03	18.1
2011-03-26 15:15	0.02	9.7	0.02	15.2	0.02	14.2	0.01	10.9	-0.03	14.4	0.01	18.2
2011-03-26 15:30	0.00	9.6	0.01	15.6	0.01	14.3	0.00	10.8	-0.01	14.6	0.01	18.1
2011-03-26 15:45	0.01	9.7	0.01	15.8	0.02	14.4	-0.01	11.0	0.00	14.6	0.01	18.2
2011-03-26 16:00	-0.01	9.8	-0.01	15.6	0.02	14.4	-0.02	10.8	-0.02	14.2	0.01	18.1
2011-03-26 16:15	0.01	9.8	-0.01	15.8	-0.01	14.3	0.00	11.1	-0.01	14.3	0.00	18.1
2011-03-26 16:30	0.01	10.0	0.02	15.8	0.01	14.4	0.01	11.0	0.02	14.5	0.00	18.3
2011-03-26 16:45	-0.01	9.9	0.01	15.8	0.02	14.2	0.01	11.0	0.00	14.6	0.00	18.2
2011-03-26 17:00	0.01	9.8	0.03	15.9	0.00	14.3	0.00	11.2	-0.02	14.4	0.00	18.2
2011-03-26 17:15	0.02	9.9	0.00	16.0	0.00	14.3	0.01	11.2	0.01	14.6	0.00	18.0
2011-03-26 17:30	0.01	9.9	0.02	15.9	0.02	14.3	0.01	11.0	-0.01	14.9	-0.01	18.2
2011-03-26 17:45	0.01	9.6	0.01	16.0	0.00	14.3	0.02	11.2	0.01	14.9	0.00	18.1
2011-03-26 18:00	-0.01	9.9	0.02	16.0	0.00	14.4	-0.02	11.0	0.01	15.1	0.00	18.1
2011-03-26 18:15	0.01	10.0	0.01	16.0	0.01	14.4	0.00	11.1	0.00	15.0	0.00	18.1
2011-03-26 18:30	0.01	9.9	0.01	16.0	0.01	14.3	0.01	11.0	0.00	15.0	0.00	18.2
2011-03-26 18:45	0.02	10.0	-0.01	15.9	0.01	14.1	0.01	11.0	0.00	14.9	0.01	18.3
2011-03-26 19:00	0.01	10.0	0.00	16.0	0.00	14.3	0.00	11.0	-0.02	15.1	0.00	18.3
2011-03-26 19:15	0.02	9.8	0.01	16.4	0.00	14.1	0.02	11.1	0.01	15.2	0.00	18.3
2011-03-26 19:30	0.00	10.1	0.01	16.5	0.00	14.3	0.01	11.0	-0.01	15.0	-0.02	18.2
2011-03-26 19:45	-0.01	9.9	0.03	16.4	0.01	14.3	0.00	11.0	0.01	15.0	-0.01	18.2
2011-03-26 20:00	0.02	10.0	0.00	16.1	0.02	14.1	0.01	11.0	-0.01	14.8	-0.01	18.5
2011-03-26 20:15	0.01	9.8	-0.01	15.8	0.00	14.0	-0.01	11.0	-0.02	14.9	0.00	18.1
2011-03-26 20:30	0.01	10.0	0.00	16.1	0.01	14.3	0.01	10.9	0.01	14.9	-0.02	18.4
2011-03-26 20:45	0.02	9.9	-0.01	15.9	-0.01	14.2	0.03	10.8	-0.01	15.1	0.00	18.1
2011-03-26 21:00	0.00	9.8	0.00	16.0	0.00	14.1	-0.01	10.9	0.01	15.1	0.01	18.1
2011-03-26 21:15	0.00	9.8	0.00	15.9	0.00	14.1	0.01	11.1	-0.01	15.5	0.01	18.2
2011-03-26 21:30	0.02	9.8	0.02	15.9	0.02	14.2	0.01	11.0	-0.02	15.5	-0.01	18.1
2011-03-26 21:45	0.00	9.6	0.00	15.7	0.01	14.3	0.01	11.0	0.03	15.4	0.01	18.3
2011-03-26 22:00	0.02	9.7	0.00	15.6	0.01	14.1	0.02	11.2	0.01	15.2	0.01	18.3
2011-03-26 22:15	0.02	9.8	0.00	15.7	0.02	14.1	0.00	11.0	0.02	15.3	0.00	18.2
2011-03-26 22:30	0.00	9.6	0.01	15.6	0.00	14.1	0.01	11.0	0.01	15.1	0.00	18.2
2011-03-26 22:45	0.04	9.7	0.03	15.5	0.02	14.4	0.02	11.1	0.00	14.9	0.01	18.2
2011-03-26 23:00	0.02	9.8	0.00	15.6	0.02	14.2	0.00	10.9	0.00	14.7	-0.02	18.1
2011-03-26 23:15	0.02	9.7	0.00	15.6	0.00	14.3	0.01	11.0	0.02	14.9	0.02	18.2
2011-03-26 23:30	0.01	9.6	0.01	15.5	0.03	14.1	0.02	11.0	0.01	14.6	-0.02	18.0
2011-03-26 23:45	0.02	9.7	-0.01	15.5	0.01	14.1	0.00	10.9	0.00	14.7	-0.01	18.2
2011-03-27 0:00	0.01	9.9	0.00	15.5	0.01	14.3	0.01	11.0	0.03	14.7	0.01	18.2
2011-03-27 0:15	0.03	9.8	0.02	15.6	0.04	14.0	0.00	10.8	0.02	14.9	0.01	18.3
2011-03-27 0:30	0.01	9.7	0.02	15.5	0.00	14.1	0.02	10.9	0.03	14.8	0.00	18.2
2011-03-27 0:45	0.02	9.6	-0.01	15.4	0.01	13.9	0.01	11.1	0.02	14.5	0.02	18.1

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-27 1:00	0.01	9.8			-0.01	13.9	0.00	10.9	-0.01	14.6	0.01	18.1
2011-03-27 1:15	0.02	10.1	0.02	15.4	0.01	14.1	0.01	11.0	0.02	14.9	0.01	18.2
2011-03-27 1:30	0.00	9.8	0.00	15.3	-0.01	14.0	0.01	10.9	0.01	14.9	0.01	18.0
2011-03-27 1:45	0.01	9.8	0.01	15.6	0.01	14.2	0.00	10.9	0.01	14.5	0.00	18.1
2011-03-27 2:00	0.02	9.5	0.00	15.4	0.01	14.1	0.01	11.0	0.01	14.7	0.01	18.1
2011-03-27 2:15	0.00	9.5	0.01	15.6	0.00	14.1	0.00	11.0	0.01	14.7	0.00	18.3
2011-03-27 2:30	0.01	9.8	0.02	15.5	0.01	13.9	0.01	11.0	0.02	14.5	0.02	18.0
2011-03-27 2:45	0.02	9.8	-0.01	15.5	0.01	14.1	0.01	10.9	-0.01	14.7	-0.01	18.2
2011-03-27 3:00	0.01	9.6	0.01	15.5	0.02	14.1	0.01	10.8	0.03	14.7	0.00	18.0
2011-03-27 3:15	0.01	9.4	0.00	15.5	0.02	13.9	-0.01	10.8	0.02	14.8	-0.01	18.1
2011-03-27 3:30	0.01	9.5	0.01	15.5	0.02	14.1	0.00	10.9	-0.02	14.6	0.02	18.0
2011-03-27 3:45	0.02	9.7	0.01	15.4	0.01	14.1	0.02	11.0	-0.03	14.7	0.02	18.1
2011-03-27 4:00	0.00	9.5	0.00	15.4	0.02	14.3	0.00	10.7	0.00	14.6	0.02	18.1
2011-03-27 4:15	0.00	9.5	0.01	15.5	0.00	14.1	0.01	10.7	0.04	14.7	0.01	18.0
2011-03-27 4:30	0.00	9.5	-0.01	15.5	0.01	14.0	0.01	10.8	-0.01	14.4	0.01	18.0
2011-03-27 4:45	0.00	9.5	0.01	15.4	0.01	14.3	0.01	10.8	0.00	14.7	0.01	18.1
2011-03-27 5:00	0.00	9.5	0.00	15.4	0.01	14.0	0.01	10.9	0.00	14.7	0.02	17.9
2011-03-27 5:15	0.02	9.7	0.00	15.4	-0.01	13.9	-0.02	10.6	0.03	14.9	0.01	17.9
2011-03-27 5:30	0.00	9.6	0.01	15.5	-0.01	13.9	0.01	10.7	0.02	14.7	0.02	18.1
2011-03-27 5:45	0.02	9.6	0.00	15.5	0.00	13.8	0.00	10.9	0.00	14.7	0.01	18.0
2011-03-27 6:00	0.02	9.7	0.02	15.5	0.00	13.9	0.00	10.8	0.02	14.9	0.00	17.9
2011-03-27 6:15	-0.02	9.8	0.02	15.5	-0.01	14.2	0.00	10.8	0.01	15.0	0.01	18.0
2011-03-27 6:30	0.02	9.7	0.00	15.4	0.01	14.0	0.01	10.9	0.00	14.9	0.01	17.8
2011-03-27 6:45	-0.01	9.6	0.00	15.5	0.00	13.9	0.02	10.8	0.00	14.4	0.00	17.9
2011-03-27 7:00	0.00	10.3	0.01	15.6	0.01	14.1	-0.02	10.9	0.03	14.9	0.01	18.5
2011-03-27 7:15	0.02	10.6	0.01	15.7	0.01	14.3	0.00	10.8	0.00	14.8	0.01	18.7
2011-03-27 7:30	0.00	10.3	0.01	15.9	0.00	14.4	-0.01	10.8	0.03	14.8	0.01	19.1
2011-03-27 7:45	0.01	10.2	0.00	15.6	0.02	14.2	0.00	10.8	0.00	14.7	0.01	19.6
2011-03-27 8:00	-0.01	10.2	0.00	15.6	0.01	14.4	0.01	10.8	0.00	14.7	0.00	20.0
2011-03-27 8:15	0.00	9.9	0.01	15.6	0.00	14.6	0.01	10.8	0.00	14.8	0.00	22.2
2011-03-27 8:30	0.02	9.7	0.00	15.5	-0.01	14.2	0.01	10.9	0.00	14.8	0.00	23.8
2011-03-27 8:45	0.00	9.7	-0.01	15.6	-0.01	14.1	0.00	11.0	0.00	14.9	-0.01	24.0
2011-03-27 9:00	0.01	9.7	0.00	15.4	0.00	14.0	0.00	10.9	0.02	14.8	-0.02	23.6
2011-03-27 9:15	0.02	9.4	-0.01	15.3	0.01	13.8	0.01	10.9	0.01	14.9	-0.01	23.3
2011-03-27 9:30	0.00	9.6	0.00	15.2	0.01	14.1	0.01	10.9	0.00	14.9	-0.01	23.7
2011-03-27 9:45	0.01	9.6	0.01	15.3	0.00	14.0	-0.01	11.0	0.01	14.6	0.01	23.9
2011-03-27 10:00	0.01	9.7	-0.01	15.3	0.01	13.9	0.02	11.2	-0.01	14.9	-0.02	23.6
2011-03-27 10:15	-0.01	9.7	-0.01	15.2	0.01	14.0	-0.02	10.9	0.00	14.7	-0.02	23.5
2011-03-27 10:30	0.00	9.5	-0.02	15.2	0.00	14.0	0.00	10.9	0.00	14.7	-0.01	23.0
2011-03-27 10:45	0.00	9.5	0.02	15.2	0.01	14.0	0.00	11.0	0.01	14.6	-0.02	22.1
2011-03-27 11:00	0.00	9.6	0.02	15.3	0.00	13.9	0.02	10.9	0.01	14.7	-0.01	21.2
2011-03-27 11:15	0.00	9.7	0.00	15.4	0.02	14.0	0.00	10.8	0.02	14.9	-0.01	20.0
2011-03-27 11:30	0.02	9.6	0.01	15.3	-0.01	14.0	0.01	10.9	0.02	14.7	-0.03	19.4
2011-03-27 11:45	0.00	9.5	0.00	15.1	0.01	14.1	0.00	10.9	0.01	14.7	0.02	19.0
2011-03-27 12:00	0.02	9.8	0.00	15.2	0.00	14.1	-0.01	11.0	0.00	14.7	0.02	18.7
2011-03-27 12:15	0.00	9.5	0.01	15.3	0.02	14.1	-0.01	10.8	0.00	14.7	0.01	18.2
2011-03-27 12:30	0.00	9.5	0.00	15.3	0.01	14.1	0.01	11.0	-0.01	14.7	0.00	18.2
2011-03-27 12:45	0.02	9.5	0.02	15.4	-0.01	13.9	0.02	10.9	0.00	14.5	-0.01	18.1
2011-03-27 13:00	0.01	9.7	0.00	15.4	0.00	14.1	0.00	10.9	0.02	14.6	-0.01	17.9
2011-03-27 13:15	0.00	9.6	0.03	15.3	0.00	13.9	0.00	11.0	-0.01	14.6	0.00	17.9
2011-03-27 13:30	0.00	9.6	0.02	15.2	0.02	13.9	0.01	10.9	0.03	14.6	0.00	17.9
2011-03-27 13:45	0.02	9.6	0.02	15.1	0.00	13.9	0.00	10.9	0.01	14.7	0.00	17.7
2011-03-27 14:00	0.00	9.7	0.01	15.0	0.02	14.0	-0.01	10.8	0.03	14.7	0.02	17.5
2011-03-27 14:15	0.01	9.5	0.01	15.3	0.01	14.1	0.01	11.0	0.01	14.5	0.02	17.6
2011-03-27 14:30	0.02	9.5	0.00	15.2	0.01	13.9	0.02	10.9	0.00	14.4	0.01	17.5
2011-03-27 14:45	0.02	9.7	0.00	15.1	0.03	13.7	0.00	11.0	0.03	14.5	0.02	17.5
2011-03-27 15:00	0.00	9.4	0.02	15.1	0.02	14.0	0.02	11.0	0.00	14.4	0.00	17.7
2011-03-27 15:15	0.03	9.7	0.03	15.2	0.02	13.9	0.01	11.0	0.02	14.5	0.01	17.5
2011-03-27 15:30	0.03	9.7	0.02	15.3	0.02	13.9	0.00	10.9	0.02	14.4	0.00	17.6
2011-03-27 15:45	0.02	10.1	0.03	15.3	0.03	13.9	0.01	10.9	0.02	14.3	0.01	17.7
2011-03-27 16:00	0.00	10.3	0.02	15.3	0.02	14.6	0.03	10.9	0.00	14.3	0.01	17.8
2011-03-27 16:15	0.02	10.0	0.01	15.1	0.00	14.9	0.02	10.9	0.00	14.4	0.01	17.7
2011-03-27 16:30	0.00	9.8	0.01	15.1	0.03	14.4	0.01	11.0	0.02	14.2	0.01	17.6
2011-03-27 16:45	0.03	10.0	0.02	15.5	0.02	14.3	0.00	11.0	0.02	14.5	0.03	17.6
2011-03-27 17:00	0.02	9.8	0.01	15.3	0.02	14.1	0.03	11.0	0.00	14.4	-0.01	17.6
2011-03-27 17:15	0.02	9.8	0.01	15.2	0.01	14.3	0.04	10.9	0.01	14.4	0.00	17.6
2011-03-27 17:30	0.02	9.7	0.01	15.3	0.01	14.2	0.03	11.0	0.01	14.6	0.00	17.4
2011-03-27 17:45	0.01	9.6	0.02	15.5	0.01	13.9	0.01	10.9	0.00	14.5	0.01	17.8

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-27 18:00	0.02	9.8	0.01	15.3	0.01	14.1	0.02	10.9	0.01	14.5	0.01	17.6
2011-03-27 18:15	0.04	9.7	0.00	15.2	0.02	14.1	0.02	11.1	0.02	14.6	0.02	17.8
2011-03-27 18:30	0.02	9.8	-0.01	15.4	0.03	14.1	0.01	10.7	0.03	14.5	-0.02	17.8
2011-03-27 18:45	0.01	9.7	0.02	16.0	0.01	14.1	0.01	10.9	0.03	15.2	0.00	17.6
2011-03-27 19:00	0.00	9.5	0.01	16.0	0.03	13.9	0.03	10.8	0.02	15.3	0.01	17.7
2011-03-27 19:15	0.02	9.7	0.00	15.7	0.00	14.0	0.00	10.8	0.02	15.5	0.02	17.7
2011-03-27 19:30	0.02	9.7	0.02	15.7	0.00	14.0	0.00	10.8	-0.01	15.2	0.00	17.8
2011-03-27 19:45	0.01	9.5	0.02	15.6	0.03	14.0	0.01	10.9	0.03	15.1	0.02	18.0
2011-03-27 20:00	0.02	9.6	0.01	15.4	0.02	13.9	0.01	10.8	0.00	15.0	0.01	18.1
2011-03-27 20:15	0.02	9.6	0.02	15.5	0.01	13.9	0.01	10.9	0.02	15.0	0.02	18.2
2011-03-27 20:30	0.02	9.8	-0.01	15.4	0.00	14.2	0.01	10.9	0.01	14.6	0.00	18.0
2011-03-27 20:45	0.00	9.7	0.01	15.4	0.01	14.1	0.03	10.9	0.02	14.7	0.02	18.0
2011-03-27 21:00	0.03	9.7	0.01	15.5	0.01	14.0	0.01	10.9	0.02	14.8	0.02	17.9
2011-03-27 21:15	0.01	9.7	0.01	15.5	0.00	14.0	0.02	10.8	0.00	14.5	0.00	17.9
2011-03-27 21:30	0.01	9.7	0.00	15.6	0.02	14.1	0.02	11.0	0.00	14.7	0.00	17.7
2011-03-27 21:45	0.02	9.8	0.02	15.5	0.00	14.1	0.01	10.7	0.03	14.7	0.02	17.6
2011-03-27 22:00	0.01	9.6	0.01	15.2	0.02	14.1	0.02	10.8	0.00	14.4	0.00	17.7
2011-03-27 22:15	0.01	10.0	0.00	15.4	0.01	14.1	0.01	10.9	0.00	14.4	-0.01	17.8
2011-03-27 22:30	0.01	9.7	0.01	15.4	0.01	14.1	0.01	10.9	0.02	14.7	0.00	18.0
2011-03-27 22:45	0.01	9.7	0.00	15.3	0.01	14.1	-0.01	10.9	0.01	14.7	-0.01	17.9
2011-03-27 23:00	0.02	9.7	0.01	15.5	0.01	14.0	0.02	10.8	0.02	14.5	0.02	17.9
2011-03-27 23:15	0.04	9.7	-0.02	15.3	0.02	14.0	0.02	10.9	0.01	14.7	0.01	18.1
2011-03-27 23:30	0.01	9.6	0.01	15.3	0.01	14.1	0.03	10.9	0.01	14.3	0.03	17.7
2011-03-27 23:45	0.04	9.7	0.02	15.4	0.01	14.0	0.01	11.1	-0.01	14.3	0.02	17.9
2011-03-28 0:00	0.02	9.7	0.01	15.2	0.02	14.1	0.00	10.9	0.02	14.4	0.00	17.8
2011-03-28 0:15	0.03	9.7	0.01	15.4	-0.01	14.1	0.01	10.9	-0.01	14.4	0.02	17.8
2011-03-28 0:30	0.03	9.8	0.00	15.3	0.03	14.2	0.02	11.0	-0.02	14.4	0.00	17.8
2011-03-28 0:45	0.03	9.7	0.02	15.2	0.00	14.1	0.00	10.8	0.02	14.5	0.02	17.7
2011-03-28 1:00	0.01	9.4	0.00	15.2	-0.01	13.9	0.00	11.0	0.02	14.7	0.01	17.7
2011-03-28 1:15	0.02	9.7	0.00	15.3	0.01	14.0	0.03	10.9	0.01	14.3	0.00	18.1
2011-03-28 1:30	0.02	9.7	0.00	15.3	0.00	14.1	0.01	10.9	0.01	14.5	0.02	17.7
2011-03-28 1:45	0.03	9.7	0.01	15.2	0.02	14.1	0.01	10.9	0.02	14.6	0.00	17.7
2011-03-28 2:00	0.02	9.6	0.00	15.3	0.02	14.0	-0.02	10.8	0.01	14.5	0.01	18.0
2011-03-28 2:15	0.00	9.7	0.00	15.3	-0.01	14.0	0.02	10.9	0.02	14.5	0.01	17.7
2011-03-28 2:30	0.01	9.4	0.01	15.3	0.02	14.0	0.02	10.9	0.02	14.4	0.04	17.9
2011-03-28 2:45	0.00	9.6	0.00	15.3	0.03	14.0	0.00	10.8	0.01	14.4	0.01	17.8
2011-03-28 3:00	0.00	9.6	0.00	15.1	0.01	14.0	0.00	10.7	0.05	14.5	0.00	17.8
2011-03-28 3:15	0.01	9.6	0.02	15.3	0.00	14.0	0.01	10.7	0.01	14.5	0.02	17.8
2011-03-28 3:30	0.00	9.6	0.02	15.2	0.01	14.0	0.01	10.9	0.01	14.4	0.01	17.8
2011-03-28 3:45	0.02	9.7	-0.01	15.2	-0.02	14.0	0.01	10.8	0.01	14.5	-0.01	17.9
2011-03-28 4:00	0.02	9.6	0.01	15.4	0.00	13.8	0.03	10.9	0.00	14.3	0.00	17.9
2011-03-28 4:15	-0.01	9.6	0.01	15.1	0.03	13.8	0.01	10.8	0.01	14.4	0.00	17.6
2011-03-28 4:30	0.01	9.5	0.01	15.4	0.03	14.0	0.03	10.9	0.00	14.3	0.00	17.6
2011-03-28 4:45	0.01	9.5	0.00	15.1	0.01	13.9	0.01	10.9	0.01	14.5	0.01	17.8
2011-03-28 5:00	0.03	9.5	-0.01	15.3	0.00	14.1	0.00	10.8	0.01	14.5	0.01	17.8
2011-03-28 5:15	0.01	9.5	-0.02	15.3	0.01	14.1	0.01	10.9	0.02	14.5	0.00	18.7
2011-03-28 5:30	0.01	9.5	0.01	15.4	0.02	14.0	0.01	10.9	0.01	14.6	0.00	18.8
2011-03-28 5:45	0.01	9.6	0.01	15.2	0.01	14.0	-0.01	10.8	0.01	14.4	0.03	18.6
2011-03-28 6:00	0.02	9.8	0.02	15.4	0.00	14.0	0.00	10.9	0.00	14.6	0.00	18.3
2011-03-28 6:15	0.01	9.5	0.02	15.3	0.02	14.0	0.00	10.7	-0.01	14.4	0.01	18.3
2011-03-28 6:30	0.02	9.5	0.01	15.5	0.01	14.1	0.00	10.7	0.01	14.5	0.01	18.1
2011-03-28 6:45	0.00	9.4	0.01	15.5	0.01	14.0	0.01	10.7	0.01	14.3	0.01	18.2
2011-03-28 7:00	0.00	9.4	-0.01	15.4	0.02	13.9	0.00	10.7	0.03	14.4	0.00	18.4
2011-03-28 7:15	0.01	9.5	0.01	15.4	0.00	14.1	0.00	10.6	0.00	14.4	0.02	18.4
2011-03-28 7:30	-0.01	9.3	0.00	15.3	0.01	14.0	0.01	10.7	0.03	14.4	0.01	18.3
2011-03-28 7:45	0.01	9.4	0.02	15.6	0.01	13.8	0.00	10.7	0.01	14.4	-0.01	18.0
2011-03-28 8:00	0.01	9.3	0.02	15.3	-0.01	13.9	0.00	10.6	0.01	14.3	0.01	18.0
2011-03-28 8:15	0.01	9.2	-0.01	15.3	0.03	13.9	0.00	10.6	0.01	14.4	0.03	17.9
2011-03-28 8:30	-0.01	9.3	-0.01	15.1	0.02	14.2	0.01	10.8	0.02	14.7	-0.01	18.0
2011-03-28 8:45	-0.02	9.2	0.00	15.1	0.01	13.7	0.00	10.7	0.00	14.5	0.03	17.9
2011-03-28 9:00	0.00	9.4	0.00	15.3	0.00	13.9	0.00	10.8	0.04	14.4	0.01	17.7
2011-03-28 9:15	-0.01	9.2	0.01	15.3	0.00	14.0	-0.02	10.7	0.01	14.4	0.01	17.8
2011-03-28 9:30	0.00	9.3	0.00	15.1	0.00	14.0	-0.01	10.5	0.02	14.6	0.01	17.8
2011-03-28 9:45	0.01	9.2	0.00	15.2	-0.01	13.9	0.00	10.6	0.02	14.6	0.01	17.7
2011-03-28 10:00	-0.01	9.1	0.00	15.4	0.01	13.8	0.00	10.6	0.01	14.4	0.01	17.7
2011-03-28 10:15	0.01	9.4	0.01	15.1	0.00	13.9	0.00	10.6	-0.02	14.3	0.00	17.7
2011-03-28 10:30	-0.02	9.4	0.00	15.0	0.00	14.0	0.00	10.5	0.01	14.4	0.00	17.8
2011-03-28 10:45	0.01	9.4	0.01	15.1	0.00	13.9	-0.01	10.5	0.01	14.4	0.01	17.9

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-28 11:00	0.00	9.5	0.00	15.1	0.01	14.0	0.00	10.6	0.00	14.7	0.00	17.9
2011-03-28 11:15	0.00	9.5	-0.01	15.2	-0.01	14.0	-0.02	10.8	-0.02	14.5	0.01	17.9
2011-03-28 11:30	-0.01	9.2	0.01	14.9	-0.01	14.0	-0.01	10.6	0.01	14.4	0.00	17.8
2011-03-28 11:45	0.00	9.2	-0.01	15.0	0.02	14.0	0.01	10.6	0.01	14.4	0.00	18.0
2011-03-28 12:00	0.00	9.3	0.00	15.2	0.02	13.9	0.00	10.6	0.02	14.4	0.00	17.8
2011-03-28 12:15	-0.01	9.4	-0.01	15.0	-0.01	14.0	0.00	10.6	-0.01	14.4	0.02	18.1
2011-03-28 12:30	0.00	9.4	-0.02	15.0	0.00	14.0	0.01	10.6	0.01	14.4	0.01	17.8
2011-03-28 12:45	0.01	9.6	0.00	15.0	0.01	14.1	0.02	10.8	0.01	14.4	0.01	17.9
2011-03-28 13:00	0.00	9.5	0.00	15.0	0.00	14.1	0.00	10.7	0.02	14.5	0.02	17.7
2011-03-28 13:15	0.00	9.4	0.00	15.0	-0.01	13.9	0.00	10.7	0.01	14.6	0.01	17.6
2011-03-28 13:30	0.00	9.6	0.00	15.1	-0.01	14.0	-0.02	10.7	0.00	14.4	-0.01	17.7
2011-03-28 13:45	0.00	9.4	0.00	15.1	0.00	14.1	-0.02	10.7	0.01	14.7	-0.01	17.7
2011-03-28 14:00	0.02	9.6	0.01	15.0	0.00	14.0	0.01	10.7	0.02	14.7	0.04	17.6
2011-03-28 14:15	0.01	9.5	-0.01	15.2	-0.01	13.9	-0.01	10.6	0.00	14.5	0.02	17.7
2011-03-28 14:30	0.00	9.6	-0.01	15.3	-0.02	14.1	-0.01	10.7	0.00	14.5	-0.01	17.5
2011-03-28 14:45	0.00	9.6	0.01	15.5	0.00	14.0	0.00	10.7	0.02	14.3	0.01	17.6
2011-03-28 15:00	0.02	9.4	-0.01	15.2	-0.02	14.1	0.00	10.7	0.02	14.5	0.00	17.6
2011-03-28 15:15	-0.01	9.4	-0.01	15.4	0.00	14.1	-0.01	10.8	0.02	14.7	0.00	17.4
2011-03-28 15:30	0.02	9.5	0.02	15.3	-0.01	14.0	0.01	10.9	0.00	14.9	0.00	17.5
2011-03-28 15:45	0.00	9.7	0.01	15.2	0.00	13.8	0.00	10.7	-0.01	14.2	0.00	17.7
2011-03-28 16:00	0.00	9.5	-0.01	15.1	-0.02	13.7	-0.01	10.7	-0.01	14.2	-0.09	20.7
2011-03-28 16:15	0.00	9.6	-0.02	15.1	-0.01	13.8	0.00	10.6	-0.03	13.8	-0.03	17.8
2011-03-28 16:30	-0.01	9.4	0.01	15.4	-0.02	13.9	-0.01	10.7	-0.02	14.1	-0.01	17.5
2011-03-28 16:45	0.00	9.5	-0.02	15.0	0.00	13.6	0.00	10.8	-0.01	14.0	-0.01	17.4
2011-03-28 17:00	0.00	9.6	0.00	15.1	0.01	13.7	-0.01	10.8	-0.02	14.2	0.00	17.6
2011-03-28 17:15	0.01	9.6	-0.02	15.4	-0.01	13.7	-0.02	10.7	-0.02	14.3	0.02	18.0
2011-03-28 17:30	0.01	9.6	-0.01	15.2	0.00	14.0	0.00	10.9	0.02	14.5	-0.01	17.8
2011-03-28 17:45	0.00	9.6	-0.02	15.1	0.00	14.0	0.00	10.9	-0.01	14.3	0.00	17.9
2011-03-28 18:00	0.02	9.9	0.00	15.2	0.00	13.7	0.00	10.9	0.01	14.6	-0.01	17.7
2011-03-28 18:15	0.00	9.6	0.00	15.2	-0.01	14.0	0.00	10.8	0.00	14.5	-0.03	17.6
2011-03-28 18:30	0.00	9.8	0.00	15.3	-0.01	13.7	-0.01	10.7	-0.02	14.4	0.00	17.5
2011-03-28 18:45	-0.01	9.6	-0.01	15.2	-0.01	13.8	0.00	10.8	-0.02	14.4	0.00	17.5
2011-03-28 19:00	-0.01	9.7	-0.01	15.3	0.01	13.8	0.01	10.8	-0.03	14.4	-0.01	17.8
2011-03-28 19:15	0.02	9.6	0.01	15.3	0.01	13.9	0.01	10.9	0.00	14.5	0.02	17.5
2011-03-28 19:30	0.00	9.5	0.00	15.4	0.00	13.8	0.01	10.8	-0.01	14.4	0.00	17.9
2011-03-28 19:45	0.01	9.5	0.01	15.4	0.01	13.8	0.02	10.6	0.00	14.4	0.01	18.0
2011-03-28 20:00	0.01	9.7	0.00	15.3	-0.02	13.7	0.00	10.8	0.01	14.7	-0.01	17.9
2011-03-28 20:15	0.01	9.6	0.00	15.4	0.01	13.9	0.01	10.7	0.01	14.6	0.00	18.1
2011-03-28 20:30	0.02	9.4	-0.01	15.4	0.01	13.8	0.01	10.7	-0.01	14.3	0.00	18.1
2011-03-28 20:45	0.01	9.6	-0.01	15.2	-0.01	13.8	0.01	10.8	0.00	14.4	0.01	18.1
2011-03-28 21:00	0.02	9.8	0.01	15.2	-0.01	13.7	-0.01	10.7	-0.01	14.6	0.02	18.3
2011-03-28 21:15	0.01	9.5	-0.03	15.2	0.01	13.8	0.01	10.8	0.02	14.5	0.02	17.9
2011-03-28 21:30	0.00	9.5	0.01	15.2	-0.02	13.5	0.00	10.8	0.00	14.5	0.00	17.9
2011-03-28 21:45	0.01	9.8	0.01	15.3	0.00	13.5	0.01	10.8	0.02	14.5	0.02	17.9
2011-03-28 22:00	0.02	9.8	0.01	15.2	0.00	13.4	0.01	10.7	0.02	14.7	-0.01	17.9
2011-03-28 22:15	0.01	9.7	0.00	15.2	0.02	13.7	0.01	10.8	0.02	14.7	0.01	17.8
2011-03-28 22:30	0.01	9.5	0.00	15.3	0.01	13.6	0.00	10.8	0.01	14.7	0.02	18.0
2011-03-28 22:45	-0.01	9.6	0.00	15.2	0.02	13.6	-0.01	11.0	0.00	14.8	-0.01	17.6
2011-03-28 23:00	0.01	9.4	0.00	15.4	0.00	13.7	0.00	10.7	0.00	14.2	0.00	17.9
2011-03-28 23:15	0.01	9.3	0.01	15.4	0.01	13.6	0.01	11.0	0.01	14.4	0.00	18.0
2011-03-28 23:30	0.01	9.4	-0.01	15.3	0.00	13.7	0.00	10.8	-0.01	14.5	0.00	17.7
2011-03-28 23:45	0.02	9.4	-0.01	15.4	0.01	13.7	0.01	10.8	0.00	14.6	-0.01	17.7
2011-03-29 0:00	0.01	9.4	-0.02	15.4	-0.01	13.7	0.00	10.8	-0.01	14.4	0.00	17.9
2011-03-29 0:15	0.01	9.5	0.00	15.2	0.01	13.7	-0.01	10.7	0.00	14.5	0.00	17.8
2011-03-29 0:30	0.00	9.5	0.00	15.3	0.01	13.8	0.00	10.7	0.01	14.6	0.01	17.8
2011-03-29 0:45	0.00	9.4	0.00	15.2	0.02	13.9	-0.02	10.6	-0.01	14.5	0.00	17.7
2011-03-29 1:00	0.00	9.5	0.00	15.3	0.00	13.8	0.01	10.7	0.00	14.6	-0.02	17.8
2011-03-29 1:15	0.00	9.5	-0.01	15.6	0.01	13.8	-0.01	10.6	0.00	14.5	-0.01	17.7
2011-03-29 1:30	0.01	9.3	-0.01	15.7	0.00	13.7	0.00	10.7	0.00	14.5	0.00	17.9
2011-03-29 1:45	0.00	9.3	0.00	15.5	-0.01	13.9	0.00	10.7	0.00	14.3	0.03	18.0
2011-03-29 2:00	0.01	9.5	-0.01	15.4	0.01	13.6	0.01	10.6	0.01	14.3	0.00	17.9
2011-03-29 2:15	0.01	9.4	-0.02	15.4	0.00	13.9	0.00	10.9	0.00	14.3	0.00	18.5
2011-03-29 2:30	0.00	9.6	0.02	15.5	-0.01	13.8	-0.01	11.1	0.01	14.3	0.01	18.5
2011-03-29 2:45	-0.01	9.8	0.00	15.8	0.00	14.3	0.00	11.0	0.00	14.1	-0.01	18.6
2011-03-29 3:00	0.01	9.8			0.00	14.1	0.00	11.2	0.01	14.3	0.00	18.8
2011-03-29 3:15	0.00	9.9	0.00	15.5	0.02	14.0	-0.02	11.4	0.01	14.3	0.01	19.0
2011-03-29 3:30	0.00	9.8	0.01	15.8	0.00	14.1	-0.01	11.6	-0.02	14.1	0.00	18.9
2011-03-29 3:45	0.01	9.6	0.00	15.6	0.01	14.1	-0.01	11.4	0.00	14.2	0.01	18.9

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-29 4:00	-0.01	9.9	-0.01	15.4	0.01	14.0	-0.02	11.2	-0.02	14.2	-0.01	18.4
2011-03-29 4:15	0.00	9.6	-0.02	15.3	-0.01	14.1	-0.01	11.1	-0.02	14.2	-0.01	18.5
2011-03-29 4:30	0.00	9.6	0.00	15.4	0.00	14.0	0.01	10.8	0.00	14.4	-0.01	18.0
2011-03-29 4:45	-0.01	9.6	-0.01	15.4	-0.01	14.0	-0.02	10.9	0.01	15.2	0.00	18.0
2011-03-29 5:00	-0.01	9.5	-0.01	15.5	0.00	14.1	-0.01	11.0	0.00	15.5	0.02	18.0
2011-03-29 5:15	0.02	9.5	0.00	15.8	0.02	14.1	0.00	10.8	0.00	15.6	0.01	18.5
2011-03-29 5:30	-0.02	9.5	0.00	15.9	0.00	14.1	0.00	10.7	0.02	15.2	-0.01	19.2
2011-03-29 5:45	-0.01	9.4	0.01	16.1	0.01	14.0	-0.01	10.7	0.00	15.8	0.00	19.4
2011-03-29 6:00	-0.01	9.2	0.01	16.2	-0.01	13.9	0.01	10.8	0.00	15.9	0.00	19.4
2011-03-29 6:15	-0.02	9.3	0.02	16.2	-0.01	13.8	0.00	10.8	0.00	15.4	0.00	19.3
2011-03-29 6:30	-0.01	9.4	-0.01	16.2	0.00	13.8	0.02	10.7	0.00	15.5	-0.02	19.4
2011-03-29 6:45	0.00	9.3	0.00	16.2	0.00	13.9	0.02	10.7	-0.03	15.5	0.00	19.1
2011-03-29 7:00	0.00	9.2	0.01	15.9	0.01	13.9	-0.01	10.7	-0.01	15.8	-0.01	18.5
2011-03-29 7:15	0.01	9.4	0.00	16.0	0.00	13.9	-0.02	10.9	-0.02	15.9	0.01	18.5
2011-03-29 7:30	0.00	9.4	0.00	16.1	0.00	13.8	-0.01	10.9	0.02	16.2	0.00	18.2
2011-03-29 7:45	0.00	9.5	-0.01	15.9	-0.01	14.1	-0.01	11.0	0.01	15.9	-0.01	18.2
2011-03-29 8:00	0.01	9.4	0.00	15.9	0.01	14.0	0.00	11.1	0.02	15.7	-0.01	18.1
2011-03-29 8:15	0.02	9.6	0.01	15.6	-0.01	14.3	0.01	11.1	-0.02	15.3	0.02	18.1
2011-03-29 8:30	-0.01	9.6	-0.02	15.6	0.00	14.4	0.00	11.0	0.01	15.3	0.01	18.2
2011-03-29 8:45	0.00	9.5	0.02	15.5	0.00	14.1	-0.02	10.9	0.00	15.2	-0.01	18.0
2011-03-29 9:00	0.00	9.6	-0.01	15.5	0.00	14.1	0.01	11.1	0.01	15.0	-0.01	18.1
2011-03-29 9:15	0.00	9.5	-0.02	15.2	-0.01	14.0	-0.01	10.9	-0.01	14.8	-0.02	17.9
2011-03-29 9:30	0.00	9.6	0.01	15.2	0.01	14.0	-0.01	10.8	0.02	14.7	-0.02	18.0
2011-03-29 9:45	0.00	9.4	0.00	15.3	0.00	13.9	-0.01	10.9	-0.01	14.6	-0.01	18.1
2011-03-29 10:00	-0.01	9.4	0.01	15.1	0.01	14.0	0.00	10.7	0.00	14.6	0.00	18.1
2011-03-29 10:15	0.00	9.4	0.01	15.3	0.00	13.7	-0.01	10.7	0.01	14.5	0.00	18.4
2011-03-29 10:30	-0.01	9.3	0.00	15.4	0.00	13.9	-0.01	10.8	0.00	14.5	0.01	18.5
2011-03-29 10:45	0.00	9.6	0.01	15.6	0.00	13.8	-0.01	10.8	0.00	14.2	0.03	18.6
2011-03-29 11:00	-0.02	9.2	0.00	15.5	0.01	13.9	0.01	10.7	-0.01	14.2	0.02	18.5
2011-03-29 11:15	0.01	9.5	-0.02	15.3	0.01	14.2	0.01	10.8	-0.01	14.1	0.00	18.8
2011-03-29 11:30	0.00	9.5	-0.02	15.3	-0.01	13.9	0.00	10.7	0.01	14.1	0.00	19.0
2011-03-29 11:45	0.01	9.4	0.00	15.5	-0.01	14.2	0.01	10.8	-0.01	14.1	0.00	19.1
2011-03-29 12:00	0.00	9.5	-0.02	15.4	-0.02	14.1	0.00	10.8	-0.01	14.0	0.01	19.0
2011-03-29 12:15	0.02	9.5	0.01	15.6	0.02	13.9	-0.01	10.7	0.00	14.4	-0.01	18.8
2011-03-29 12:30	-0.01	9.6	0.00	15.5	0.01	14.0	-0.02	10.7	-0.01	14.5	-0.01	18.7
2011-03-29 12:45	-0.01	9.6	0.00	15.5	-0.02	14.0	0.00	10.7	-0.01	14.5	-0.01	19.0
2011-03-29 13:00	0.01	9.7	0.00	15.8	0.00	13.8	0.01	10.7	0.00	14.0	-0.02	19.0
2011-03-29 13:15	0.01	9.6	0.01	15.6	-0.01	14.1	-0.02	10.7	0.00	14.0	-0.01	18.7
2011-03-29 13:30	-0.02	9.4	-0.01	15.5	-0.01	13.7	0.01	10.7	0.00	14.0	0.01	18.5
2011-03-29 13:45	-0.01	9.6	-0.02	15.4	0.01	13.9	-0.01	10.7	-0.02	14.0	0.01	18.6
2011-03-29 14:00	-0.03	9.4	0.00	15.4	-0.02	13.7	0.00	10.6	0.03	14.1	0.00	18.5
2011-03-29 14:15	0.00	9.4	0.01	15.7	0.00	13.9	-0.01	10.5	0.00	14.0	0.01	18.6
2011-03-29 14:30	-0.01	9.5	0.02	15.6	0.00	13.7	-0.01	10.7	-0.01	14.1	-0.02	18.2
2011-03-29 14:45	0.01	9.4	-0.03	15.5	0.01	13.6	0.01	10.7	0.00	14.1	-0.02	18.1
2011-03-29 15:00	0.00	9.5	-0.01	15.9	-0.01	13.7	-0.01	10.7	0.00	14.1	0.00	18.0
2011-03-29 15:15	-0.01	9.4	0.01	15.9	0.01	13.6	0.01	10.8	0.00	14.0	-0.01	17.5
2011-03-29 15:30	0.01	9.4	0.00	15.7	0.01	13.8	-0.02	10.7	0.00	14.0	0.00	17.7
2011-03-29 15:45	0.01	9.4	0.01	15.8	0.01	13.7	-0.02	10.7	0.00	14.0	0.00	17.9
2011-03-29 16:00	-0.02	9.4	-0.01	15.4	-0.01	13.7	0.00	10.8	-0.01	13.9	0.01	17.7
2011-03-29 16:15	0.00	9.3	0.00	15.4	0.00	13.7	-0.01	10.6	0.01	14.1	0.00	17.5
2011-03-29 16:30	0.00	9.4	-0.01	15.6	0.00	13.8	-0.02	10.5	0.01	14.0	0.01	17.6
2011-03-29 16:45	0.00	9.4	0.01	15.4	0.02	13.8	-0.01	10.5	-0.04	13.8	0.00	17.6
2011-03-29 17:00	0.02	9.4	-0.01	15.5	-0.01	13.8	-0.01	10.6	-0.01	14.1	0.02	17.6
2011-03-29 17:15	0.00	9.6	-0.01	15.3	-0.02	13.7	0.02	10.6	-0.02	13.9	-0.01	17.6
2011-03-29 17:30	0.00	9.7	-0.02	15.1	0.00	13.8	0.00	10.6	0.00	14.0	0.01	17.6
2011-03-29 17:45	-0.01	9.7	0.00	15.2	0.00	13.8	-0.02	10.6	-0.02	14.1	-0.01	17.7
2011-03-29 18:00	0.01	9.6	-0.01	14.9	-0.01	13.7	0.00	10.6	-0.01	14.2	-0.01	17.6
2011-03-29 18:15	0.01	9.7	0.00	15.2	0.01	13.9	-0.02	10.6	-0.02	14.4	0.00	17.5
2011-03-29 18:30	0.00	9.8	-0.01	15.0	-0.01	13.6	0.01	10.7	0.00	14.5	-0.01	17.6
2011-03-29 18:45	0.02	9.6	0.00	15.1	0.00	13.5	0.01	10.5	-0.02	14.5	0.00	17.5
2011-03-29 19:00	0.01	9.5	0.01	15.1	0.00	13.7	0.01	10.8	-0.02	14.4	-0.01	17.6
2011-03-29 19:15	0.00	9.3	0.00	15.1	0.01	13.7	0.01	10.6	0.01	14.2	0.00	17.6
2011-03-29 19:30	0.01	9.3	0.00	14.9	0.01	13.5	-0.01	10.7	0.01	14.1	0.00	17.6
2011-03-29 19:45	0.01	9.5	0.00	15.0	0.00	13.6	-0.01	10.7	-0.01	14.3	0.01	17.7
2011-03-29 20:00	-0.01	9.5	0.00	15.2	0.01	13.6	0.02	10.7	-0.02	14.1	0.00	17.8
2011-03-29 20:15	0.01	9.3	0.01	15.2	0.00	13.8	0.01	10.7	-0.01	14.1	0.01	17.6
2011-03-29 20:30	0.01	9.6	0.01	15.2	0.00	13.6	0.00	10.7	-0.01	14.6	-0.01	17.8
2011-03-29 20:45	0.01	9.7	-0.03	15.2	0.01	13.6	0.00	10.7	0.00	14.6	0.00	17.9

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-29 21:00	-0.01	9.6	-0.01	15.1	-0.02	13.5	0.00	10.8	0.00	14.7	0.01	17.7
2011-03-29 21:15	-0.01	9.6	0.00	15.2	-0.01	13.5	0.00	10.7	-0.01	14.7	0.01	17.7
2011-03-29 21:30	0.00	9.6	0.01	15.2	-0.01	13.5	0.01	10.7	0.01	15.0	0.01	17.5
2011-03-29 21:45	0.01	9.4	-0.03	15.1	0.00	13.6	-0.03	10.7	-0.01	15.2	-0.01	17.7
2011-03-29 22:00	0.00	9.4	0.01	15.3	-0.02	13.4	0.01	10.8	0.00	15.3	0.00	18.4
2011-03-29 22:15	0.00	9.5	-0.02	15.2	0.02	13.5	0.01	11.0	0.01	15.7	0.02	18.4
2011-03-29 22:30	0.00	9.4	0.01	15.1	0.00	13.7	0.00	11.0	0.01	15.6	0.01	18.7
2011-03-29 22:45	0.00	9.6	-0.02	15.1	0.01	13.8	0.01	11.3	0.02	15.5	0.00	18.6
2011-03-29 23:00	-0.01	9.5	0.01	15.3	0.00	13.9	0.02	11.4	0.01	15.4	0.01	18.5
2011-03-29 23:15	-0.02	9.9	-0.01	15.3	0.00	13.9	0.01	11.5	0.00	14.8	0.01	18.6
2011-03-29 23:30	-0.01	10.0	0.01	15.6	0.01	14.1	0.02	11.4	0.01	14.9	0.02	18.7
2011-03-29 23:45	-0.01	9.9	0.01	15.5	-0.01	14.2	0.01	11.7	0.00	14.7	0.01	19.3
2011-03-30 0:00	0.00	10.0	-0.01	15.7	-0.01	14.6	0.00	11.5	0.00	14.7	0.02	19.1
2011-03-30 0:15	0.01	10.0	-0.01	15.6	0.00	14.4	-0.01	11.7	0.01	14.7	0.00	19.4
2011-03-30 0:30	0.00	9.9	-0.02	15.5	0.00	14.3	-0.01	11.7	0.00	14.3	-0.01	19.4
2011-03-30 0:45	0.00	9.9	0.00	15.5	0.00	14.3	0.00	11.7	0.00	14.0	0.00	19.6
2011-03-30 1:00	0.01	9.8	0.01	15.6	0.00	14.1	-0.01	11.8	0.01	14.4	0.01	19.9
2011-03-30 1:15	-0.02	9.8	-0.02	15.7	-0.03	14.1	0.02	11.6	0.02	14.3	-0.01	20.1
2011-03-30 1:30	0.01	9.6	0.00	15.9	0.00	14.1	0.00	11.4	0.00	14.2	-0.01	20.1
2011-03-30 1:45	-0.01	9.7	-0.01	15.6	-0.02	14.4	-0.01	11.4	0.00	14.3	-0.01	20.0
2011-03-30 2:00	0.02	9.7	-0.01	15.7	-0.01	14.2	-0.02	11.4	0.00	14.2	0.00	20.0
2011-03-30 2:15	-0.01	9.8	0.00	15.5	-0.01	14.1	0.00	11.5	0.00	14.3	0.00	20.1
2011-03-30 2:30	-0.01	9.7	0.01	15.8	0.00	14.4	0.00	11.1	-0.02	14.4	0.01	19.8
2011-03-30 2:45	0.01	9.7	0.01	15.9	0.00	14.5	-0.03	11.2	0.00	14.6	0.00	20.0
2011-03-30 3:00	0.00	9.9	-0.01	16.2	-0.01	14.5	-0.02	11.2	-0.01	14.5	0.00	19.9
2011-03-30 3:15	0.00	9.8	0.00	16.0	0.02	14.6	0.00	11.3	0.01	14.4	0.00	20.3
2011-03-30 3:30	-0.01	9.9	0.01	16.0	0.01	14.6	-0.01	11.4	-0.01	14.6	-0.01	20.4
2011-03-30 3:45	0.00	9.7	-0.01	15.8	0.02	14.5	0.00	11.2	-0.01	14.4	0.00	20.3
2011-03-30 4:00	0.00	9.6	-0.01	15.7	0.00	14.2	0.01	11.1	0.01	14.5	-0.01	19.9
2011-03-30 4:15	0.00	9.6	0.00	16.0	0.00	14.1	0.00	11.1	-0.01	14.4	-0.01	19.8
2011-03-30 4:30	0.03	9.5	0.00	15.6	-0.01	14.2	-0.01	11.0	-0.01	14.3	0.00	19.7
2011-03-30 4:45	-0.01	9.5	-0.03	15.7	0.00	14.1	0.02	11.0	0.00	14.3	0.00	19.8
2011-03-30 5:00	0.01	9.5	0.00	15.5	-0.02	14.2	-0.01	11.0	0.00	14.2	0.00	20.0
2011-03-30 5:15	0.01	9.5	0.00	15.4	0.01	14.1	0.00	11.1	-0.03	14.1	0.00	20.1
2011-03-30 5:30	0.01	9.5	0.00	15.4	0.00	14.1	0.01	11.0	0.00	14.1	0.01	20.3
2011-03-30 5:45	0.02	9.5	-0.02	15.2	0.00	13.9	-0.01	10.8	0.01	14.2	-0.02	20.3
2011-03-30 6:00	-0.02	9.4	-0.01	15.1	0.02	14.0	-0.01	10.9	-0.02	14.2	-0.01	20.6
2011-03-30 6:15	0.00	9.4	-0.02	14.9	0.02	13.7	0.00	10.9	-0.01	14.2	-0.01	20.9
2011-03-30 6:30	0.00	9.3	0.02	15.0	0.02	13.8	0.01	10.9	-0.01	14.1	-0.03	21.0
2011-03-30 6:45	0.02	9.3	-0.01	15.2	0.00	13.8	0.00	10.7	-0.01	14.2	0.01	20.9
2011-03-30 7:00	0.00	9.2	0.01	15.1	0.02	13.8	0.00	10.6	0.00	14.2	-0.01	21.3
2011-03-30 7:15	0.00	9.3	0.00	15.1	-0.01	13.7	-0.01	10.7	0.01	14.3	0.00	21.2
2011-03-30 7:30	0.01	9.2	0.00	15.0	0.02	13.7	-0.01	10.9	0.00	14.2	0.00	21.3
2011-03-30 7:45	0.01	9.4	0.00	15.0	0.01	13.8	0.00	10.6	-0.02	14.1	-0.02	21.5
2011-03-30 8:00	0.01	9.4	-0.01	15.0	-0.01	13.7	-0.01	10.8	0.02	14.2	-0.02	21.6
2011-03-30 8:15	0.00	9.4	0.00	15.1	0.00	13.7	-0.01	11.2	0.01	14.3	0.00	21.9
2011-03-30 8:30	0.00	9.4	0.01	15.3	0.00	13.9	0.02	11.2	0.02	14.5	-0.01	21.7
2011-03-30 8:45	-0.01	9.7	0.00	15.2	-0.01	14.0	0.00	11.2	-0.01	14.6	0.00	21.9
2011-03-30 9:00	0.02	9.4	0.00	15.2	0.01	13.9	0.01	11.2	-0.01	14.5	0.00	22.2
2011-03-30 9:15	0.01	9.6	-0.01	15.0	0.01	13.9	0.01	11.2	-0.01	14.3	-0.02	22.6
2011-03-30 9:30	0.01	9.6	0.00	15.1	0.00	14.0	0.01	11.4	-0.01	14.0	-0.01	22.2
2011-03-30 9:45	0.00	9.6	0.01	15.1	-0.01	14.1	0.01	11.3	0.01	14.2	-0.01	22.8
2011-03-30 10:00	0.01	9.7	0.00	14.9	0.00	14.2	-0.01	11.4	0.01	14.2	-0.01	22.2
2011-03-30 10:15	0.01	9.8	0.01	15.1	-0.01	14.3	0.01	11.3	0.02	14.1	0.00	21.5
2011-03-30 10:30	0.01	9.9	0.00	15.1	-0.01	14.1	0.00	11.5	0.00	14.1	0.00	20.7
2011-03-30 10:45	0.01	9.8	0.00	14.8	0.00	14.1	0.00	11.5	0.00	14.0	0.00	20.3
2011-03-30 11:00	0.00	9.9	0.00	14.9	-0.01	14.1	0.00	11.7	0.00	14.1	-0.01	19.6
2011-03-30 11:15	0.00	9.9	0.00	14.9	-0.01	14.1	0.02	11.6	0.00	14.1	-0.01	19.2
2011-03-30 11:30	0.01	9.9	-0.01	15.0	0.01	14.3	0.01	11.8	0.00	14.0	-0.02	19.1
2011-03-30 11:45	0.00	10.2	0.00	15.1	0.01	14.1	0.01	11.7	0.01	14.1	0.01	19.3
2011-03-30 12:00	0.00	10.0	-0.01	15.0	-0.01	14.3	-0.02	11.8	-0.01	14.0	-0.03	19.9
2011-03-30 12:15	0.02	10.2	0.00	14.8	0.00	14.4	0.00	11.7	-0.01	14.2	0.00	20.0
2011-03-30 12:30	0.01	10.1	0.01	14.9	0.00	14.2	-0.01	11.8	0.01	14.3	0.00	20.2
2011-03-30 12:45	-0.01	10.1	-0.01	14.9	-0.01	14.2	0.02	11.9	0.04	14.4	0.01	20.3
2011-03-30 13:00	0.00	10.2	0.01	15.0	0.00	14.3	0.00	11.9	0.01	14.4	-0.02	20.8
2011-03-30 13:15	0.01	10.3	-0.01	15.0	-0.01	14.1	0.01	11.9	0.00	14.5	0.00	20.5
2011-03-30 13:30	0.01	10.2	-0.01	15.0	0.02	14.2	0.00	11.9	0.00	14.4	0.00	20.8
2011-03-30 13:45	0.02	10.2	0.02	15.1	0.00	14.1	0.01	11.8	0.02	14.5	0.01	20.8

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-30 14:00	0.00	10.2	0.01	15.2	0.00	14.2	0.00	11.8	0.01	14.2	0.00	21.0
2011-03-30 14:15	0.01	10.1	-0.01	15.1	0.01	14.1	0.00	11.7	-0.01	14.3	0.00	20.8
2011-03-30 14:30	0.01	9.9	0.00	15.2	0.01	14.1	0.01	11.5	0.00	14.2	0.00	20.7
2011-03-30 14:45	0.00	9.7	0.00	15.0	0.00	13.9	0.01	11.4	0.00	14.1	-0.01	20.7
2011-03-30 15:00	0.00	9.8	0.01	15.0	0.01	13.9	0.01	11.4	-0.01	13.9	-0.01	20.3
2011-03-30 15:15	0.01	9.8	0.00	15.0	0.02	13.9	0.01	11.3	-0.02	14.0	0.00	19.8
2011-03-30 15:30	0.01	9.7	0.00	14.9	0.00	13.6	0.01	11.4	0.00	14.0	0.00	19.5
2011-03-30 15:45	0.00	9.8	0.02	14.8	0.00	13.8	0.01	11.4	-0.01	13.8	-0.01	19.2
2011-03-30 16:00	0.02	9.7	0.01	14.6	0.00	13.8	0.02	11.4	0.00	14.0	0.00	18.9
2011-03-30 16:15	0.00	9.6	0.00	14.7	0.02	13.7	0.01	11.5	0.00	14.0	-0.02	18.7
2011-03-30 16:30	0.02	9.6	-0.01	14.7	0.02	13.5	0.02	11.5	0.00	13.8	0.00	18.4
2011-03-30 16:45	0.01	9.5	0.00	14.6	0.00	13.5	0.00	11.4	-0.01	13.9	-0.01	18.2
2011-03-30 17:00	0.00	9.4	0.00	14.7	0.01	13.6	0.00	11.3	0.00	13.9	0.01	18.4
2011-03-30 17:15	0.01	9.4	0.02	14.7	0.01	13.5	0.02	11.2	-0.01	14.0	-0.01	18.5
2011-03-30 17:30	0.00	9.4	0.01	14.7	0.00	13.4	0.01	11.1	-0.02	13.9	0.00	18.5
2011-03-30 17:45	0.00	9.6	0.00	14.7	0.02	13.7	0.02	11.3	0.02	14.1	0.02	18.5
2011-03-30 18:00	-0.01	9.4	0.02	14.6	0.01	13.5	0.01	11.0	0.02	14.0	0.00	18.5
2011-03-30 18:15	0.01	9.6	-0.01	14.5	0.01	13.7	0.02	11.2	0.00	14.2	0.01	18.3
2011-03-30 18:30	0.01	9.4	0.01	14.9	0.00	13.5	-0.01	10.7	0.01	14.0	0.00	18.4
2011-03-30 18:45	0.01	9.3	0.00	14.7	-0.01	13.5	0.00	11.0	-0.02	14.0	0.00	18.2
2011-03-30 19:00	0.00	9.4	0.02	14.7	0.00	13.4	0.00	11.0	-0.02	14.0	-0.01	17.7
2011-03-30 19:15	0.00	9.3	0.01	14.8	-0.01	13.6	0.01	10.9	-0.01	14.0	-0.01	17.9
2011-03-30 19:30	0.01	9.5	-0.01	14.6	0.01	13.7	0.01	11.0	-0.01	14.0	0.00	17.8
2011-03-30 19:45	0.01	9.3	0.02	14.8	-0.01	13.5	0.01	11.0	-0.02	14.1	-0.01	17.9
2011-03-30 20:00	0.02	9.5	-0.01	14.8	0.02	13.7	-0.01	10.7	0.00	14.1	-0.03	18.7
2011-03-30 20:15	0.01	9.4	0.01	14.8	0.00	13.6	0.02	10.8	0.00	13.9	-0.01	17.8
2011-03-30 20:30	0.01	9.4	0.00	14.9	0.01	13.5	0.02	10.6	0.01	14.0	0.01	17.6
2011-03-30 20:45	0.01	9.3	-0.01	14.8	0.02	13.4	0.00	10.7	-0.01	14.0	0.01	17.5
2011-03-30 21:00	0.00	9.3	0.01	14.7	0.02	13.3	0.01	10.6	0.00	14.1	0.00	17.4
2011-03-30 21:15	0.00	9.0	0.01	14.8	0.01	13.5	0.00	10.5	-0.02	14.0	-0.01	17.5
2011-03-30 21:30	0.01	8.9	-0.01	14.5	0.00	13.3	0.01	10.4	0.00	14.2	0.01	17.6
2011-03-30 21:45	0.02	9.2	-0.01	14.7	0.03	13.2	0.02	10.5	0.01	14.5	-0.04	19.4
2011-03-30 22:00	0.01	9.3	0.00	14.7	0.02	13.3	0.02	10.3	-0.01	14.5	-0.04	18.7
2011-03-30 22:15	0.01	9.2	-0.01	14.6	0.01	13.6	0.02	10.5	0.00	14.2	-0.02	18.0
2011-03-30 22:30	0.00	9.0	-0.01	14.6	0.00	13.4	0.00	10.3	-0.01	14.0	-0.02	17.7
2011-03-30 22:45	0.01	9.1	0.00	14.7	0.00	13.4	0.01	10.4	-0.01	14.1	0.00	17.4
2011-03-30 23:00	0.01	9.0	-0.02	14.8	0.01	13.3	0.02	10.3	0.00	14.1	0.02	17.7
2011-03-30 23:15	0.01	9.1	0.01	14.6	0.01	13.4	0.02	10.3	-0.01	13.9	0.02	17.6
2011-03-30 23:30	0.00	9.1	0.00	14.7	0.00	13.4	0.01	10.4	-0.01	14.1	0.00	17.7
2011-03-30 23:45	0.02	9.0	0.02	14.7	0.01	13.5	0.01	10.5	0.03	14.0	0.02	17.7
2011-03-31 0:00	0.01	9.0	0.01	14.8	0.01	13.4	0.00	10.6	-0.01	14.0	-0.01	17.7
2011-03-31 0:15	0.02	9.1	0.00	14.7	-0.01	13.4	0.02	10.4	-0.01	14.0	0.02	17.5
2011-03-31 0:30	0.00	9.0	-0.01	14.6	0.00	13.3	0.00	10.4	0.00	14.0	0.01	17.6
2011-03-31 0:45	0.00	9.0	0.02	14.8	0.01	13.6	0.00	10.5	0.02	14.0	0.00	17.6
2011-03-31 1:00	0.00	9.1	0.01	14.6	0.00	13.6	0.00	10.6	-0.01	13.9	0.00	17.3
2011-03-31 1:15	0.01	9.2	0.00	14.7	0.00	13.4	0.00	10.5	0.01	14.1	0.00	17.9
2011-03-31 1:30	0.03	9.1	0.02	14.9	0.01	13.5	0.01	10.4	0.02	14.0	0.02	17.6
2011-03-31 1:45	0.00	9.1	-0.01	14.8	0.00	13.5	0.00	10.7	-0.03	14.0	0.03	17.6
2011-03-31 2:00	-0.01	9.2	0.00	14.8	0.01	13.5	-0.01	10.4	-0.01	14.0	0.01	17.7
2011-03-31 2:15	0.00	9.0	-0.01	14.9	0.00	13.7	-0.01	10.7	0.01	14.1	0.02	17.6
2011-03-31 2:30	0.01	9.3	-0.02	15.1	0.02	13.4	0.02	10.8	-0.01	14.6	0.02	17.7
2011-03-31 2:45	0.01	9.2	0.00	15.2	0.00	13.5	0.00	10.8	0.00	14.7	0.00	17.8
2011-03-31 3:00	0.02	9.7	0.01	15.3	0.01	13.7	0.00	11.0	0.02	14.8	0.04	17.9
2011-03-31 3:15	0.00	10.3	0.01	15.0	0.00	14.2	-0.01	11.1	0.00	14.9	0.01	18.2
2011-03-31 3:30	0.01	10.4	0.01	15.1	0.01	14.4	0.00	11.5	0.04	15.1	0.00	18.3
2011-03-31 3:45	0.02	10.3	0.01	15.0	0.01	14.8	-0.01	11.4	0.01	15.0	0.02	18.3
2011-03-31 4:00	0.02	10.5	0.01	15.0	-0.01	15.1	0.01	11.7	0.02	14.9	0.01	18.3
2011-03-31 4:15	0.01	10.3	0.00	15.2	0.00	14.9	0.02	11.8	0.01	14.9	0.02	18.3
2011-03-31 4:30	0.00	10.6	-0.01	15.2	0.00	15.1	0.01	11.9	0.00	14.5	0.01	18.2
2011-03-31 4:45	0.01	10.7	0.00	15.3	0.02	15.1	0.01	11.9	-0.02	14.1	-0.01	18.2
2011-03-31 5:00	0.01	10.8			0.01	15.0	0.01	11.8	0.00	14.3	-0.01	18.1
2011-03-31 5:15	0.01	10.9	0.02	15.4	0.02	14.8	0.01	11.6	0.01	14.3	0.01	18.2
2011-03-31 5:30	0.01	11.1	0.01	15.3	-0.01	15.0	0.03	12.0	0.00	14.5	0.01	18.2
2011-03-31 5:45	-0.01	11.2	0.02	15.6	0.00	15.2	0.02	12.0	-0.01	14.2	0.02	18.4
2011-03-31 6:00	0.03	11.5	0.00	15.6	0.00	15.3	0.00	12.1	0.01	14.5	0.02	18.5
2011-03-31 6:15	0.02	11.3	0.00	15.6	0.00	15.2	0.00	12.5	0.00	14.4	0.02	18.7
2011-03-31 6:30	0.01	11.3	0.01	15.6	0.00	15.1	0.02	12.4	0.00	14.6	0.00	18.8
2011-03-31 6:45	0.01	11.2	0.00	15.6	0.03	15.1	0.02	12.5	0.01	14.4	-0.01	19.1

	Victoria		Sidney		Saanich		Metchosin		Nanaimo		Vancouver	
Date Time (UTC)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)	Xe133 (nGy/hr)	Air Kerma (nGy/hr)
2011-03-31 7:00	-0.01	11.0	0.00	15.6	0.02	14.8	0.01	12.4	0.01	14.3	0.00	19.4
2011-03-31 7:15	0.00	10.8	0.01	15.8	0.01	14.8	0.00	12.0	0.00	14.2	-0.01	19.7
2011-03-31 7:30	0.01	10.7	0.00	15.9	0.02	14.6	0.01	11.8	0.01	14.3	0.00	19.8
2011-03-31 7:45	0.00	10.3	-0.02	15.6	0.01	14.7	0.01	11.6	-0.02	14.0	-0.01	19.9
2011-03-31 8:00	0.01	10.2	0.02	15.6	0.01	14.6	0.00	11.3	0.01	14.3	0.01	19.8
2011-03-31 8:15	0.00	10.2	0.01	15.2	0.02	14.7	0.00	11.2	-0.01	13.9	0.02	19.9
2011-03-31 8:30	0.02	10.1	-0.01	15.2	0.01	14.4	0.00	11.0	0.00	14.1	0.00	19.3
2011-03-31 8:45	0.02	10.1	-0.01	15.1	0.00	14.4	0.02	11.1	-0.01	14.0	0.01	19.0
2011-03-31 9:00	0.00	10.2	0.01	15.2	0.00	14.4	0.01	11.0	0.02	14.2	0.02	18.7
2011-03-31 9:15	-0.01	9.8	-0.01	14.8	0.01	14.1	0.00	10.9	0.00	14.0	0.01	18.4
2011-03-31 9:30	0.00	9.7	0.00	14.8	0.01	14.1	0.01	10.9	-0.01	14.0	0.03	18.2
2011-03-31 9:45	0.00	9.6	-0.01	14.8	0.01	13.9	0.00	10.7	-0.02	14.2	0.00	18.0
2011-03-31 10:00	0.00	9.6	0.01	14.7	0.00	13.9	0.00	10.8	0.00	14.0	0.00	17.7
2011-03-31 10:15	-0.01	9.5	-0.02	14.8	0.00	13.9	0.00	11.0	-0.01	14.0	0.03	17.8
2011-03-31 10:30	0.01	9.6	0.01	14.8	-0.02	13.9	0.03	11.0	0.01	14.0	-0.01	17.6
2011-03-31 10:45	0.01	9.6	0.02	14.7	0.00	13.7	0.00	10.8	-0.01	13.9	0.02	17.5
2011-03-31 11:00	-0.01	9.6	-0.01	14.8	0.01	13.7	0.01	11.1	0.00	14.0	-0.01	17.5
2011-03-31 11:15	0.00	9.6	0.01	14.8	0.01	13.9	0.00	11.2	-0.01	14.1	-0.01	17.2
2011-03-31 11:30	0.02	9.7	0.03	14.7	0.00	13.9	0.02	11.2	0.02	13.9	0.00	17.5
2011-03-31 11:45	0.01	9.6	-0.01	14.7	0.01	13.9	0.01	11.0	0.00	14.0	0.02	17.4
2011-03-31 12:00	0.01	9.6	0.01	14.7	-0.01	13.7	0.03	11.0	-0.01	14.0	-0.01	17.3
2011-03-31 12:15	0.00	9.6	0.00	14.6	0.01	13.8	0.00	10.9	0.03	14.0	0.01	17.4
2011-03-31 12:30	0.00	9.4	0.01	14.7	0.00	13.5	0.01	10.7	-0.01	14.0	-0.01	17.3
2011-03-31 12:45	0.00	9.5	0.00	14.6	0.00	13.7	0.02	10.9	0.00	13.9	0.01	17.3
2011-03-31 13:00	0.01	9.5	0.00	14.5	0.00	13.6	0.01	10.8	-0.01	14.0	0.01	17.5
2011-03-31 13:15	0.00	9.3	0.02	14.7	0.00	13.7	0.01	10.9	0.00	14.0	-0.01	17.3
2011-03-31 13:30	0.01	9.6	-0.01	14.6	0.02	13.7	0.00	10.8	0.01	13.9	0.01	17.5
2011-03-31 13:45	-0.01	9.4	0.00	14.6	0.00	13.6	0.02	10.6	-0.02	14.0	0.02	17.5
2011-03-31 14:00	0.01	9.4	0.00	14.7	0.00	13.5	-0.01	10.6	0.00	14.1	0.00	17.4
2011-03-31 14:15	0.01	9.2	-0.02	14.5	0.00	13.4	0.01	10.5	0.00	13.9	0.01	17.3
2011-03-31 14:30	-0.01	9.1	0.02	14.6	-0.01	13.6	0.00	10.3	-0.01	13.9	0.00	17.4
2011-03-31 14:45	0.00	8.9	0.00	14.6	0.02	13.4	0.00	10.2	-0.01	13.8	0.01	17.6
2011-03-31 15:00	0.02	9.0	-0.01	14.5	0.00	13.3	0.00	10.2	-0.01	13.8	0.00	17.5
2011-03-31 15:15	0.00	8.9	0.00	14.5	0.01	13.4	0.01	10.3	0.00	13.8	-0.01	17.5
2011-03-31 15:30	0.00	8.9	0.01	14.5	0.00	13.4	0.00	10.3	-0.02	13.7	0.01	17.6
2011-03-31 15:45	0.03	8.9	-0.02	14.5	0.00	13.1	0.01	10.2	-0.01	14.0	-0.01	17.6
2011-03-31 16:00	0.00	8.9	-0.02	14.6	0.01	13.5	-0.01	10.2	0.01	14.0	0.00	18.4
2011-03-31 16:15	0.00	8.8	-0.01	14.7	0.00	13.4	0.00	10.3	-0.04	14.0	-0.01	17.7
2011-03-31 16:30	0.01	8.8	0.01	14.6	0.00	13.5	0.02	10.3	-0.04	14.1	0.02	17.5
2011-03-31 16:45	0.00	9.1	0.01	14.5	0.00	13.1	0.01	10.5	0.02	14.1	0.00	17.5
2011-03-31 17:00	0.00	8.9	0.01	14.7	0.00	13.2	0.01	10.5	-0.02	14.2	-0.01	17.5
2011-03-31 17:15	0.00	8.9	-0.02	14.5	0.00	13.4	0.01	10.4	-0.02	14.2	0.01	17.4
2011-03-31 17:30	-0.01	9.0	0.00	14.5	0.02	13.2	0.02	10.4	0.00	14.2	-0.01	17.4
2011-03-31 17:45	-0.01	9.1	0.00	14.6	0.01	13.3	0.01	10.3	0.00	14.4	0.02	17.4
2011-03-31 18:00	0.00	9.2	0.01	14.7	0.00	13.2	-0.02	10.3	0.01	14.2	0.00	17.4
2011-03-31 18:15	-0.01	9.1	0.00	14.8	0.01	13.2	0.00	10.3	0.02	14.3	-0.01	17.5
2011-03-31 18:30	-0.01	9.0	-0.03	14.6	-0.01	13.1	0.02	10.3	-0.02	14.2	0.01	17.3
2011-03-31 18:45	0.00	9.0	0.00	14.7	-0.01	13.1	0.01	10.2	0.01	14.2	-0.01	17.2
2011-03-31 19:00	0.00	8.9	0.00	14.5	0.00	13.2	0.00	10.3	-0.01	14.2	0.02	17.2
2011-03-31 19:15	0.01	8.9	-0.01	14.6	0.01	13.2	0.00	10.3	0.00	14.2	-0.01	17.3
2011-03-31 19:30	0.01	9.0	0.03	14.6	0.00	13.2	0.01	10.2	0.01	14.1	0.01	17.3
2011-03-31 19:45	0.01	8.9	0.00	14.6	0.02	13.2	0.01	10.2	0.01	13.8	0.00	17.4
2011-03-31 20:00	0.01	8.8	-0.01	14.8	0.01	13.1	0.00	10.2	-0.03	13.8	0.00	17.3
2011-03-31 20:15	0.00	8.9	0.00	14.8	0.00	13.3	0.01	10.3	0.00	13.9	0.01	17.5
2011-03-31 20:30	0.03	8.9	0.01	14.9	0.02	13.4	0.02	10.2	-0.01	13.8	0.01	17.4
2011-03-31 20:45	0.00	8.8	0.01	14.9	0.03	13.4	0.00	10.2	-0.02	13.8	0.02	17.4
2011-03-31 21:00	0.01	8.9	0.01	14.8	0.02	13.4	0.01	10.3	-0.01	13.9	0.00	17.8
2011-03-31 21:15	0.01	9.1	-0.01	14.9	0.03	13.2	0.04	10.4	0.00	14.1	0.00	17.5
2011-03-31 21:30	0.01	9.0	-0.02	14.7	0.01	13.1	0.02	10.2	0.00	14.3	0.00	17.6
2011-03-31 21:45	-0.01	9.1	-0.01	14.7	-0.01	13.2	0.02	10.2	0.02	14.2	0.02	17.5
2011-03-31 22:00	-0.01	9.1	0.01	14.7	0.01	13.1	0.00	10.3	0.03	14.5	0.00	17.6
2011-03-31 22:15	0.02	9.1	0.00	14.8	0.00	13.3	-0.01	10.2	0.00	14.2	0.00	17.6
2011-03-31 22:30	0.00	9.0	0.01	14.7	0.02	13.2	0.01	10.2	0.00	14.3	0.01	17.6
2011-03-31 22:45	0.01	9.0	0.00	14.9	0.01	13.3	0.02	10.1	0.01	14.1	0.00	17.6
2011-03-31 23:00	0.00	8.8	-0.03	14.7	0.01	13.2	0.02	10.3	0.00	14.2	-0.01	17.6
2011-03-31 23:15	0.01	9.0	0.02	14.8	0.02	13.4	0.01	10.3	0.00	14.3	0.00	17.5
2011-03-31 23:30	0.01	9.0	0.00	14.6	0.01	13.2	0.01	10.3	0.01	14.2	0.02	17.5
2011-03-31 23:45	-0.01	9.0	-0.01	14.6	0.00	13.3	0.02	10.3	0.00	14.2	0.03	17.4

APPENDIX 3. Radioactive aerosols observed from Fukushima in March to June 2011

Table A3.1 Station List

Site Code	City	Province	Latitude	Longitude
CAP00	Ottawa	Ontario	45.374	-75.686
CAP14	Sidney	British Columbia	48.652	-123.446
CAP15	Resolute	Nunavut	74.705	-94.969
CAP16	Yellowknife	Northwest Territories	62.476	-114.469
CAP17	St. John's	Newfoundland	47.586	-52.737
NMP01	Amherstburg	Ontario	42.126	-83.113
NMP02	Alert	Nunavut	82.499	-62.342
NMP03	Churchill	Manitoba	58.739	-94.074
NMP04	Charlottetown	P.E.I.	46.344	-63.166
NMP06	Calgary	Alberta	51.080	-114.125
NMP07	Edmonton	Alberta	53.546	-114.107
NMP08	Goose Bay	Newfoundland	53.312	-60.415
NMP09	Halifax	Nova Scotia	44.637	-63.506
NMP10	Inuvik	Northwest Territories	68.318	-133.534
NMP11	Kuujjuarapik	Quebec	55.275	-77.759
NMP12	Digby	Nova Scotia	44.615	-65.762
NMP13	Greenwood	Nova Scotia	44.985	-64.912
NMP14	Moosonee	Ontario	51.290	-80.618
NMP15	Montreal	Quebec	45.526	-73.514
NMP17	Ottawa	Ontario	45.315	-75.677
NMP18	Ottawa	Ontario	45.315	-75.677
NMP21	Toronto	Ontario	43.777	-79.271
NMP22	Quebec City	Quebec	46.791	-71.375
NMP23	Regina	Saskatchewan	50.201	-104.711
NMP25	Resolute	Nunavut	74.705	-94.969
NMP27	Vancouver	British Columbia	49.257	-122.999
NMP28	Whitehorse	Yukon Territory	60.734	-135.099
NMP29	Winnipeg	Manitoba	49.903	-97.213
NMP35	Moncton	New Brunswick	46.112	-64.679
NMP36	Port Hope	Ontario	43.943	-78.299
NMP37	Sidney	British Columbia	48.652	-123.446

Note: Stations denoted with “CAP” refer to CTBT stations, while “NMP” refer to CRMN stations

Table A3.2 Typical Detection limits

Isotope	Nominal Range of Detection Limit (Bq/m^3)
^{134}Cs	9×10^{-7} to 8×10^{-6}
^{136}Cs	1×10^{-7} to 3×10^{-6}
^{137}Cs	7×10^{-7} to 2×10^{-6}
^{131}I	7×10^{-7} to 2×10^{-6}
^{132}I	2×10^{-6} to 4×10^{-6}
^{133}I	3×10^{-6} to 1×10^{-5}
^{132}Te	3×10^{-7} to 8×10^{-6}
^{99m}Tc	6×10^{-7} to 1×10^{-5}
^{140}La	3×10^{-7} to 6×10^{-6}
^{129}Te	8×10^{-6} to 3×10^{-5}
^{129}Te	6×10^{-6} to 5×10^{-5}

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAP14	2011-03-08 16:56	85872	22327															6.04E-07	1.5E-07						
CAP14	2011-03-17 15:48	86210	22946	3.01E-05	1.4E-06	4.97E-06	5.9E-07	3.18E-05	8.7E-07	6.47E-04	1.5E-05	7.87E-05	1.8E-04	1.21E-05	1.7E-06	2.70E-04	1.5E-05					4.64E-05	5.3E-06	7.08E-05	9.0E-06
CAP14	2011-03-18 15:47	86015	22388	1.10E-04	4.6E-06	1.93E-05	1.5E-06	1.07E-04	2.2E-06	2.41E-03	5.7E-05	2.50E-04	1.9E-04	1.61E-05	2.4E-06	4.39E-04	2.4E-05	4.49E-06	4.4E-07	3.81E-06	9.7E-07	7.46E-05	5.8E-06	1.44E-04	1.2E-05
CAP14	2011-03-19 15:43	85992	24582	1.94E-04	8.0E-06	2.92E-05	2.1E-06	2.01E-04	3.9E-06	3.65E-03	8.6E-05	5.82E-04	1.8E-04	1.61E-05	2.7E-06	7.48E-04	4.1E-05	3.52E-06	4.8E-07	6.14E-06	1.2E-06	1.68E-04	8.6E-06	2.45E-04	1.4E-05
CAP14	2011-03-20 15:38	88137	25237	1.47E-04	6.1E-06	2.19E-05	1.7E-06	1.57E-04	3.1E-06	3.05E-03	7.2E-05	2.89E-04	1.7E-04	8.49E-06	1.9E-06	4.56E-04	2.5E-05					1.40E-04	7.4E-06	1.99E-04	1.2E-05
CAP14	2011-03-21 16:09	84516	24908	9.59E-05	4.0E-06	1.34E-05	1.1E-06	9.61E-05	2.0E-06	1.46E-03	3.4E-05	1.24E-05	1.7E-04			1.88E-04	1.0E-05	2.03E-06	4.0E-07			5.57E-05	4.2E-06	1.20E-04	1.2E-05
CAP14	2011-03-22 15:40	86161	25589	1.03E-04	4.3E-06	1.43E-05	1.1E-06	1.05E-04	2.2E-06	1.13E-03	2.7E-05	4.35E-05	1.6E-04			2.13E-04	1.2E-05					8.47E-05	5.3E-06	1.53E-04	1.4E-05
CAP14	2011-03-23 15:38	86348	25097			1.78E-05	1.4E-06	1.49E-04	3.0E-06	1.63E-03	3.8E-05	7.97E-05	1.7E-04			2.59E-04	1.4E-05			6.16E-06	9.5E-07	1.24E-04	7.1E-06	2.07E-04	1.2E-05
CAP14	2011-03-24 15:39	87325	25199	4.22E-04	1.7E-05	6.02E-05	4.1E-06	3.93E-04	7.4E-06	2.65E-03	6.2E-05	2.23E-04	1.7E-04			3.75E-04	2.0E-05	2.23E-06	4.3E-07	5.88E-06	1.1E-06	2.19E-04	1.0E-05	3.39E-04	1.5E-05
CAP14	2011-03-25 15:58	86358	25410	1.11E-04	4.6E-06	1.49E-05	1.2E-06	1.07E-04	2.2E-06	5.11E-04	1.2E-05	6.36E-05	4.5E-06			6.51E-05	3.5E-06					4.98E-05	3.9E-06	8.97E-05	9.6E-06
CAP14	2011-03-26 16:07	86689	24681	8.10E-05	3.4E-06	9.58E-06	8.1E-07	7.43E-05	1.6E-06	7.21E-04	1.7E-05	4.34E-05	3.2E-06			4.58E-05	2.6E-06					4.19E-05	3.5E-06	6.36E-05	1.2E-05
CAP14	2011-03-27 16:19	83769	23585	1.28E-05	6.8E-07			1.25E-05	4.7E-07	4.54E-04	1.1E-05	9.72E-06	9.2E-07			1.04E-05	6.7E-07					9.14E-06	2.7E-06		
CAP14	2011-03-28 15:40	86663	25234	9.65E-06	5.5E-07			9.42E-06	3.9E-07	3.05E-04	7.3E-06	6.89E-06	7.4E-07			6.62E-06	4.6E-07					7.48E-06	1.8E-06		
CAP14	2011-03-29 15:46	86120	25428	1.96E-05	9.4E-07	1.71E-06	3.6E-07	1.82E-05	5.6E-07	3.21E-04	7.7E-06	5.69E-06	6.7E-07			5.83E-06	4.2E-07					7.49E-06	2.1E-06	2.91E-05	5.5E-06
CAP14	2011-03-30 15:42	86498	24996	1.11E-06	2.4E-07			1.04E-06	1.8E-07	2.77E-05	8.0E-07														
CAP14	2011-03-31 15:45	86430	23107	4.58E-06	4.2E-07			4.25E-06	3.1E-07	9.57E-05	2.4E-06					6.84E-07	2.0E-07								
CAP14	2011-04-01 15:47	86296	22260	9.05E-06	5.6E-07			8.91E-06	4.1E-07	1.43E-04	3.5E-06					1.28E-06	2.4E-07								
CAP14	2011-04-02 15:48	87057	22614	5.67E-05	2.5E-06	4.82E-06	7.3E-07	5.64E-05	1.2E-06	4.46E-04	1.1E-05	5.14E-06	7.1E-07			6.83E-06	5.1E-07			3.41E-06	6.4E-07	2.46E-05	1.1E-06	6.04E-05	9.4E-06
CAP14	2011-04-03 16:01	85263	22397	1.21E-04	5.1E-06	1.01E-05	1.1E-06	1.13E-04	2.2E-06	4.94E-04	1.2E-05					1.17E-05	7.7E-07					5.21E-05	4.6E-06	9.98E-05	1.0E-05
CAP14	2011-04-04 15:45	86002	22615	2.34E-05	1.1E-06	1.16E-06	4.0E-07	2.26E-05	6.6E-07	9.32E-05	2.4E-06					1.69E-06	2.5E-07					1.05E-05	3.4E-06	2.81E-05	6.2E-06
CAP14	2011-04-05 15:40	86515	22364	4.68E-05	2.1E-06	2.95E-06	5.2E-07	4.47E-05	8.1E-07	1.45E-04	3.6E-06	3.36E-06	6.2E-07			2.31E-06	2.7E-07					1.54E-05	3.8E-06	4.50E-05	6.2E-06
CAP14	2011-04-06 15:43	86477	24596	8.91E-05	3.8E-06	6.22E-06	9.4E-07	8.43E-05	1.8E-06	2.03E-04	4.9E-06	3.72E-06	6.2E-07			4.45E-06	3.8E-07					3.36E-05	3.2E-06	5.57E-05	6.3E-06
CAP14	2011-04-07 15:46	86462	25189	4.99E-05	2.2E-06	2.57E-06	6.2E-07	4.93E-05	1.1E-06	1.21E-04	3.0E-06					1.59E-06	2.5E-07			3.64E-06	1.0E-06	1.94E-05	3.0E-06		
CAP14	2011-04-09 15:46	87094	25403	4.39E-05	1.9E-06	2.62E-06	3.5E-07	4.16E-05	7.5E-07	8.56E-05	2.2E-06					1.43E-06	2.7E-07					1.59E-05	1.2E-06		
CAP14	2011-04-10 16:07	85287	24925	1.98E-05	9.4E-07	1.20E-06	2.8E-07	1.88E-05	5.7E-07	3.18E-05	9.0E-07											6.96E-06	2.0E-06		
CAP14	2011-04-11 15:50	86295	25404	2.22E-05	1.0E-06			2.03E-05	6.0E-07	6.05E-05	1.6E-06											7.55E-06	4.5E-07	2.39E-05	7.3E-06
CAP14	2011-04-12 15:49	86065	23914	2.44E-05	1.1E-06			2.28E-05	4.2E-07	5.34E-05	1.4E-06							5.33E-07	1.6E-07			1.02E-05	1.2E-06	2.84E-05	6.7E-06
CAP14	2011-04-13 15:45	86453	25013	2.46E-05	1.1E-06			2.37E-05	6.6E-07	8.43E-05	2.1E-06													3.15E-05	6.7E-06
CAP14	2011-04-14 15:47	86095	26006	2.83E-05	1.3E-06	1.21E-06	3.3E-07	2.76E-05	7.3E-07	6.81E-05	1.8E-06											1.20E-05	1.4E-06		
CAP14	2011-04-15 15:44	86458	25317	4.96E-05	2.1E-06	2.09E-06	4.3E-07	4.72E-05	1.1E-06	7.44E-05	1.9E-06											2.24E-05	3.7E-06		
CAP14	2011-04-16 15:47	86096	25345	4.12E-05	1.8E-06	1.56E-06	4.0E-07	4.01E-05	9.7E-07	6.86E-05	1.8E-06											1.20E-05	3.8E-06	3.69E-05	5.2E-06
CAP14	2011-04-17 15:44	86623	25644	2.11E-05	9.9E-07			2.05E-05	6.0E-07	4.04E-05	1.1E-06														
CAP14	2011-04-18 15:50	86173	25373	2.40E-05	1.1E-06			2.32E-05	6.6E-07	4.51E-05	1.2E-06											9.17E-06	2.1E-06		
CAP14	2011-04-19 15:49	86149	25160	4.01E-05	1.8E-06			3.90E-05	9.5E-07	4.21E-05	1.2E-06											1.47E-05	2.8E-06	3.81E-05	6.4E-06
CAP14	2011-04-20 15:46	86645	25747	2.13E-05	1.0E-06			2.05E-05	6.0E-07	3.18E-05	9.0E-07											7.54E-06	2.4E-06	3.19E-05	1.8E-06
CAP14	2011-04-21 15:51	86102	25518	2.10E-05	8.8E-07			1.93E-05	5.8E-07	3.14E-05	8.9E-07											7.89E-06	1.9E-06		
CAP14	2011-04-22 15:50	86476	23081	5.65E-05	2.4E-06	1.16E-06	3.5E-07	5.35E-05	1.3E-06	6.49E-05	1.7E-06											1.33E-05	3.5E-06	3.59E-05	8.6E-06
CAP14	2011-04-23 15:54	85275	22032	4.53E-05	2.0E-06			4.23E-05	9.2E-07	5.61E-05	1.5E-06													3.88E-05	7.6E-06
CAP14	2011-04-24 15:37	86849	22579	2.64E-05	1.2E-06			2.41E-05	7.1E-07	2.81E-05	8.6E-07														
CAP14	2011-04-25 15:46	86121	22035	2.59E-06	3.7E-07			2.39E-06	2.4E-07	6.58E-06	3.3E-07							4.77E-07	1.4E-07						
CAP14	2011-04-26 15:43	86872	24428					6.39E-07	3.2E-07	4.71E-06	2.6E-07														
CAP14	2011-04-27 15:52	85998	22515	3.15E-06	3.8E-07			2.66E-06	2.3E-07	5.58E-06	2.9E-07														
CAP14	2011-04-28 15:46	86547	22543	4.92E-06	4.4E-07			5.00E-06	3.0E-07	7.05E-06	3.3E-07														
CAP14	2011-04-29 15:50	87896	22827	3.18E-06	3.7E-07			3.27E-06	2.4E-07	6.92E-06	3.3E-07														
CAP14	2011-04-30 16:19	85772	22397	6.68E-06	5.3E-07			6.68E-06	3.4E-07	9.80E-06	4.2E-07														
CAP14	2011-05-01 16:17	84574	22017	7.41E-06	5.0E-07			6.82E-06	2.8E-07	9.00E-06	4.3E-07														
CAP14	2011-05-02 15:48	86223	22075	3.59E-06	3.9E-07			2.84E-06	2.4E-07	3.72E-06	2.5E-07														
CAP14	2011-05-03 15:47	86374	22327	6.38E-06	4.6E-07			6.10E-06	3.3E-07	3.40E-06	2.6E-07														
CAP14	2011-05-04 15:48	86165	22516	1.01E-05	6.0E-07			9.80E-06	4.3E-07	6.14E-06	3.6E-07														
CAP14	2011-05-05 15:45	86349	22215	9.72E-06	5.7E-07			9.32E-06	4.1E-07	4.05E-06	2.8E-07														

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAP14	2011-05-06 15:46	86195	22327	1.85E-06	3.2E-07			2.21E-06	1.6E-07	2.14E-06	2.6E-07														
CAP14	2011-05-07 15:45	85841	22241	8.82E-07	2.5E-07			9.02E-07	1.8E-07	2.45E-06	2.2E-07														
CAP14	2011-05-08 15:38	86735	22501							1.20E-06	2.2E-07														
CAP14	2011-05-09 15:45	86303	22431	1.35E-06	1.8E-07			7.44E-07	2.4E-07	1.73E-06	2.3E-07														
CAP14	2011-05-10 15:46	86332	21334	3.01E-06	3.7E-07			2.19E-06	2.5E-07	2.20E-06	2.7E-07														
CAP14	2011-05-11 15:46	86309	22543	3.25E-06	3.7E-07			3.15E-06	2.6E-07	1.89E-06	2.5E-07														
CAP14	2011-05-12 15:46	86353	23067	2.30E-06	3.2E-07			2.12E-06	2.3E-07	1.43E-06	2.5E-07														
CAP14	2011-05-13 15:46	85930	21838	3.60E-06	3.9E-07			3.45E-06	2.6E-07	1.50E-06	2.7E-07														
CAP14	2011-05-14 15:41	86282	21399	2.49E-06	5.6E-07			2.30E-06	2.5E-07	1.43E-06	4.0E-07														
CAP14	2011-05-16 16:05	86280	21684	1.87E-06	3.2E-07			1.44E-06	2.2E-07	1.05E-06	3.0E-07														
CAP14	2011-05-18 16:01	81199	23702	2.21E-06	3.2E-07			1.51E-06	2.4E-07																
CAP14	2011-05-19 20:17	70005	20209	1.88E-06	1.4E-07			1.16E-06	2.4E-07																
CAP14	2011-05-20 15:45	86766	25208	1.61E-06	2.3E-07			1.66E-06	1.9E-07	1.23E-06	2.7E-07														
CAP14	2011-05-21 15:54	85823	25226	1.32E-06	3.2E-07			1.37E-06	1.3E-07																
CAP14	2011-05-22 15:47	85605	24937	2.82E-06	4.7E-07			2.65E-06	2.3E-07																
CAP14	2011-05-23 15:35	86593	24910	3.67E-06	4.3E-07			3.26E-06	8.1E-08																
CAP14	2011-05-24 15:39	86778	25332	4.08E-06	3.8E-07			3.96E-06	2.7E-07																
CAP14	2011-05-25 15:47	86228	25044	1.81E-06	4.7E-07			1.30E-06	1.8E-07																
CAP14	2011-05-27 15:44	86392	24778					4.27E-07	2.5E-07									5.01E-07	1.3E-07						
CAP15	2011-03-13 22:54	86399	19694															4.98E-06	3.3E-07						
CAP15	2011-03-14 22:54	86400	20296															5.84E-06	5.6E-07						
CAP15	2011-03-16 22:55	86357	19247															4.92E-06	4.6E-07						
CAP15	2011-03-17 22:55	86395	19675															5.08E-06	3.8E-07						
CAP15	2011-03-18 22:55	86400	20546															4.69E-06	6.0E-07						
CAP15	2011-03-19 22:55	86400	19873													2.16E-06	7.7E-07	4.27E-06	8.3E-07						
CAP15	2011-03-20 22:55	86398	16930							1.33E-03	4.2E-05														
CAP15	2011-03-21 22:55	86400	18970					3.36E-06	5.2E-07	4.56E-03	1.4E-04	6.70E-06	1.1E-06												
CAP15	2011-03-22 22:55	86400	18849							1.36E-03	4.3E-05	3.62E-06	8.4E-07			4.62E-06	1.0E-06								
CAP15	2011-03-23 22:55	86402	18378					3.21E-06	4.9E-07	4.75E-04	1.5E-05					4.19E-06	8.7E-07	6.29E-06	9.2E-07						
CAP15	2011-03-24 22:55	86399	18401	1.04E-05	7.8E-07	1.44E-06	1.3E-06	1.05E-05	7.6E-07	1.91E-03	6.1E-05	5.54E-06	1.3E-06			3.92E-06	5.5E-06								
CAP15	2011-03-25 22:55	86401	18176	9.43E-05	3.8E-06	1.11E-05	9.6E-07	9.88E-05	3.4E-06	1.26E-03	4.0E-05	8.42E-05	4.7E-06			8.82E-05	5.1E-06					6.33E-05	8.2E-06	1.42E-04	1.8E-05
CAP15	2011-03-26 22:55	86398	17925	3.52E-05	2.3E-05	5.02E-06	7.7E-07	6.13E-05	2.2E-06	4.16E-03	1.6E-03	1.78E-05	1.8E-06			1.46E-05	1.8E-06							7.89E-05	1.7E-05
CAP15	2011-03-27 22:55	86401	18922	6.17E-06	7.0E-07			5.76E-06	5.9E-07	8.20E-03	2.6E-04														
CAP15	2011-03-28 22:55	86400	19204	5.48E-06	6.8E-07			5.06E-06	5.4E-07	1.06E-02	3.3E-04														
CAP15	2011-03-29 22:55	86400	18038	4.83E-05	2.2E-06	2.93E-06	8.5E-07	4.60E-05	1.8E-06	4.72E-03	1.5E-04	8.92E-06	1.4E-06			8.95E-06	1.6E-06								
CAP15	2011-03-30 22:55	86400	17762	6.13E-05	2.3E-06	6.01E-06	7.6E-07	5.75E-05	2.1E-06	3.60E-03	2.0E-02	1.04E-05	1.5E-06			1.33E-05	1.9E-06							5.78E-05	1.6E-05
CAP15	2011-03-31 22:55	86400	18937	8.19E-04	3.0E-05	7.32E-05	3.4E-06	8.08E-04	2.5E-05	5.25E-03	1.7E-04	1.55E-04	8.2E-06			1.66E-04	9.4E-06					4.15E-04	2.2E-05	6.50E-04	3.5E-05
CAP15	2011-04-01 22:55	86400	17377	1.12E-04	4.4E-06	8.56E-06	8.4E-07	1.05E-04	3.2E-06	4.02E-03	1.3E-04	1.55E-05	1.1E-06			1.54E-05	1.8E-06					4.02E-05	7.6E-06	8.50E-05	1.6E-05
CAP15	2011-04-02 22:55	86401	18446	1.71E-04	6.5E-06	1.37E-05	1.2E-06	1.68E-04	5.5E-06	7.15E-03	2.3E-04					2.15E-05	2.3E-06					7.93E-05	1.0E-05	1.79E-04	2.0E-05
CAP15	2011-04-03 22:55	86400	17774	1.82E-04	6.9E-06	1.42E-05	1.1E-06	1.85E-04	6.0E-06	3.30E-03	1.0E-04	1.67E-05	1.1E-06			1.82E-05	1.7E-06					8.21E-05	9.0E-06	1.59E-04	1.9E-05
CAP15	2011-04-04 22:55	86402	18595	1.08E-04	4.3E-06	6.51E-06	7.3E-07	1.03E-04	3.5E-06	3.09E-03	9.8E-05	8.18E-06	1.3E-06			9.08E-06	1.5E-06	5.92E-06	1.3E-06			5.43E-05	7.3E-06	8.77E-05	1.5E-05
CAP15	2011-04-05 22:55	86398	19027	6.55E-05	2.7E-06	5.53E-06	7.6E-07	6.51E-05	2.3E-06	1.24E-03	3.9E-05	3.48E-06	7.3E-07					5.74E-06	3.7E-06			4.32E-05	6.2E-06	7.78E-05	1.4E-05
CAP15	2011-04-06 22:55	86401	18367	9.56E-05	3.9E-06	5.67E-06	7.1E-07	9.51E-05	3.2E-06	1.44E-03	4.6E-05	4.73E-06	5.7E-07					5.59E-06	8.5E-07						
CAP15	2011-04-07 22:55	86400	17980	6.10E-05	2.4E-06	3.94E-06	7.1E-07	5.94E-05	2.2E-06	1.47E-03	4.7E-05											2.33E-05	6.3E-06		
CAP15	2011-04-08 22:55	86400	17642	9.96E-05	3.9E-06	6.22E-06	7.7E-07	9.75E-05	3.3E-06	2.07E-03	6.6E-05					3.95E-06	1.1E-06	4.66E-06	1.2E-06			4.34E-05	7.1E-06		
CAP15	2011-04-09 22:55	86398	17880	1.37E-04	5.1E-06	5.95E-06	7.6E-07	1.30E-04	4.3E-06	1.92E-03	6.1E-05							6.57E-06	1.2E-06			4.11E-05	7.2E-06		
CAP15	2011-04-10 22:55	86401	19939	1.55E-04	5.9E-06	8.16E-06	7.4E-07	1.57E-04	5.1E-06	2.27E-03	7.2E-05							5.74E-06	8.6E-07			6.40E-05	7.3E-06	1.38E-04	1.6E-05
CAP15	2011-04-11 22:55	86400	20613	1.32E-04	5.1E-06	7.78E-06	7.3E-07	1.33E-04	4.3E-06	1.99E-03	6.3E-05											5.33E-05	7.8E-06	7.13E-05	1.4E-05
CAP15	2011-04-12 22:55	86402	19941	9.17E-05	3.7E-06	4.51E-06	6.4E-07	8.88E-05	3.0E-06	1.22E-03	3.9E-05							4.13E-06	3.8E-06			2.53E-05	5.7E-06		
CAP15	2011-04-13 22:55	86399	19363	7.52E-05	3.1E-06	3.94E-06	7.6E-07	7.53E-05	2.6E-06	6.52E-04	2.1E-05											3.99E-05	6.6E-06	9.18E-05	1.9E-05

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAP15	2011-04-14 22:55	86399	20630	1.49E-04	6.0E-06	6.90E-06	7.0E-07	1.46E-04	4.7E-06	8.78E-04	2.8E-05							5.17E-06	1.0E-06			5.33E-05	6.8E-06	8.85E-05	1.7E-05
CAP15	2011-04-15 22:55	86399	20277	2.39E-04	9.0E-06	8.83E-06	7.7E-07	2.43E-04	7.6E-06	8.78E-04	2.8E-05											8.12E-05	7.9E-06	1.84E-04	1.7E-05
CAP15	2011-04-16 22:55	86400	20035	2.43E-04	8.9E-06	1.02E-05	5.1E-07	2.40E-04	7.6E-06	1.01E-03	3.2E-05											8.39E-05	8.9E-06	1.66E-04	1.8E-05
CAP15	2011-04-17 22:55	86399	20040	2.05E-04	7.5E-06	8.43E-06	8.3E-07	2.04E-04	6.5E-06	9.47E-04	3.0E-05											6.02E-05	5.9E-06	1.70E-04	1.8E-05
CAP15	2011-04-18 22:55	86401	19382	2.84E-04	1.1E-05	9.80E-06	8.5E-07	2.87E-04	9.0E-06	8.48E-04	2.7E-05							4.61E-06	6.8E-07			9.89E-05	8.9E-06	1.68E-04	1.7E-05
CAP15	2011-04-19 22:55	86402	19158	3.06E-04	1.1E-05	1.06E-05	8.8E-07	3.06E-04	9.6E-06	6.43E-04	2.1E-05											1.06E-04	9.2E-06	1.85E-04	1.9E-05
CAP15	2011-04-20 22:55	86399	19668	2.92E-04	1.1E-05	9.81E-06	8.4E-07	2.97E-04	9.3E-06	5.23E-04	1.7E-05											8.92E-05	8.7E-06	1.68E-04	1.7E-05
CAP15	2011-04-21 22:55	86401	25133	1.85E-04	1.2E-05	5.17E-06	6.0E-07	1.87E-04	5.9E-06	3.44E-04	1.1E-05							4.50E-06	1.7E-07			4.72E-05	6.4E-06	1.18E-04	1.5E-05
CAP15	2011-04-22 22:55	86399	28810	1.25E-04	4.8E-06	3.19E-06	4.6E-07	1.26E-04	4.0E-06	2.79E-04	9.0E-06											3.82E-05	5.1E-06	7.42E-05	1.1E-05
CAP15	2011-04-23 22:55	86405	20696	2.62E-04	9.8E-06	7.75E-06	7.5E-07	2.63E-04	8.2E-06	4.52E-04	1.5E-05											7.67E-05	7.9E-06	1.32E-04	1.6E-05
CAP15	2011-04-24 22:55	86398	20008	2.82E-04	1.0E-05	7.40E-06	8.7E-07	2.90E-04	9.1E-06	3.53E-04	1.2E-05											8.94E-05	1.1E-05	1.72E-04	2.0E-05
CAP15	2011-04-25 22:55	91846	19351	1.82E-04	2.3E-05	4.91E-06	8.1E-07	2.05E-04	6.6E-06	2.89E-04	9.5E-06							5.18E-06	5.4E-07			6.15E-05	9.6E-06	8.33E-05	1.8E-05
CAP15	2011-04-27 0:25	80877	27076	9.45E-05	1.6E-05	1.76E-06	4.7E-07	1.07E-04	3.5E-06	1.33E-04	4.5E-06														
CAP15	2011-04-27 22:53	86466	19273	1.93E-04	7.3E-06	4.50E-06	7.8E-07	1.89E-04	6.0E-06	2.38E-04	7.9E-06											4.69E-05	8.1E-06	9.86E-05	1.7E-05
CAP15	2011-04-28 22:54	86413	19076	2.21E-04	8.3E-06	4.47E-06	7.9E-07	2.22E-04	7.0E-06	1.68E-04	5.7E-06											4.86E-05	8.5E-06	1.42E-04	1.9E-05
CAP15	2011-04-29 22:55	86398	19205	1.88E-04	7.0E-06	2.98E-06	6.5E-07	1.87E-04	6.0E-06	1.37E-04	4.7E-06							4.03E-06	6.2E-07			6.33E-05	1.5E-05	1.18E-04	1.6E-05
CAP15	2011-04-30 22:55	86400	19247	1.77E-04	6.8E-06	3.75E-06	8.5E-07	1.78E-04	5.7E-06	1.39E-04	4.8E-06							5.00E-06	1.8E-06			3.29E-05	7.3E-06	1.11E-04	1.7E-05
CAP15	2011-05-01 22:55	86399	19536	1.42E-04	5.5E-06			1.44E-04	4.7E-06	1.86E-04	6.2E-06											3.15E-05	4.4E-06		
CAP15	2011-05-02 22:55	86402	18987	1.17E-04	4.6E-06	3.38E-06	8.6E-07	1.17E-04	3.9E-06	1.57E-04	5.3E-06							5.85E-06	9.9E-07			3.54E-05	7.0E-06		
CAP15	2011-05-03 22:55	86399	18454	9.06E-05	3.7E-06			9.43E-05	3.2E-06	1.29E-04	4.4E-06							4.39E-06	4.7E-07						
CAP15	2011-05-04 22:55	86400	18987	6.51E-05	2.7E-06			6.33E-05	2.3E-06	1.27E-04	4.4E-06							5.02E-06	7.2E-07						
CAP15	2011-05-05 22:55	86400	18933	4.41E-05	2.0E-06			4.34E-05	1.7E-06	8.62E-05	3.1E-06							3.40E-06	7.9E-07						
CAP15	2011-05-06 22:55	86399	18599	2.36E-05	8.9E-07			2.07E-05	1.0E-06	7.08E-05	2.6E-06														
CAP15	2011-05-07 22:55	86399	18328	5.14E-05	2.2E-06			4.95E-05	1.9E-06	7.86E-05	2.9E-06							4.46E-06	1.5E-06						
CAP15	2011-05-08 22:55	86401	18631	4.54E-05	2.0E-06			4.46E-05	1.7E-06	5.80E-05	2.2E-06							6.60E-06	1.1E-06					5.88E-05	1.6E-05
CAP15	2011-05-09 22:55	86401	18254	4.16E-05	1.9E-06			3.97E-05	1.6E-06	4.92E-05	2.0E-06														
CAP15	2011-05-10 22:55	86399	18009	1.77E-05	1.0E-06			1.79E-05	9.4E-07	6.69E-05	2.5E-06							4.56E-06	6.7E-07						
CAP15	2011-05-11 22:55	86401	18366	1.92E-05	1.1E-06			2.04E-05	1.0E-06	7.67E-05	2.8E-06														
CAP15	2011-05-12 22:55	86399	18811	2.49E-05	1.3E-06			2.45E-05	1.2E-06	4.30E-05	1.8E-06														
CAP15	2011-05-13 22:55	86402	18003	1.93E-05	1.1E-06			2.00E-05	1.0E-06	3.58E-05	1.5E-06							6.62E-06	3.3E-06						
CAP15	2011-05-14 22:55	86398	18576	2.74E-05	5.9E-06			2.62E-05	1.2E-06	2.76E-05	1.3E-06														
CAP15	2011-05-15 22:55	86401	18543	1.82E-05	1.1E-06			1.69E-05	9.1E-07	3.75E-05	1.6E-06														
CAP15	2011-05-16 22:55	86399	18173	1.21E-05	8.4E-07			1.22E-05	7.7E-07	2.69E-05	1.3E-06							5.12E-06	5.7E-07						
CAP15	2011-05-17 22:55	86399	17713	1.11E-05	8.5E-07			1.22E-05	8.0E-07	1.09E-05	9.0E-07							4.93E-06	9.5E-07						
CAP15	2011-05-18 22:55	86401	17483					8.79E-06	7.2E-07	1.74E-05	1.1E-06													7.06E-05	1.6E-05
CAP15	2011-05-19 22:55	86400	18067	4.43E-06	6.3E-07			3.44E-06	5.3E-07	1.29E-05	8.9E-07														
CAP15	2011-05-20 22:55	86400	17626	3.90E-06	6.3E-07			5.69E-06	6.0E-07	1.23E-05	9.2E-07														
CAP15	2011-05-21 22:55	86400	17325					3.78E-06	6.1E-07	7.03E-06	9.1E-07							4.49E-06	6.8E-07						
CAP15	2011-05-22 22:55	86400	17079					4.34E-06	6.0E-07	5.49E-06	8.2E-07														
CAP15	2011-05-23 22:55	86400	17248					3.39E-06	5.2E-07	4.77E-06	6.8E-07														
CAP15	2011-05-24 22:55	86401	17066							3.17E-06	6.5E-07							5.24E-06	9.0E-07						
CAP15	2011-05-25 22:55	86399	16896							2.07E-06	8.2E-07							6.03E-06	7.2E-07						
CAP15	2011-05-26 22:55	86400	16937					1.91E-06	4.8E-07	2.96E-06	5.8E-07														
CAP15	2011-05-27 22:55	86400	16658					2.15E-06	5.7E-07	2.10E-06	6.6E-07							6.01E-06	9.5E-07						
CAP15	2011-05-28 22:55	86401	17451					2.34E-06	5.6E-07									6.98E-06	9.6E-07						
CAP16	2011-03-19 15:15	86533	24109											1.67E-06	6.0E-07										
CAP16	2011-03-20 15:18	85749	23896							8.88E-07	2.0E-07														
CAP16	2011-03-22 15:21	85954	22450	2.11E-05	1.0E-06	2.24E-06	4.0E-07	1.95E-05	6.1E-07	3.19E-04	7.6E-06	1.49E-05	1.3E-06			1.59E-05	9.4E-07	6.79E-07	1.6E-07						
CAP16	2011-03-23 15:14	86171	22723	1.75E-05	8.7E-07	2.31E-06	3.5E-07	1.81E-05	5.8E-07	6.12E-04	1.5E-05	9.56E-06	9.7E-07			9.24E-06	6.0E-07								
CAP16	2011-03-24 15:12	86326	22297	1.10E-04	4.6E-06	1.32E-05	1.1E-06	1.11E-04	2.3E-06	2.22E-03	5.2E-05	8.41E-05	5.8E-06			8.66E-05	4.8E-06			3.08E-06	9.8E-07	4.83E-05	4.0E-06	7.11E-05	7.6E-06

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAP16	2011-03-25 15:11	86208	22353	1.25E-05	6.8E-07	1.79E-06	3.8E-07	1.35E-05	5.0E-07	7.33E-04	1.7E-05	6.88E-06	7.8E-07			7.33E-06	5.5E-07							1.93E-05	6.1E-06
CAP16	2011-03-26 15:09	86582	22496	5.49E-05	2.4E-06	5.86E-06	8.6E-07	5.45E-05	1.3E-06	1.28E-03	3.0E-05	2.64E-05	2.1E-06			2.68E-05	1.5E-06					2.30E-05	2.9E-06	5.55E-05	6.5E-06
CAP16	2011-03-27 15:13	86779	22433	3.89E-05	1.7E-06	4.40E-06	5.2E-07	3.83E-05	9.6E-07	7.82E-04	1.9E-05	1.22E-05	1.1E-06			1.23E-05	7.7E-07					1.55E-05	3.3E-06	3.48E-05	5.4E-06
CAP16	2011-03-28 15:20	85482	22220	6.33E-05	2.7E-06	6.87E-06	8.0E-07	6.08E-05	1.4E-06	9.95E-04	2.4E-05	2.01E-05	1.7E-06			2.33E-05	1.4E-06					3.35E-05	3.2E-06	6.97E-05	6.7E-06
CAP16	2011-03-29 15:06	87234	22322	7.23E-05	3.1E-06	6.99E-06	6.6E-07	6.86E-05	1.5E-06	9.66E-04	2.3E-05	1.83E-05	1.5E-06			2.16E-05	1.3E-06					3.21E-05	3.2E-06	5.82E-05	6.7E-06
CAP16	2011-03-30 15:21	85513	21830	1.70E-04	7.1E-06	1.69E-05	1.3E-06	1.64E-04	3.3E-06	1.16E-03	2.8E-05	3.72E-05	2.8E-06			4.08E-05	2.3E-06					7.73E-05	4.9E-06	1.51E-04	1.3E-05
CAP16	2011-03-31 15:07	86629	22022	2.05E-04	8.5E-06	2.20E-05	1.6E-06	2.07E-04	4.0E-06	1.24E-03	2.9E-05	3.69E-05	2.8E-06			3.95E-05	2.2E-06					9.73E-05	5.7E-06	1.44E-04	1.0E-05
CAP16	2011-04-01 15:12	87388	22502	2.94E-04	1.2E-05	2.74E-05	2.0E-06	2.80E-04	5.3E-06	1.62E-03	3.8E-05	4.23E-05	3.1E-06			4.53E-05	2.5E-06					1.22E-04	6.5E-06	2.00E-04	1.1E-05
CAP16	2011-04-02 15:30	85611	22682	1.05E-04	4.4E-06	9.69E-06	9.2E-07	1.01E-04	2.1E-06	2.05E-03	4.8E-05	1.30E-05	1.3E-06			1.49E-05	9.3E-07					4.80E-05	3.9E-06	9.63E-05	7.5E-06
CAP16	2011-04-03 15:17	85922	22584	1.38E-04	5.8E-06	1.08E-05	9.8E-07	1.29E-04	2.6E-06	2.26E-03	5.3E-05	1.36E-05	1.4E-06			1.50E-05	9.4E-07					5.19E-05	4.0E-06	9.54E-05	1.0E-05
CAP16	2011-04-04 15:11	86584	22398	1.52E-04	6.3E-06	1.08E-05	1.1E-06	1.48E-04	3.0E-06	1.86E-03	4.4E-05	1.15E-05	1.0E-06			1.42E-05	8.9E-07					6.40E-05	4.4E-06	1.14E-04	8.3E-06
CAP16	2011-04-05 15:16	86959	22298	1.25E-04	5.2E-06	9.14E-06	8.8E-07	1.19E-04	2.5E-06	1.03E-03	2.4E-05	8.55E-06	1.2E-06			9.22E-06	6.3E-07					5.21E-05	3.9E-06	9.21E-05	7.4E-06
CAP16	2011-04-06 15:26	85332	22413	1.32E-04	5.5E-06	9.78E-06	9.6E-07	1.29E-04	2.6E-06	1.22E-03	2.9E-05	9.29E-06	1.1E-06			6.91E-06	5.3E-07					6.39E-05	4.6E-06	1.01E-04	9.0E-06
CAP16	2011-04-07 15:10	86613	22699	1.33E-04	5.5E-06	8.13E-06	8.5E-07	1.25E-04	2.5E-06	7.09E-04	1.7E-05	5.67E-06	8.5E-07			5.73E-06	4.5E-07					4.93E-05	3.8E-06	9.58E-05	7.2E-06
CAP16	2011-04-08 15:14	86507	21962	8.25E-05	3.5E-06	4.67E-06	5.5E-07	7.89E-05	1.7E-06	3.27E-04	7.8E-06	2.39E-06	6.7E-07			3.10E-06	3.3E-07					3.22E-05	3.1E-06	7.41E-05	6.7E-06
CAP16	2011-04-09 15:18	86012	21969	1.19E-04	5.0E-06	7.17E-06	8.5E-07	1.16E-04	2.4E-06	7.03E-04	1.7E-05					3.92E-06	3.8E-07					4.85E-05	3.7E-06	8.12E-05	1.1E-05
CAP16	2011-04-10 15:12	85998	22918	1.50E-04	6.2E-06	9.44E-06	8.7E-07	1.46E-04	2.9E-06	9.67E-04	2.3E-05	4.04E-06	6.4E-07			4.18E-06	4.3E-07					5.71E-05	4.2E-06	1.24E-04	1.7E-05
CAP16	2011-04-11 15:07	87007	24181	1.56E-04	6.5E-06	9.02E-06	9.8E-07	1.51E-04	3.0E-06	1.11E-03	2.6E-05	3.36E-06	6.4E-07			3.00E-06	3.4E-07					6.10E-05	4.1E-06	9.53E-05	8.6E-06
CAP16	2011-04-12 15:18	85651	23745	3.65E-04	1.5E-05	1.75E-05	1.4E-06	3.43E-04	6.5E-06	1.03E-03	2.4E-05	5.44E-06	1.1E-06			5.06E-06	4.4E-07					1.41E-04	7.1E-06	2.22E-04	1.2E-05
CAP16	2011-04-13 15:07	86769	23915	1.91E-04	7.8E-06	8.46E-06	7.9E-07	1.85E-04	3.6E-06	6.50E-04	1.5E-05	2.41E-06	5.2E-07									7.64E-05	4.6E-06	1.42E-04	1.2E-05
CAP16	2011-04-14 15:14	86141	23547	4.61E-04	1.9E-05	1.98E-05	1.5E-06	4.39E-04	8.2E-06	9.57E-04	2.3E-05	3.30E-06	7.3E-07			5.00E-06	4.6E-07					1.54E-04	7.7E-06	2.38E-04	1.2E-05
CAP16	2011-04-15 15:11	86043	23468	3.46E-04	1.4E-05	1.37E-05	1.1E-06	3.36E-04	6.3E-06	8.81E-04	2.1E-05					3.19E-06	3.9E-07					1.15E-04	6.4E-06	2.09E-04	1.1E-05
CAP16	2011-04-16 15:05	86380	22971	2.96E-04	1.2E-05	1.14E-05	1.0E-06	2.85E-04	5.4E-06	5.62E-04	1.3E-05					1.99E-06	3.3E-07					1.05E-04	5.9E-06	1.85E-04	1.1E-05
CAP16	2011-04-17 15:07	86559	23263	2.96E-04	1.2E-05	1.09E-05	9.8E-07	2.85E-04	5.4E-06	5.67E-04	1.4E-05					1.69E-06	3.2E-07					9.40E-05	5.5E-06	1.87E-04	1.1E-05
CAP16	2011-04-18 15:10	86225	22703	1.93E-04	8.0E-06	7.45E-06	9.0E-07	1.85E-04	3.6E-06	2.37E-04	5.7E-06											6.31E-05	4.6E-06	1.07E-04	9.0E-06
CAP16	2011-04-19 15:08	86638	22541	8.09E-05	3.4E-06	2.58E-06	4.4E-07	7.87E-05	1.7E-06	1.51E-04	3.7E-06											2.60E-05	2.7E-06	4.66E-05	9.9E-06
CAP16	2011-04-20 15:13	86225	22833	1.17E-04	4.9E-06	3.90E-06	6.8E-07	1.17E-04	2.4E-06	4.49E-04	1.1E-05											3.74E-05	3.3E-06	6.05E-05	1.2E-05
CAP16	2011-04-21 15:13	85840	23065	1.77E-04	7.3E-06	6.37E-06	6.9E-07	1.71E-04	3.4E-06	4.78E-04	1.1E-05											5.52E-05	4.1E-06	9.12E-05	9.3E-06
CAP16	2011-04-22 15:05	86111	22789	1.43E-04	5.9E-06	4.89E-06	6.7E-07	1.46E-04	2.9E-06	2.19E-04	5.3E-06											4.70E-05	3.7E-06	8.28E-05	9.8E-06
CAP16	2011-04-23 15:02	86352	23231	1.65E-04	6.8E-06	4.97E-06	7.6E-07	1.61E-04	3.2E-06	2.55E-04	6.1E-06											4.85E-05	3.7E-06	9.60E-05	2.4E-05
CAP16	2011-04-24 15:02	86737	23544	2.21E-04	9.1E-06	6.88E-06	1.0E-06	2.16E-04	4.2E-06	3.73E-04	8.9E-06											6.36E-05	4.3E-06	1.15E-04	1.0E-05
CAP16	2011-04-25 15:16	86507	22394	1.53E-04	6.4E-06	3.75E-06	4.8E-07	1.46E-04	2.9E-06	1.30E-04	3.2E-06											3.83E-05	3.5E-06	6.67E-05	1.5E-05
CAP16	2011-04-26 15:19	85797	22185	8.86E-05	3.7E-06	2.81E-06	4.1E-07	8.78E-05	1.9E-06	8.73E-05	2.2E-06											2.36E-05	2.9E-06	4.24E-05	8.9E-06
CAP16	2011-04-27 15:10	86300	21954	7.03E-05	3.0E-06	1.79E-06	3.5E-07	6.63E-05	1.5E-06	5.22E-05	1.4E-06											2.11E-05	3.1E-06		
CAP16	2011-04-28 15:09	86477	23122	2.87E-05	1.3E-06			2.86E-05	7.7E-07	4.06E-05	1.1E-06											9.48E-06	1.8E-06		
CAP16	2011-04-29 15:14	86378	23096	3.57E-05	1.6E-06			3.50E-05	8.9E-07	4.80E-05	1.3E-06											9.24E-06	4.0E-06	2.92E-05	5.2E-06
CAP16	2011-04-30 15:15	85859	22567	3.46E-05	1.6E-06			3.33E-05	8.6E-07	4.91E-05	1.3E-06														
CAP16	2011-05-01 15:07	86403	23325	7.49E-05	3.2E-06			7.31E-05	1.6E-06	5.51E-05	1.5E-06									4.00E-06	1.1E-06	1.75E-05	2.6E-06	3.35E-05	9.2E-06
CAP16	2011-05-02 15:08	86594	22936	5.58E-05	2.4E-06	1.04E-06	3.4E-07	5.45E-05	1.3E-06	5.09E-05	1.4E-06													3.16E-05	6.2E-06
CAP16	2011-05-03 15:12	86425	22367	2.25E-05	1.1E-06			2.27E-05	6.7E-07	1.75E-05	5.9E-07														
CAP16	2011-05-04 15:14	86007	22451	2.70E-05	1.3E-06			2.74E-05	7.6E-07	1.51E-05	5.4E-07													2.56E-05	6.7E-06
CAP16	2011-05-05 15:08	86397	22541	1.94E-05	9.6E-07			1.83E-05	6.0E-07	1.49E-05	5.3E-07											7.18E-06	2.0E-06		
CAP16	2011-05-06 15:10	86028	22216	1.50E-05	7.8E-07			1.40E-05	5.2E-07	7.66E-06	3.7E-07														
CAP16	2011-05-07 15:04	86356	22121	5.70E-06	4.6E-07			5.39E-06	3.4E-07	4.22E-06	3.1E-07														
CAP16	2011-05-08 15:04	86654	22177	6.05E-06	4.6E-07			5.97E-06	3.6E-07	2.25E-06	3.2E-07														
CAP16	2011-05-09 15:09	86580	21934	1.03E-05	6.0E-07			1.06E-05	4.5E-07	3.01E-06	2.9E-07														
CAP16	2011-05-10 15:14	86238	21757	3.15E-06	3.7E-07			3.30E-06	2.9E-07	1.70E-06	2.6E-07														
CAP16	2011-05-11 15:13	86194	21635	2.65E-06	6.3E-07			2.59E-06	2.7E-07	1.33E-06	2.7E-07														
CAP16	2011-05-12 15:10	86600	21917	2.26E-06	3.3E-07			2.12E-06	2.9E-07	1.28E-06	3.4E-07														
CAP16	2011-05-14 14:57	86931	22009					2.13E-06	2.6E-07	1.79E-06	2.7E-07														

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAP16	2011-05-15 15:10	86410	20240	2.70E-06	3.7E-07			5.30E-06	3.6E-07	5.95E-06	4.0E-07														
CAP16	2011-05-16 15:11	86428	21238	1.86E-06	4.4E-07			2.82E-06	3.3E-07	4.09E-06	4.1E-07														
CAP16	2011-05-17 15:14	85994	21963	3.63E-06	4.4E-07			3.45E-06	3.1E-07	4.69E-06	3.4E-07														
CAP16	2011-05-18 15:08	86295	22302	3.24E-06	3.9E-07			3.86E-06	3.3E-07	2.59E-06	3.2E-07														
CAP16	2011-05-19 15:07	86658	22443	2.47E-06	4.1E-07			2.48E-06	3.0E-07	1.71E-06	2.8E-07														
CAP16	2011-05-20 15:12	85694	22003	1.53E-06	3.9E-07			2.59E-06	3.7E-07																
CAP16	2011-05-21 15:03	86898	22428	2.91E-06	4.3E-07			2.59E-06	2.6E-07	1.58E-06	2.7E-07														
CAP16	2011-05-22 15:12	85883	22447	3.65E-06	3.9E-07			3.98E-06	3.3E-07	1.62E-06	3.0E-07							9.25E-07	2.3E-07						
CAP16	2011-05-23 15:05	86649	22413	3.78E-06	4.0E-07			3.43E-06	3.1E-07	1.72E-06	3.6E-07														
CAP16	2011-05-24 15:10	84645	22049	7.28E-06	5.8E-07			6.61E-06	4.7E-07															3.65E-05	1.1E-05
CAP16	2011-05-25 14:42	88081	22429	2.22E-06	4.5E-07			2.57E-06	3.3E-07	2.00E-06	3.6E-07														
CAP16	2011-05-26 15:11	86359	21563	3.07E-06	4.4E-07			3.21E-06	3.2E-07	1.67E-06	3.2E-07														
CAP16	2011-05-28 15:16	85485	21750					1.46E-06	3.1E-07																
CAP17	2011-03-18 16:54	85003	24794							1.81E-06	1.9E-07														
CAP17	2011-03-19 16:34	86207	25789							7.32E-07	1.8E-07														
CAP17	2011-03-22 16:33	86227	25464	7.86E-07	2.2E-07					8.05E-05	2.0E-06														
CAP17	2011-03-23 16:33	88351	25921	3.21E-06	3.5E-07			3.18E-06	2.6E-07	1.42E-04	3.5E-06					1.86E-06	2.1E-07								
CAP17	2011-03-25 16:33	86230	25008					8.87E-07	2.9E-07	3.57E-04	8.5E-06					1.02E-06	1.8E-07								
CAP17	2011-03-26 16:33	86633	25560	4.16E-06	3.7E-07			4.44E-06	2.6E-07	5.07E-04	1.2E-05	2.08E-06	5.3E-07			2.95E-06	3.9E-07								
CAP17	2011-03-27 16:42	85703	25296	4.90E-06	3.7E-07			4.54E-06	2.8E-07	2.59E-04	6.2E-06	2.12E-06	4.2E-07			2.09E-06	2.4E-07								
CAP17	2011-03-28 16:33	86223	25074	1.41E-06	4.7E-07			8.19E-07	2.2E-07	1.46E-04	3.6E-06					8.18E-07	1.9E-07								
CAP17	2011-03-29 16:33	86227	25277	1.97E-06	3.0E-07			1.71E-06	2.2E-07	1.09E-04	2.7E-06					7.38E-07	1.4E-07								
CAP17	2011-03-30 16:34	86209	25506	5.06E-05	2.2E-06	4.35E-06	5.7E-07	5.05E-05	1.2E-06	5.55E-04	1.3E-05	5.47E-06	8.2E-07			7.09E-06	4.8E-07					1.97E-05	3.1E-06	3.73E-05	8.9E-06
CAP17	2011-03-31 16:34	86300	25701	4.01E-05	1.8E-06	3.68E-06	5.7E-07	3.97E-05	9.6E-07	3.95E-04	9.4E-06	7.06E-06	7.4E-07			7.62E-06	5.0E-07					1.80E-05	3.2E-06		
CAP17	2011-04-01 16:35	86093	25049	1.95E-05	9.3E-07	1.76E-06	3.2E-07	1.90E-05	5.7E-07	1.37E-04	3.4E-06	1.41E-06	4.5E-07			2.86E-06	2.6E-07					5.68E-06	4.0E-06	1.50E-05	6.1E-06
CAP17	2011-04-02 16:32	86299	24645	3.51E-05	1.6E-06	3.23E-06	4.5E-07	3.48E-05	8.7E-07	1.86E-04	4.5E-06	3.90E-06	5.6E-07			4.32E-06	3.3E-07					1.40E-05	3.6E-06	2.87E-05	5.6E-06
CAP17	2011-04-03 16:32	89251	26195	2.45E-04	1.0E-05	1.88E-05	1.4E-06	2.35E-04	4.5E-06	9.50E-04	2.2E-05	2.70E-05	2.1E-06			2.52E-05	1.5E-06					1.05E-04	5.8E-06	1.72E-04	9.8E-06
CAP17	2011-04-04 17:24	86112	25920	8.58E-04	3.5E-05	6.63E-05	4.5E-06	8.26E-04	1.5E-05	2.00E-03	4.7E-05	6.39E-05	4.5E-06			7.23E-05	4.0E-06					3.74E-04	1.5E-05	5.93E-04	1.9E-05
CAP17	2011-04-05 17:26	83923	24006																						
CAP17	2011-04-06 16:51	85336	24984	1.60E-04	6.7E-06	1.67E-05	1.3E-06	1.73E-04	3.4E-06	4.14E-04	9.9E-06	1.11E-05	1.1E-06			1.16E-05	7.2E-07					9.29E-05	5.1E-06	1.57E-04	9.7E-06
CAP17	2011-04-07 16:36	89566	26560	2.51E-04	1.0E-05	2.58E-05	1.9E-06	3.05E-04	5.7E-06	4.57E-04	1.1E-05	1.43E-05	1.3E-06			1.54E-05	9.2E-07					1.39E-04	6.7E-06	2.33E-04	1.1E-05
CAP17	2011-04-08 17:32	83517	25255	2.67E-04	1.1E-05	1.56E-05	1.2E-06	2.59E-04	4.9E-06	6.59E-04	1.6E-05	8.52E-06	8.3E-07			9.61E-06	6.3E-07					1.13E-04	6.0E-06	1.85E-04	9.8E-06
CAP17	2011-04-09 16:49	87108	26264	2.75E-04	1.1E-05	1.49E-05	1.2E-06	2.61E-04	4.9E-06	7.35E-04	1.7E-05	7.84E-06	8.7E-07			7.98E-06	5.9E-07					1.01E-04	5.5E-06	1.85E-04	9.8E-06
CAP17	2011-04-10 17:04	85828	25643	2.72E-04	1.1E-05	1.52E-05	1.2E-06	2.64E-04	5.0E-06	3.69E-04	8.8E-06	5.66E-06	7.6E-07			6.69E-06	5.0E-07					1.00E-04	5.5E-06	1.75E-04	9.6E-06
CAP17	2011-04-11 17:08	84115	24401	1.66E-04	6.9E-06	7.81E-06	6.9E-07	1.59E-04	3.1E-06	2.11E-04	5.1E-06	2.15E-06	5.6E-07			2.98E-06	3.2E-07					5.29E-05	3.8E-06	9.98E-05	7.5E-06
CAP17	2011-04-12 16:34	86279	25419	4.46E-05	1.9E-06	1.95E-06	3.0E-07	4.52E-05	1.1E-06	1.33E-04	3.3E-06											1.79E-05	2.7E-06	3.92E-05	9.3E-06
CAP17	2011-04-13 16:36	87337	26111	1.12E-04	4.6E-06	6.55E-06	8.9E-07	1.04E-04	2.1E-06	2.78E-04	6.7E-06					1.16E-06	2.6E-07					3.96E-05	3.2E-06	8.57E-05	1.4E-05
CAP17	2011-04-14 16:56	86945	25243	1.14E-05	6.1E-07			1.14E-05	4.2E-07	2.24E-05	6.8E-07														
CAP17	2011-04-15 17:08	85496	26174	2.80E-04	1.1E-05	1.25E-05	1.0E-06	2.70E-04	5.1E-06	5.18E-04	1.2E-05					1.97E-06	2.9E-07					9.46E-05	5.2E-06	1.59E-04	9.7E-06
CAP17	2011-04-16 16:56	86969	26411	3.20E-04	1.3E-05	1.41E-05	1.1E-06	3.17E-04	6.0E-06	4.24E-04	1.0E-05	1.94E-06	6.3E-07									1.08E-04	5.8E-06	1.92E-04	1.0E-05
CAP17	2011-04-17 17:08	86352	25351	1.97E-04	8.1E-06	7.76E-06	8.1E-07	1.89E-04	3.7E-06	1.63E-04	4.0E-06					1.11E-06	2.7E-07					6.27E-05	4.1E-06	1.09E-04	1.0E-05
CAP17	2011-04-18 17:10	86983	25256	1.22E-05	6.4E-07			1.25E-05	4.4E-07	1.53E-05	5.1E-07											5.34E-06	1.6E-06		
CAP17	2011-04-19 17:25	84473	24676	7.80E-05	3.3E-06	3.21E-06	3.8E-07	7.61E-05	1.6E-06	5.66E-05	1.5E-06											2.61E-05	2.7E-06	4.42E-05	1.1E-05
CAP17	2011-04-20 16:56	85815	25439	4.83E-05	2.1E-06	2.38E-06	3.1E-07	4.82E-05	1.1E-06	5.13E-05	1.4E-06											1.30E-05	1.9E-06		
CAP17	2011-04-21 16:49	86194	25164	2.68E-05	1.2E-06	1.07E-06	2.5E-07	2.59E-05	7.0E-07	2.14E-05	6.5E-07											9.32E-06	1.5E-06	2.39E-05	5.4E-06
CAP17	2011-04-22 16:49	85295	25523	1.19E-04	4.9E-06	3.62E-06	4.0E-07	1.18E-04	2.4E-06	1.30E-04	3.2E-06											3.23E-05	3.0E-06	7.27E-05	9.7E-06
CAP17	2011-04-23 16:33	86222	25413	9.45E-05	4.0E-06	3.07E-06	5.0E-07	9.30E-05	1.9E-06	7.36E-05	1.9E-06											2.53E-05	3.7E-06	5.63E-05	1.7E-05
CAP17	2011-04-24 16:33	86247	25144	4.56E-06	3.5E-07			5.01E-06	2.6E-07	4.65E-06	2.5E-07														
CAP17	2011-04-25 16:33	86230	25434	1.73E-05	8.4E-07			1.76E-05	5.4E-07	1.93E-05	6.1E-07														
CAP17	2011-04-26 16:33	86242	25579	1.96E-05	9.3E-07			1.95E-05	5.8E-07	1.79E-05	5.7E-07											5.82E-06	1.6E-06		

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAP17	2011-04-28 16:33	86236	25027	1.96E-05	9.4E-07			2.00E-05	5.9E-07	9.53E-06	3.8E-07														
CAP17	2011-05-01 16:33	86249	25959	1.33E-05	6.7E-07			1.37E-05	4.6E-07	6.74E-06	3.0E-07														
CAP17	2011-05-04 16:11	87584	25559	5.09E-06	3.7E-07			4.61E-06	2.7E-07	4.32E-06	2.8E-07														
CAP17	2011-05-08 16:33	87655	25835	5.50E-06	3.7E-07			5.35E-06	2.8E-07	1.87E-06	2.1E-07														
CAP17	2011-05-09 17:01	84896	24919	2.03E-06	2.9E-07			2.02E-06	2.1E-07	1.19E-06	2.0E-07														
CAP17	2011-05-11 17:41	85194	25113	2.20E-06	2.7E-07			2.51E-06	2.1E-07	1.10E-06	2.2E-07														
CAP17	2011-05-12 17:25	81861	23882	7.34E-07	2.9E-07			6.91E-07	1.6E-07																
CAP17	2011-05-13 17:02	84833	24710															3.57E-07	9.9E-08						
CAP17	2011-05-16 17:33	84786	25210					5.14E-07	3.5E-07																
CAP17	2011-05-17 17:10	86455	25301	1.33E-06	3.0E-07			1.32E-06	2.2E-07																
CAP17	2011-05-19 17:04	85451	25030															8.97E-07	1.3E-07						
CAP17	2011-05-21 16:33	86244	25579	7.37E-07	3.5E-07			9.77E-07	1.5E-07	6.90E-07	1.7E-07														
CAP17	2011-05-22 16:34	86204	25627							4.80E-07	1.8E-07														
CAP17	2011-05-28 16:33	86235	25334	8.58E-07	3.5E-07																				
NMP01	2011-03-14 10:50	82500	17015															2.00E-05	7.0E-06						
NMP01	2011-03-17 14:03	84720	17433							1.83E-05	1.4E-06														
NMP01	2011-03-18 13:38	243420	49832	3.35E-06	4.1E-07			3.55E-06	3.5E-07	7.49E-05	2.3E-06					6.80E-06	8.2E-07								
NMP01	2011-03-21 9:23	84420	17496	2.27E-04	8.4E-06	3.30E-05	4.1E-06	2.21E-04	5.7E-06	2.06E-03	5.2E-05	1.57E-04	9.9E-06			1.62E-04	1.1E-05					4.28E-05	6.8E-05	1.15E-04	2.5E-05
NMP01	2011-03-22 8:53	89520	18439	1.54E-04	6.1E-06	2.18E-05	2.7E-06	1.51E-04	4.3E-06	2.01E-03	5.6E-05	9.57E-05	7.3E-06			1.10E-04	8.5E-06								
NMP01	2011-03-23 9:50	84300	17297	1.45E-05	1.5E-06			1.29E-05	1.4E-06	7.73E-04	2.2E-05	7.81E-06	2.2E-06			8.39E-06	1.4E-06								
NMP01	2011-03-24 9:20	87000	18011							8.23E-04	2.2E-05														
NMP01	2011-03-25 9:35	83700	17219							3.69E-04	1.1E-05														
NMP01	2011-03-26 8:55	171900	35419	2.81E-06	6.0E-07			3.42E-06	6.9E-07	6.27E-04	1.6E-05														
NMP01	2011-03-28 8:45	93780	19315	3.70E-06	8.5E-07			3.99E-06	9.1E-07	6.33E-04	2.1E-05														
NMP01	2011-03-29 10:48	80520	16595	1.37E-05	1.6E-06			1.56E-05	1.5E-06	6.32E-04	2.1E-05														
NMP01	2011-03-30 9:10	93900	19271	1.53E-04	6.1E-06	1.66E-05	2.8E-06	1.60E-04	4.6E-06	2.02E-03	6.3E-05					3.26E-05	5.2E-06					6.73E-05	2.5E-05	9.48E-05	3.3E-05
NMP01	2011-03-31 11:15	80100	16388	3.06E-04	1.1E-05	3.04E-05	3.8E-06	3.11E-04	7.9E-06	3.60E-03	1.1E-04	6.97E-05	9.3E-06			7.52E-05	7.9E-06					2.10E-04	4.1E-05	1.91E-04	6.5E-05
NMP01	2011-04-01 9:30	84900	17414	2.79E-04	1.0E-05	2.02E-05	3.9E-06	2.84E-04	6.9E-06	3.30E-03	9.2E-05	4.15E-05	9.7E-06			6.75E-05	7.5E-06					1.63E-04	1.6E-05	2.59E-04	4.2E-05
NMP01	2011-04-02 9:05	179700	36874	5.91E-05	2.4E-06	4.50E-06	9.8E-07	6.18E-05	1.9E-06	7.57E-04	2.1E-05					9.67E-06	1.7E-06					4.08E-05	2.3E-05	6.72E-05	1.2E-05
NMP01	2011-04-04 11:05	77400	16060	1.57E-05	1.2E-06			1.64E-05	1.3E-06	2.18E-04	7.2E-06														
NMP01	2011-04-05 8:40	88200	18084	1.28E-04	5.2E-06	9.11E-06	2.0E-06	1.24E-04	3.8E-06	6.74E-04	2.0E-05														
NMP01	2011-04-06 9:10	95100	19564	3.51E-05	1.9E-06			3.46E-05	1.7E-06	3.84E-04	1.2E-05														
NMP01	2011-04-07 11:40	75600	15553	1.85E-05	1.4E-06	3.49E-06	1.9E-06	1.83E-05	1.3E-06	2.21E-04	7.4E-06														
NMP01	2011-04-08 8:45	87600	18038	4.10E-05	2.2E-06			4.49E-05	2.0E-06	2.68E-04	9.0E-06														
NMP01	2011-04-09 9:10	178380	36776	5.99E-06	5.0E-07			5.59E-06	4.8E-07	2.76E-05	1.4E-06														
NMP01	2011-04-11 10:50	96000	19722	1.19E-05	1.4E-06			1.22E-05	1.1E-06	4.82E-05	2.8E-06														
NMP01	2011-04-12 13:40	67800	14010	1.48E-04	6.4E-06	9.29E-06	2.6E-06	1.49E-04	4.9E-06	3.72E-04	1.4E-05														
NMP01	2011-04-13 8:35	86100	17801	1.18E-04	5.0E-06			1.14E-04	3.7E-06	2.96E-04	1.1E-05														
NMP01	2011-04-14 8:40	85800	18120	7.38E-05	3.5E-06			6.92E-05	2.8E-06	1.21E-04	5.7E-06														
NMP01	2011-04-15 8:40	273360	56005	6.46E-05	2.4E-06	1.87E-06	6.6E-07	6.68E-05	1.7E-06	7.05E-05	2.4E-06											2.41E-05	5.7E-06		
NMP01	2011-04-18 12:40	73500	15110	1.13E-04	4.8E-06			1.18E-04	3.9E-06	9.67E-05	4.3E-06											4.53E-05	1.6E-05	7.38E-05	3.4E-05
NMP01	2011-04-19 9:10	85500	17675	7.45E-05	3.4E-06			7.68E-05	2.8E-06	7.87E-05	4.2E-06														
NMP01	2011-04-20 9:00	85500	17629	2.28E-05	1.4E-06			2.17E-05	1.4E-06	2.64E-05	2.2E-06														
NMP01	2011-04-21 8:50	86100	17782	4.99E-05	2.5E-06			5.00E-05	2.2E-06	6.59E-05	4.1E-06														
NMP01	2011-04-22 8:50	86100	17660	1.89E-05	1.3E-06			1.77E-05	1.2E-06	2.15E-05	2.2E-06														
NMP01	2011-04-23 8:50	259200	53485	1.29E-05	7.0E-07			1.28E-05	6.2E-07	1.19E-05	1.0E-06														
NMP01	2011-04-29 9:05	87120	17904	2.55E-05	1.9E-06			1.93E-05	1.1E-06	1.30E-05	1.4E-06														
NMP01	2011-04-30 9:18	171720	35180	8.09E-06	7.8E-07			7.11E-06	4.7E-07	5.69E-06	6.8E-07														
NMP01	2011-05-02 9:05	84600	17580	1.14E-05	1.5E-06			1.06E-05	1.2E-06									1.82E-04	6.0E-05						
NMP01	2011-05-03 8:40	94200	19504	7.47E-06	1.2E-06			6.72E-06	8.8E-07																

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
NMP01	2011-05-04 10:55	77100	15763	5.04E-06	1.3E-06			7.91E-06	1.1E-06																
NMP01	2011-05-05 8:25	86700	17836	9.65E-06	1.3E-06			8.53E-06	1.1E-06																
NMP01	2011-05-07 9:15	171000	35284					2.21E-06	4.6E-07																
NMP01	2011-05-09 8:50	87000	17880	3.40E-06	1.1E-06			3.63E-06	7.4E-07																
NMP01	2011-05-10 9:05	86100	17817	3.08E-06	8.4E-07																				
NMP01	2011-05-11 9:05	86400	17856					2.80E-06	5.7E-07									3.24E-05	1.4E-05						
NMP01	2011-05-13 9:20	270960	53395	1.23E-06	3.9E-07			2.25E-06	3.4E-07																
NMP01	2011-05-16 12:38	100440	20668	4.42E-06	1.1E-06			2.24E-06	8.1E-07																
NMP01	2011-05-26 9:25	85500	17546															1.21E-04	2.6E-05						
NMP01	2011-05-28 10:18	96720	19981					1.86E-06	6.0E-07																
NMP02	2011-03-21 10:33	606240	1766	2.24E-05	5.7E-06			2.12E-05	3.2E-06																
NMP02	2011-03-28 11:01	617940	2003	5.19E-04	4.2E-05			4.26E-04	1.2E-05																
NMP02	2011-04-04 15:08	596220	1865	4.27E-04	3.5E-05			3.38E-04	1.0E-05																
NMP02	2011-04-11 12:55	614460	1883	2.65E-04	2.2E-05			2.06E-04	7.5E-06																
NMP02	2011-04-18 15:40	594480	1843	3.60E-04	3.0E-05			2.87E-04	9.4E-06									9.83E+01	2.1E+01						
NMP02	2011-04-25 12:52	604500	1808	1.58E-04	1.4E-05			1.26E-04	5.9E-06															9.32E-04	3.6E-04
NMP02	2011-05-02 12:51	596820	1744	4.83E-05	6.2E-06			3.73E-05	3.5E-06									5.11E+00	8.6E-01						
NMP02	2011-05-09 10:44	600960	1818	1.63E-05	5.3E-06			2.42E-05	3.5E-06																
NMP02	2011-05-16 9:44	615300	1841					9.35E-06	3.8E-06																
NMP03	2011-03-16 20:23	1379220	28632	1.31E-05	8.6E-07			1.27E-05	6.9E-07	2.15E-04	9.1E-06														
NMP03	2011-04-01 19:30	1125000	23361	1.21E-04	5.2E-06			1.17E-04	3.4E-06	4.10E-04	1.9E-05							7.15E-04	2.2E-04			4.68E-05	1.6E-05		
NMP03	2011-04-14 20:00	603900	12537	2.18E-04	9.5E-06			1.97E-04	5.9E-06	2.57E-04	1.9E-05														
NMP03	2011-04-21 19:45	1296300	26912	9.79E-05	4.3E-06			9.19E-05	2.8E-06	2.94E-05	1.0E-05											3.49E-05	1.1E-05		
NMP03	2011-05-06 19:50	1642200	32519	8.17E-06	6.1E-07			8.95E-06	5.7E-07																
NMP04	2011-03-17 12:30	604800	12574							1.36E-05	1.7E-06														
NMP04	2011-03-24 12:30	597600	12380	1.71E-05	1.6E-06			1.36E-05	1.4E-06	3.07E-04	1.2E-05														
NMP04	2011-03-31 10:30	610800	12671	1.66E-04	7.5E-06	8.34E-06	3.1E-06	1.72E-04	5.1E-06	5.75E-04	2.1E-05											5.23E-05	3.6E-05		
NMP04	2011-04-07 12:10	593400	12305	2.72E-04	1.1E-05	1.53E-05	3.3E-06	2.61E-04	7.3E-06	2.70E-04	1.2E-05											9.76E-05	2.5E-05	1.58E-04	4.0E-05
NMP04	2011-04-14 9:00	599400	12454	1.58E-04	7.2E-06	1.23E-05	4.0E-06	1.54E-04	4.8E-06	1.06E-04	6.6E-06											6.84E-05	1.7E-05		
NMP04	2011-04-21 7:30	604800	12544	4.28E-05	2.6E-06			4.03E-05	2.3E-06	1.66E-05	3.0E-06														
NMP04	2011-04-28 7:30	604800	12559					5.31E-06	1.0E-06																
NMP04	2011-05-05 7:30	603000	12522	6.33E-06	1.2E-06			5.40E-06	8.9E-07																
NMP06	2011-03-16 16:01	604800	12702					2.08E-06	9.0E-07	2.76E-03	9.5E-05														
NMP06	2011-03-23 16:02	604680	12409	2.52E-05	1.7E-06			2.03E-05	1.7E-06	1.63E-03	5.7E-05					1.39E-05	3.1E-06								
NMP06	2011-03-30 16:01	604860	12559	1.81E-05	1.4E-06			1.93E-05	1.4E-06	3.53E-04	1.3E-05														
NMP06	2011-04-06 16:03	604620	12694	2.52E-05	1.8E-06			2.46E-05	1.5E-06	1.11E-04	4.9E-06														
NMP06	2011-04-13 16:01	604740	12552	2.38E-05	1.7E-06			2.45E-05	1.4E-06	5.20E-05	3.3E-06														
NMP06	2011-04-20 16:01	604800	12559	2.48E-05	1.9E-06			2.25E-05	1.7E-06	4.97E-05	4.5E-06														
NMP06	2011-04-27 16:02	604680	12552	3.57E-06	1.4E-06																				
NMP06	2011-05-11 16:03	604620	12409															9.71E-05	3.4E-05						
NMP07	2011-03-16 12:19	613140	12731					2.22E-06	9.4E-07	1.85E-03	6.4E-05														
NMP07	2011-03-23 14:40	588900	12290	3.23E-05	2.1E-06			2.67E-05	2.3E-06	2.44E-03	8.4E-05					1.83E-05	4.5E-06								
NMP07	2011-03-30 10:18	611640	12709	3.08E-05	2.1E-06			2.63E-05	1.8E-06	3.81E-04	1.4E-05														
NMP07	2011-04-06 12:14	594660	12342	3.70E-05	2.2E-06			3.83E-05	1.9E-06	1.27E-04	5.7E-06														
NMP07	2011-04-13 9:26	614880	12261	7.58E-05	3.9E-06			7.43E-05	3.0E-06	9.21E-05	4.9E-06														
NMP07	2011-04-20 12:16	587700	12414	3.54E-05	2.3E-06			3.24E-05	2.0E-06	5.29E-05	3.9E-06														
NMP07	2011-04-27 7:33	620220	12515	6.61E-06	1.2E-06			5.52E-06	1.1E-06																
NMP07	2011-05-18 8:29	1216860	23832					1.02E-06	5.1E-07																
NMP08	2011-03-18 7:45	604800	12537							3.22E-05	2.3E-06														
NMP08	2011-03-25 7:45	604800	12416	1.99E-05	1.6E-06			2.11E-05	1.5E-06	3.85E-04	1.5E-05														

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
NMP08	2011-04-01 7:45	604800	12972	4.92E-04	1.9E-05	3.93E-05	4.2E-06	4.75E-04	1.1E-05	5.08E-04	1.8E-05					3.47E-05	9.0E-06					2.34E-04	2.2E-05	2.77E-04	1.0E-04
NMP08	2011-04-08 7:45	604800	12138	1.37E-04	6.4E-06			1.25E-04	4.3E-06	2.67E-04	1.1E-05														
NMP08	2011-04-15 7:45	604800	12529	1.60E-04	7.3E-06			1.39E-04	4.7E-06	1.44E-04	8.9E-06											8.11E-05	1.9E-05		
NMP08	2011-04-22 7:45	605400	12174	7.22E-05	3.8E-06			7.39E-05	3.0E-06	4.31E-05	4.1E-06														
NMP08	2011-04-29 7:55	604500	13233	1.04E-05	1.3E-06			9.79E-06	1.2E-06																
NMP08	2011-05-06 7:50	605100	12281					4.54E-06	1.2E-06									2.29E-04	5.9E-05						
NMP08	2011-05-13 7:55	604200	12522							1.79E-05	4.7E-06							2.63E-04	8.8E-05						
NMP09	2011-03-10 8:11	604260	12259															4.49E-05	1.2E-05						
NMP09	2011-03-17 8:04	603960	12679							6.18E-06	1.2E-06							1.18E-05	2.7E-06						
NMP09	2011-03-24 7:51	601140	12626	9.36E-06	1.4E-06			1.13E-05	1.0E-06	2.17E-04	9.1E-06														
NMP09	2011-03-31 6:51	605280	12424	1.75E-04	7.8E-06	1.23E-05	3.6E-06	1.69E-04	5.1E-06	4.87E-04	1.8E-05					2.44E-05	5.2E-06					7.29E-05	1.7E-05		
NMP09	2011-04-07 7:01	605640	11717	2.59E-04	1.1E-05			2.43E-04	7.0E-06	1.90E-04	9.3E-06											6.50E-05	2.3E-05		
NMP09	2011-04-14 7:15	603600	12672	1.17E-04	5.6E-06			1.19E-04	4.0E-06	6.23E-05	4.3E-06											3.75E-05	1.4E-05		
NMP09	2011-04-21 6:55	604680	12694	2.43E-05	1.9E-06			2.59E-05	1.8E-06																
NMP09	2011-05-05 7:10	604500	12687					3.39E-06	1.1E-06																
NMP10	2011-03-18 19:07	607380	12604	9.40E-05	4.7E-06	1.14E-05	4.0E-06	9.50E-05	3.5E-06	9.76E-04	3.6E-05					2.15E-04	3.6E-05								
NMP10	2011-03-25 19:50	604200	12544	1.58E-04	7.2E-06	1.81E-05	4.5E-06	1.53E-04	4.7E-06	1.58E-03	5.7E-05											8.03E-05	3.0E-05	1.02E-04	4.8E-05
NMP10	2011-04-01 19:40	604800	12567	2.01E-04	8.8E-06			1.87E-04	5.7E-06	7.37E-04	3.7E-05											7.45E-05	2.3E-05		
NMP10	2011-04-08 19:45	603240	12507	1.23E-04	6.1E-06			1.14E-04	4.1E-06	3.47E-04	2.9E-05														
NMP10	2011-04-15 19:20	617400	12813	1.36E-04	6.3E-06			1.27E-04	4.3E-06	1.09E-04	1.4E-05														
NMP10	2011-04-22 22:51	591060	12275	1.49E-04	6.9E-06			1.48E-04	4.7E-06	7.19E-05	1.1E-05														
NMP10	2011-04-29 19:02	607980	12619	4.95E-05	2.9E-06			4.67E-05	2.4E-06																
NMP10	2011-05-06 19:55	600900	12462	1.31E-05	1.4E-06			1.70E-05	1.3E-06																
NMP10	2011-05-13 18:55	605580	12567	4.23E-06	1.2E-06			4.15E-06	6.8E-07									7.30E-03	2.0E-03						
NMP11	2011-03-18 9:20	622500	12786							9.93E-06	3.7E-06														
NMP11	2011-03-25 14:20	590100	12253	1.71E-05	1.4E-06			1.58E-05	1.3E-06	1.39E-04	7.2E-06														
NMP11	2011-04-01 10:20	609780	12656	6.66E-05	3.5E-06			7.03E-05	2.8E-06	4.62E-04	2.0E-05														
NMP11	2011-04-08 11:45	679200	14259	1.73E-04	1.4E-05			1.36E-04	3.7E-06	2.46E-04	1.2E-05														
NMP11	2011-04-16 8:31	621300	12903	1.79E-04	8.0E-06			1.68E-04	5.2E-06	1.32E-04	2.6E-05													2.18E-04	6.1E-05
NMP11	2011-04-23 13:18	614520	12761	1.12E-04	5.4E-06			1.01E-04	3.8E-06	5.63E-05	9.0E-06														
NMP11	2011-04-30 16:05	601800	12499	2.49E-05	2.0E-06			2.34E-05	1.7E-06	2.87E-05	8.7E-06														
NMP11	2011-05-07 15:25	604500	12559	7.85E-06	1.6E-06			6.52E-06	1.1E-06																
NMP11	2011-05-14 15:25	581460	12073	4.24E-06	9.2E-07			6.47E-06	9.6E-07																
NMP11	2011-05-21 9:00	699000	14353					1.38E-06	5.4E-07																
NMP12	2011-03-20 7:05	690900	12552					2.01E-06	8.6E-07	2.84E-04	1.3E-05														
NMP12	2011-03-28 7:05	604800	12559	1.41E-04	6.5E-06	1.07E-05	2.6E-06	1.24E-04	4.3E-06	1.04E-03	3.6E-05					2.42E-05	5.3E-06								
NMP12	2011-04-04 7:10	606240	12439	1.54E-04	7.1E-06	6.51E-06	3.6E-06	1.62E-04	5.0E-06	3.63E-04	1.4E-05											7.34E-05	1.2E-05		
NMP12	2011-04-11 7:38	603720	12387	1.09E-04	5.1E-06	7.72E-06	2.8E-06	1.01E-04	3.6E-06	1.15E-04	5.6E-06														
NMP12	2011-04-18 7:27	714780	14839	3.65E-05	2.2E-06			3.63E-05	1.8E-06	2.19E-05	3.2E-06														
NMP12	2011-05-02 7:35	804300	16693					2.19E-06	7.9E-07																
NMP12	2011-05-11 15:05	356580	7317															8.03E-05	2.1E-05						
NMP13	2011-03-21 8:37	611820	13407	3.77E-06	1.0E-06			4.83E-06	9.2E-07	2.27E-04	8.9E-06														
NMP13	2011-03-28 10:34	597300	12906	1.39E-04	6.4E-06	1.25E-05	2.5E-06	1.39E-04	4.4E-06	9.79E-04	3.5E-05	2.43E-05	6.2E-06			2.63E-05	4.3E-06					7.75E-05	4.9E-05	1.07E-04	3.4E-05
NMP13	2011-04-04 8:30	600480	12462	1.84E-04	7.9E-06	1.06E-05	3.5E-06	1.94E-04	5.6E-06	4.47E-04	1.7E-05											3.85E-05	2.7E-05	9.79E-05	3.4E-05
NMP13	2011-04-11 7:20	601620	12492	1.48E-04	6.9E-06			1.27E-04	4.3E-06	1.46E-04	6.7E-06														
NMP13	2011-04-18 6:28	615480	12776	5.05E-05	2.9E-06			5.39E-05	2.5E-06	2.54E-05	2.6E-06														
NMP13	2011-04-25 9:27	593100	12467					2.24E-06	6.2E-07																
NMP13	2011-05-02 6:12	605400	12702	4.03E-06	1.1E-06			2.71E-06	1.0E-06																
NMP14	2011-03-04 7:31	604800	12266					1.72E-06	8.4E-07																
NMP14	2011-03-18 7:29	604920	12559							2.13E-04	9.8E-06														

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
NMP14	2011-03-25 7:31	604620	12409	2.82E-05	1.9E-06			2.76E-05	1.6E-06	5.18E-04	2.0E-05														
NMP14	2011-04-01 7:28	604680	12266	1.05E-04	5.2E-06			1.00E-04	3.7E-06	5.25E-04	2.2E-05													1.03E-04	5.1E-05
NMP14	2011-04-08 7:26	604800	11492	8.81E-05	4.5E-06			8.33E-05	3.3E-06	2.27E-04	1.2E-05														
NMP14	2011-04-15 7:26	604980	12131	1.98E-04	8.8E-06			1.85E-04	5.7E-06	2.29E-04	1.4E-05											8.60E-05	2.5E-05		
NMP14	2011-04-22 7:29	604620	12266	8.05E-05	4.2E-06			7.68E-05	3.2E-06	4.95E-05	8.0E-06							7.48E-04	2.8E-04						
NMP14	2011-04-29 7:26	604860	12131	1.88E-05	1.5E-06			1.97E-05	1.5E-06																
NMP14	2011-05-06 7:27	604860	12409	1.32E-05	1.9E-06			1.23E-05	9.2E-07																
NMP15	2011-03-15 15:55	595800	12365					1.83E-06	6.7E-07	5.27E-04	1.9E-05							2.37E-05	4.9E-06						
NMP15	2011-03-22 13:25	586500	12185	9.08E-06	1.1E-06			8.78E-06	1.3E-06	6.02E-04	2.2E-05														
NMP15	2011-03-29 8:20	606000	12581	2.04E-04	8.9E-06	1.73E-05	5.1E-06	1.97E-04	5.7E-06	1.28E-03	4.5E-05					3.08E-05	6.2E-06					8.46E-05	3.0E-05	1.21E-04	3.5E-05
NMP15	2011-04-05 8:40	615000	12485	1.01E-04	5.0E-06			9.39E-05	3.5E-06	2.96E-04	1.2E-05														
NMP15	2011-04-12 11:30	593100	12445	1.07E-04	5.1E-06			1.08E-04	3.7E-06	1.37E-04	6.3E-06											2.65E-05	1.8E-05		
NMP15	2011-04-19 8:15	604800	12559	4.32E-05	2.5E-06			4.41E-05	2.2E-06	3.32E-05	2.7E-06														
NMP15	2011-04-26 8:15	604800	12559	6.34E-06	1.5E-06			6.29E-06	1.1E-06																
NMP15	2011-05-03 8:15	604800	12559					2.96E-06	1.0E-06									1.10E-04	3.5E-05						
NMP15	2011-05-10 8:15	604800	12559															5.26E-05	1.6E-05						
NMP17	2011-03-15 13:48	601320	12484	5.97E-06	1.4E-06			5.31E-06	1.2E-06	8.23E-04	2.9E-05					2.08E-05	6.1E-06								
NMP17	2011-03-22 12:53	671820	13950	8.78E-06	1.2E-06			8.77E-06	1.2E-06	5.51E-04	1.9E-05					9.95E-06	2.2E-06								
NMP17	2011-03-30 7:33	538140	11042	1.27E-04	6.1E-06			1.30E-04	4.5E-06	1.13E-03	4.0E-05					2.18E-05	3.8E-06					5.44E-05	5.1E-05		
NMP17	2011-04-05 13:05	598200	12424	9.03E-05	4.4E-06			9.40E-05	3.4E-06	2.87E-04	1.0E-05											2.21E-05	1.2E-05		
NMP17	2011-04-12 11:19	616620	12798	1.06E-04	5.0E-06			1.08E-04	3.7E-06	1.48E-04	6.6E-06											6.20E-05	1.3E-05	1.03E-04	3.5E-05
NMP17	2011-04-19 14:39	600660	12335	3.46E-05	2.2E-06			3.91E-05	2.1E-06	3.17E-05	2.3E-06														
NMP17	2011-04-26 13:32	670380	13912	4.26E-06	9.3E-07			4.86E-06	6.6E-07																
NMP17	2011-05-04 7:48	539700	11079	4.75E-06	1.8E-06			4.31E-06	1.2E-06																
NMP18	2011-03-17 17:09	604440	12543	4.69E-06	1.2E-06			5.14E-06	1.0E-06	1.07E-03	3.8E-05														
NMP18	2011-03-24 17:05	594060	12484	6.94E-05	3.8E-06			6.42E-05	2.9E-06	1.08E-03	3.7E-05					3.39E-05	6.5E-06								
NMP18	2011-03-31 14:08	586800	12185	1.81E-04	8.1E-06	1.38E-05	3.2E-06	1.82E-04	5.4E-06	9.60E-04	3.4E-05											6.17E-05	4.5E-05		
NMP18	2011-04-07 9:12	601860	12492	9.49E-05	4.8E-06	1.06E-05	3.4E-06	9.05E-05	3.4E-06	2.06E-04	9.7E-06														
NMP18	2011-04-14 8:24	604440	12687	1.23E-04	5.8E-06			1.21E-04	4.0E-06	1.15E-04	6.3E-06											3.71E-05	1.5E-05		
NMP18	2011-04-21 8:19	641040	13155	3.60E-05	3.2E-06			3.02E-05	1.4E-06	1.43E-05	1.7E-06							3.17E-05	8.7E-06						
NMP18	2011-04-28 18:25	568740	11804	6.25E-06	1.4E-06			5.01E-06	1.1E-06																
NMP18	2011-05-05 8:25	639540	12824	3.52E-06	1.2E-06																				
NMP21	2011-03-15 9:00	612600	12572	5.91E-06	1.4E-06			5.35E-06	1.1E-06	2.02E-04	8.9E-06														
NMP21	2011-03-22 11:10	597000	11862	8.67E-06	3.0E-06			1.12E-05	1.2E-06	5.84E-04	2.4E-05														
NMP21	2011-03-29 9:00	606900	12453	1.38E-04	6.5E-06	1.16E-05	2.5E-06	1.42E-04	4.7E-06	1.17E-03	4.0E-05					1.82E-05	5.4E-06					7.44E-05	1.4E-05		
NMP21	2011-04-05 9:35	602700	12372	7.91E-05	4.0E-06			7.43E-05	3.0E-06	2.21E-04	8.4E-06														
NMP21	2011-04-12 9:00	604800	12402	9.19E-05	4.5E-06			9.42E-05	3.4E-06	1.31E-04	6.2E-06														
NMP21	2011-04-19 9:00	609000	12498	3.83E-05	2.3E-06			3.51E-05	2.0E-06	2.83E-05	2.7E-06														
NMP21	2011-04-26 10:10	602400	12357					6.24E-06	1.2E-06																
NMP21	2011-05-03 9:30	599700	12298	5.56E-06	1.5E-06			3.51E-06	1.2E-06																
NMP22	2011-03-16 7:36	604560	12694							6.60E-04	2.4E-05														
NMP22	2011-03-23 7:32	604200	12679	7.87E-06	1.2E-06			1.15E-05	1.3E-06	3.98E-04	1.5E-05														
NMP22	2011-03-30 7:22	605940	12724	2.61E-04	1.1E-05	1.27E-05	3.1E-06	2.43E-04	6.9E-06	1.13E-03	3.9E-05	2.87E-05	5.8E-06			3.13E-05	4.6E-06					1.22E-04	5.3E-05	1.37E-04	4.0E-05
NMP22	2011-04-06 7:41	604080	12687	1.10E-04	5.3E-06	6.81E-06	2.5E-06	1.03E-04	3.6E-06	2.76E-04	1.1E-05											4.23E-05	2.5E-05		
NMP22	2011-04-13 7:29	604920	12702	1.28E-04	5.8E-06			1.27E-04	4.1E-06	1.37E-04	6.6E-06														
NMP22	2011-04-20 7:31	603540	12672	4.49E-05	2.7E-06			4.22E-05	2.3E-06	2.49E-05	3.6E-06														
NMP22	2011-05-04 7:30	604800	12702	2.46E-06	9.7E-07			2.16E-06	8.2E-07																
NMP22	2011-05-11 7:30	604200	12687							8.98E-06	2.1E-06														
NMP23	2011-03-15 18:06	675900	14191	5.44E-06	1.1E-06			7.97E-06	1.1E-06	1.19E-03	4.2E-05					1.58E-05	3.6E-06								
NMP23	2011-03-23 13:55	517140	10613	1.28E-05	1.5E-06			1.19E-05	1.7E-06	1.54E-03	5.4E-05														

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
NMP23	2011-03-29 13:38	597600	12402	2.16E-05	1.6E-06	4.17E-06	2.4E-06	2.27E-05	1.5E-06	5.15E-04	1.9E-05														
NMP23	2011-04-05 11:40	603600	12672	1.21E-05	1.2E-06			1.20E-05	1.1E-06	9.37E-05	4.2E-06														
NMP23	2011-04-12 11:22	604260	12544	8.95E-05	5.0E-06			8.48E-05	3.2E-06	7.00E-05	4.0E-06														
NMP23	2011-04-19 11:15	611400	12549	1.82E-05	1.5E-06			1.70E-05	1.4E-06	2.23E-05	2.5E-06														
NMP23	2011-04-26 13:07	597660	12410	9.21E-06	1.8E-06			9.38E-06	1.2E-06																
NMP25	2011-03-18 16:14	92820	19881															7.40E-04	2.8E-04						
NMP25	2011-03-20 18:59	68880	14502							2.69E-04	1.4E-05														
NMP25	2011-03-21 14:11	99420	20941							3.48E-03	1.1E-04														
NMP25	2011-03-22 17:51	82740	17408							6.44E-04	2.5E-05														
NMP25	2011-03-23 16:59	90120	19919	7.59E-06	1.3E-06			6.22E-06	8.9E-07	2.50E-04	1.2E-05														
NMP25	2011-03-24 18:04	79740	16767	8.73E-06	1.4E-06			6.98E-06	1.2E-06	1.40E-03	4.7E-05														
NMP25	2011-03-25 16:17	103380	21726	5.73E-05	2.7E-06			5.29E-05	2.2E-06	8.31E-04	2.9E-05														
NMP25	2011-03-26 21:04	78420	16493	3.44E-05	2.4E-06			2.99E-05	2.2E-06	4.55E-03	1.4E-04														
NMP25	2011-03-27 18:54	84060	17684					4.92E-06	1.1E-06	4.68E-03	1.5E-04														
NMP25	2011-03-28 18:19	79680	16774	3.45E-06	1.1E-06			2.57E-06	1.1E-06	4.38E-03	1.4E-04														
NMP25	2011-03-29 16:31	83820	17655	2.73E-05	1.8E-06			3.03E-05	1.9E-06	2.45E-03	7.8E-05														
NMP25	2011-03-30 15:51	95220	20014	5.22E-05	2.6E-06			5.01E-05	2.2E-06	3.19E-03	1.0E-04														
NMP25	2011-03-31 18:21	82620	17469	6.48E-04	2.0E-05	5.88E-05	6.9E-06	6.16E-04	1.4E-05	1.88E-03	6.5E-05											3.26E-04	4.0E-05	3.37E-04	6.1E-05
NMP25	2011-04-01 17:21	88620	18641	1.01E-04	4.4E-06			1.01E-04	3.4E-06	2.49E-03	8.2E-05														
NMP25	2011-04-02 18:01	89400	18783	1.50E-04	6.0E-06	1.10E-05	4.3E-06	1.54E-04	4.5E-06	5.60E-03	1.8E-04											6.43E-05	3.8E-05	1.51E-04	4.6E-05
NMP25	2011-04-03 18:55	76860	18160	1.42E-04	5.6E-06	1.21E-05	4.8E-06	1.50E-04	4.3E-06	2.25E-03	5.9E-05											8.47E-05	5.1E-05	1.02E-04	4.3E-05
NMP25	2011-04-04 16:20	92100	19498	1.03E-04	4.3E-06			1.04E-04	3.3E-06	2.17E-03	5.7E-05											4.50E-05	4.3E-05	8.79E-05	3.2E-05
NMP25	2011-04-05 17:58	88380	18568	6.10E-05	2.9E-06			6.25E-05	2.4E-06	1.41E-03	3.8E-05														
NMP25	2011-04-06 18:34	91920	19307	9.39E-05	4.0E-06	5.48E-06	2.2E-06	9.56E-05	3.1E-06	1.55E-03	4.1E-05											2.94E-05	4.0E-05		
NMP25	2011-04-07 20:09	77040	16182	5.05E-05	2.6E-06	6.19E-06	2.5E-06	5.41E-05	2.4E-06	1.40E-03	3.8E-05														
NMP25	2011-04-08 17:35	91320	19156	8.34E-05	3.6E-06			8.43E-05	2.9E-06	1.84E-03	4.8E-05											7.15E-05	2.9E-05		
NMP25	2011-04-09 19:00	85560	17969	1.18E-04	4.8E-06			1.23E-04	3.7E-06	1.35E-03	3.6E-05														
NMP25	2011-04-10 18:50	78840	16540	1.49E-04	5.9E-06	7.48E-06	2.5E-06	1.51E-04	4.4E-06	1.73E-03	4.5E-05											5.14E-05	3.5E-05		
NMP25	2011-04-11 16:47	90600	19012	1.13E-04	4.6E-06	7.27E-06	2.0E-06	1.17E-04	3.6E-06	1.44E-03	3.8E-05											3.19E-05	2.7E-05	7.35E-05	2.4E-05
NMP25	2011-04-12 17:59	89220	18783	8.88E-05	5.4E-06			7.69E-05	2.3E-06	4.34E-04	1.8E-05														
NMP25	2011-04-13 18:51	84300	17698	7.29E-05	4.6E-06			6.67E-05	2.1E-06	2.77E-04	1.3E-05														
NMP25	2011-04-14 18:20	85200	17908	1.31E-04	5.6E-06			1.30E-04	3.9E-06	5.49E-04	2.1E-05											6.72E-05	2.5E-05		
NMP25	2011-04-15 18:03	90660	19052	2.45E-04	9.1E-06	1.06E-05	4.0E-06	2.49E-04	6.1E-06	6.08E-04	2.2E-05											7.62E-05	2.6E-05		
NMP25	2011-04-16 19:17	88860	17999	1.99E-04	7.6E-06			2.14E-04	5.5E-06	7.10E-04	2.5E-05											8.38E-05	2.8E-05		
NMP25	2011-04-17 19:59	81720	17892	1.91E-04	7.4E-06			1.96E-04	5.2E-06	7.41E-04	2.5E-05											6.00E-05	2.8E-05		
NMP25	2011-04-18 18:44	81780	17198	2.39E-04	9.0E-06			2.40E-04	6.1E-06	6.75E-04	2.3E-05											1.11E-04	3.1E-05		
NMP25	2011-04-19 17:30	91620	19261	3.42E-04	1.2E-05	1.09E-05	3.7E-06	3.39E-04	7.8E-06	5.50E-04	1.9E-05											1.07E-04	2.8E-05	1.55E-04	4.4E-05
NMP25	2011-04-20 19:01	80940	17025	2.97E-04	1.1E-05			2.98E-04	7.2E-06	4.14E-04	1.6E-05											1.16E-04	1.6E-05	1.06E-04	4.9E-05
NMP25	2011-04-21 17:33	90000	18930	2.65E-04	9.8E-06			2.68E-04	6.5E-06	4.51E-04	1.6E-05											1.06E-04	2.5E-05	6.52E-05	4.0E-05
NMP25	2011-04-22 18:35	88080	18512	2.69E-04	1.0E-05			2.75E-04	6.6E-06	5.27E-04	1.8E-05											9.83E-05	2.2E-05	1.10E-04	5.7E-05
NMP25	2011-04-23 19:05	85020	17841	2.71E-04	1.0E-05			2.86E-04	6.9E-06	3.91E-04	1.4E-05											6.95E-05	1.4E-05	9.51E-05	3.7E-05
NMP25	2011-04-24 18:50	76920	16127	2.59E-04	9.7E-06			2.67E-04	6.7E-06	3.26E-04	1.2E-05											9.83E-05	2.6E-05	1.44E-04	4.0E-05
NMP25	2011-04-25 16:16	89340	18738	2.46E-04	1.4E-05			2.22E-04	5.1E-06	2.93E-04	1.6E-05														
NMP25	2011-04-26 17:08	91620	19316	2.51E-04	1.4E-05			2.30E-04	5.3E-06	2.37E-04	1.4E-05											1.08E-04	1.8E-05	1.66E-04	4.5E-05
NMP25	2011-04-27 18:55	84240	24066	2.22E-04	1.2E-05			2.07E-04	4.6E-06	2.15E-04	1.1E-05							1.14E-03	4.6E-04			8.48E-05	1.4E-05		
NMP25	2011-04-28 18:22	80460	23091	2.41E-04	1.3E-05			2.16E-04	4.8E-06	1.47E-04	9.6E-06											5.60E-05	1.3E-05	9.69E-05	3.4E-05
NMP25	2011-04-29 16:46	92160	26457	1.80E-04	6.3E-06			1.84E-04	4.7E-06	1.01E-04	1.3E-05													9.52E-05	3.3E-05
NMP25	2011-04-30 18:25	86580	24858	1.71E-04	6.2E-06			1.73E-04	4.6E-06	9.71E-05	8.0E-06														
NMP25	2011-05-01 18:33	76620	22002	1.20E-04	4.8E-06			1.25E-04	3.8E-06	1.47E-04	1.2E-05											4.54E-05	1.6E-05		
NMP25	2011-05-02 15:53	93480	26809	1.01E-04	4.1E-06			9.55E-05	2.9E-06	1.20E-04	9.0E-06											3.81E-05	1.2E-05		

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
NMP25	2011-05-03 17:54	84060	20653	8.33E-05	3.7E-06			8.26E-05	2.9E-06	9.18E-05	9.0E-06														
NMP25	2011-05-04 17:19	84240	18937	5.53E-05	2.8E-06			5.88E-05	2.5E-06	1.08E-04	7.8E-06														
NMP25	2011-05-05 16:46	85500	18281	4.96E-05	2.6E-06			4.97E-05	2.3E-06	7.34E-05	8.6E-06														
NMP25	2011-05-06 16:51	92460	19776	1.72E-05	1.3E-06			1.65E-05	1.3E-06	5.34E-05	5.1E-06														
NMP25	2011-05-07 18:37	129840	27822	3.84E-05	1.9E-06			3.72E-05	1.6E-06	5.31E-05	4.8E-06														
NMP25	2011-05-09 6:46	34140	7293	3.77E-05	3.3E-06			3.89E-05	3.1E-06	7.02E-05	1.0E-05														
NMP25	2011-05-09 16:18	86580	18527	3.92E-05	2.1E-06			4.29E-05	2.0E-06	4.11E-05	5.1E-06														
NMP25	2011-05-10 16:24	90420	19337	1.54E-05	1.3E-06			1.80E-05	1.2E-06	4.02E-05	4.3E-06														
NMP25	2011-05-11 17:35	83520	17870	1.32E-05	1.1E-06			1.36E-05	1.1E-06	7.64E-05	5.9E-06														
NMP25	2011-05-12 16:51	86580	18503	2.08E-05	1.3E-06			2.24E-05	1.3E-06	3.39E-05	3.7E-06														
NMP25	2011-05-13 16:58	97140	20758	1.26E-05	9.7E-07			1.24E-05	9.9E-07	1.43E-05	2.9E-06														
NMP25	2011-05-14 19:59	82320	17605	1.28E-05	1.1E-06			1.86E-05	1.3E-06	1.85E-05	3.3E-06														
NMP25	2011-05-15 18:55	75420	16119	1.84E-05	1.3E-06			1.75E-05	1.4E-06	3.08E-05	3.8E-06														
NMP25	2011-05-16 15:55	86220	18431	1.00E-05	9.3E-07			1.14E-05	1.0E-06	2.15E-05	2.9E-06														
NMP25	2011-05-17 15:55	90600	19388	8.23E-06	9.8E-07			1.01E-05	9.1E-07																
NMP25	2011-05-18 17:09	86160	19432	4.19E-06	7.4E-07			6.13E-06	7.3E-07	1.28E-05	2.4E-06														
NMP25	2011-05-19 17:07	86160	18431	3.06E-06	7.3E-07			3.22E-06	6.4E-07	1.15E-05	2.4E-06														
NMP25	2011-05-20 17:07	92040	19707	2.95E-06	1.1E-06			3.72E-06	8.1E-07																
NMP25	2011-05-21 18:45	130080	27844	2.00E-06	4.3E-07			2.56E-06	6.0E-07																
NMP25	2011-05-23 17:52	83580	17886					2.49E-06	9.7E-07																
NMP25	2011-05-28 19:02	86100	18437			9.78E-06	4.2E-06																		
NMP27	2011-03-15 17:05	604860	12559																			1.23E-04	3.7E-05		
NMP27	2011-03-22 17:08	604200	12544	1.06E-04	5.2E-06	7.04E-06	2.5E-06	1.06E-04	3.7E-06	5.76E-04	2.1E-05	6.48E-05	8.8E-06			8.60E-05	8.8E-06								
NMP27	2011-03-29 16:59	605160	12559	1.94E-05	2.0E-06			1.52E-05	1.4E-06	1.24E-04	5.5E-06														
NMP27	2011-04-05 17:07	605100	12567	5.29E-05	3.0E-06			5.23E-05	2.4E-06	5.41E-05	3.2E-06														
NMP27	2011-04-12 17:14	603660	12529	2.40E-05	1.7E-06			2.19E-05	1.5E-06	4.09E-05	3.0E-06														
NMP27	2011-04-19 16:57	696000	14450	1.69E-05	1.5E-06			1.92E-05	1.4E-06	1.31E-05	2.7E-06														
NMP28	2011-03-16 12:15	435600	9046							9.88E-06	1.8E-06														
NMP28	2011-03-21 13:16	602580	12254	1.76E-04	7.9E-06	1.69E-05	3.9E-06	1.68E-04	5.3E-06	2.49E-03	8.5E-05	1.09E-04	2.1E-05			1.50E-04	2.0E-05					8.40E-05	2.5E-05	1.88E-04	4.5E-05
NMP28	2011-03-28 12:40	356100	7386	6.92E-05	4.4E-06			7.36E-05	3.7E-06	5.45E-04	2.1E-05														
NMP28	2011-04-01 15:35	855420	17762	2.29E-05	1.5E-06			2.15E-05	1.2E-06	1.60E-04	8.0E-06														
NMP28	2011-04-11 13:14	620160	12873	7.78E-05	4.0E-06			7.61E-05	3.0E-06	1.41E-04	7.8E-06														
NMP28	2011-04-18 17:30	674100	13835	3.14E-05	2.1E-06			2.61E-05	1.7E-06	4.56E-05	4.0E-06														
NMP28	2011-04-26 12:45	522900	10855	4.64E-06	1.2E-06			5.86E-06	1.0E-06																
NMP29	2011-03-14 16:05	1206960	23926	3.27E-06	6.1E-07			3.74E-06	4.7E-07	2.92E-04	1.2E-05														
NMP29	2011-03-28 15:23	606840	12596	4.92E-05	2.9E-06			5.18E-05	2.4E-06	8.15E-04	3.0E-05														
NMP29	2011-04-04 15:59	605580	12431	2.37E-05	1.7E-06			2.18E-05	1.4E-06	1.56E-04	8.8E-06														
NMP29	2011-04-11 16:15	753900	15120	9.68E-05	4.7E-06			8.99E-05	3.3E-06	1.23E-04	9.1E-06														
NMP29	2011-04-20 9:41	541140	11101	2.70E-05	2.1E-06			2.50E-05	1.8E-06	2.67E-05	1.4E-05														
NMP29	2011-04-26 16:02	514380	10675	1.61E-05	1.7E-06			1.78E-05	1.5E-06																
NMP29	2011-05-02 14:57	608160	12634	3.53E-06	1.2E-06			4.88E-06	1.1E-06																
NMP29	2011-05-09 15:59	604740	12416					3.18E-06	8.2E-07																
NMP35	2011-03-23 21:10	588300	12216	4.28E-06	9.4E-07			8.95E-06	1.0E-06	1.90E-04	8.5E-06														
NMP35	2011-03-30 16:35	571800	11296	1.40E-04	6.6E-06			1.44E-04	4.7E-06	6.47E-04	2.4E-05											5.44E-05	3.3E-05		
NMP35	2011-04-06 7:25	605100	12559	1.61E-04	7.0E-06			1.55E-04	4.7E-06	2.34E-04	1.1E-05											4.16E-05	2.1E-05		
NMP35	2011-04-13 7:30	618000	12806	9.10E-05	4.5E-06			9.47E-05	3.4E-06	1.05E-04	8.8E-06														
NMP35	2011-04-20 11:10	604920	12410	3.11E-05	3.2E-06			3.10E-05	1.8E-06																
NMP35	2011-04-27 11:15	589980	12245					3.64E-06	1.1E-06																
NMP36	2011-03-14 8:02	606480	12724							4.58E-05	2.8E-06														
NMP36	2011-03-21 8:30	603600	12529	8.97E-06	1.1E-06			9.42E-06	1.3E-06	4.84E-04	1.7E-05														

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
NMP36	2011-03-28 8:10	606000	12732	1.48E-04	6.8E-06	1.20E-05	2.5E-06	1.46E-04	4.6E-06	9.55E-04	3.4E-05					2.92E-05	4.4E-06					8.78E-05	3.9E-05	8.77E-05	3.5E-05
NMP36	2011-04-04 8:30	603000	12492	5.59E-05	3.1E-06			5.06E-05	2.4E-06	2.41E-04	9.1E-06														
NMP36	2011-04-11 8:00	605700	12740	6.27E-05	3.5E-06			6.39E-05	2.8E-06	1.14E-04	5.7E-06														
NMP36	2011-04-18 8:15	691200	14509	4.42E-05	2.5E-06			4.34E-05	2.1E-06	2.59E-05	2.4E-06														
NMP36	2011-04-26 8:15	519000	10895	6.47E-06	1.3E-06			4.21E-06	7.7E-07																
NMP36	2011-05-02 8:25	603300	12649	6.27E-06	1.4E-06			6.25E-06	1.1E-06																
NMP37	2011-03-04 12:55	86280	16795															1.16E-04	2.3E-05						
NMP37	2011-03-06 12:58	86820	16479															5.21E-05	1.7E-05						
NMP37	2011-03-07 13:05	86700	16519															4.68E-05	1.3E-05						
NMP37	2011-03-17 11:45	87000	16082	2.91E-05	1.8E-06	7.15E-06	2.4E-06	3.46E-05	1.9E-06	6.41E-04	2.0E-05	2.29E-04	2.3E-05			2.66E-04	2.2E-05							9.13E-05	2.9E-05
NMP37	2011-03-18 11:55	86940	16958	9.45E-05	4.2E-06	1.53E-05	2.5E-06	9.80E-05	3.4E-06	2.23E-03	6.3E-05	3.67E-04	2.9E-05			4.08E-04	3.2E-05					9.02E-05	5.4E-05	1.47E-04	2.7E-05
NMP37	2011-03-19 12:05	85500	16234	1.69E-04	6.7E-06	2.04E-05	2.9E-06	1.80E-04	5.0E-06	3.79E-03	1.1E-04	6.58E-04	4.3E-05			7.34E-04	5.5E-05					1.52E-04	8.4E-05	1.97E-04	3.2E-05
NMP37	2011-03-20 11:51	88140	16716	1.27E-04	5.3E-06	1.38E-05	2.7E-06	1.35E-04	4.1E-06	2.98E-03	8.3E-05	3.17E-04	2.3E-05			4.09E-04	3.2E-05					1.04E-04	6.2E-05	2.44E-04	3.2E-05
NMP37	2011-03-21 12:20	85140	16126	1.03E-04	4.5E-06	1.24E-05	2.1E-06	1.14E-04	3.7E-06	1.58E-03	4.5E-05	2.71E-04	1.8E-05			2.74E-04	2.1E-05					9.98E-05	5.4E-05	1.34E-04	2.8E-05
NMP37	2011-03-22 11:59	83640	15885	8.57E-05	3.9E-06	7.90E-06	2.3E-06	9.23E-05	3.3E-06	1.12E-03	3.2E-05	1.70E-04	1.3E-05			2.08E-04	1.7E-05					7.46E-05	4.1E-05	1.44E-04	2.9E-05
NMP37	2011-03-23 11:14	88560	16808	1.55E-04	6.2E-06	1.20E-05	3.3E-06	1.60E-04	4.6E-06	1.73E-03	4.9E-05	2.12E-04	2.2E-05			2.78E-04	2.3E-05					1.18E-04	4.2E-05	1.95E-04	3.0E-05
NMP37	2011-03-24 11:50	87600	16608	3.64E-04	1.3E-05	4.53E-05	5.8E-06	3.71E-04	8.6E-06	2.68E-03	7.5E-05	3.33E-04	2.7E-05			3.84E-04	3.0E-05					2.03E-04	2.0E-05	3.59E-04	3.7E-05
NMP37	2011-03-25 12:10	85980	16355	9.74E-05	4.3E-06	1.35E-05	2.7E-06	9.68E-05	3.3E-06	5.49E-04	1.7E-05	5.97E-05	1.1E-05			7.26E-05	7.6E-06					6.43E-05	3.3E-05		
NMP37	2011-03-26 12:03	86520	16530	7.43E-05	3.5E-06	7.38E-06	2.0E-06	7.09E-05	2.7E-06	7.12E-04	2.1E-05	3.75E-05	8.9E-06			4.45E-05	5.4E-06								
NMP37	2011-03-27 12:05	85200	16311	1.02E-05	1.2E-06			1.19E-05	1.2E-06	4.49E-04	1.4E-05					1.32E-05	3.0E-06								
NMP37	2011-03-28 11:45	87300	16967	1.15E-05	1.1E-06			1.17E-05	1.1E-06	2.98E-04	9.5E-06														
NMP37	2011-03-29 12:00	85800	16191	1.42E-05	1.6E-06			1.75E-05	1.5E-06	3.73E-04	1.4E-05														
NMP37	2011-03-30 11:50	86700	16310							2.32E-05	2.3E-06														
NMP37	2011-03-31 11:55	87000	16643	3.03E-05	1.9E-06			3.11E-05	1.7E-06	1.30E-04	5.8E-06														
NMP37	2011-04-01 12:05	86280	16270	7.78E-06	1.4E-06			9.68E-06	1.1E-06	1.33E-04	5.8E-06														
NMP37	2011-04-02 12:04	86760	16494	5.86E-05	3.0E-06	5.71E-06	2.0E-06	4.98E-05	2.3E-06	4.28E-04	1.5E-05														
NMP37	2011-04-03 12:11	85140	16174	1.09E-04	4.8E-06	6.42E-06	2.5E-06	1.04E-04	3.7E-06	4.51E-04	1.5E-05											3.92E-05	2.8E-05		
NMP37	2011-04-04 11:50	83400	16068	1.83E-05	1.5E-06			1.96E-05	1.4E-06	9.46E-05	4.3E-06														
NMP37	2011-04-05 11:50	86100	16488	3.79E-05	2.4E-06			3.84E-05	2.3E-06	1.27E-04	6.9E-06														
NMP37	2011-04-06 11:45	87300	16704	9.53E-05	4.3E-06			9.09E-05	3.3E-06	2.22E-04	9.8E-06														
NMP37	2011-04-07 12:00	86700	16227	4.73E-05	2.6E-06			4.72E-05	2.2E-06	1.31E-04	6.7E-06														
NMP37	2011-04-08 12:05	84900	18469	5.34E-05	2.7E-06			5.23E-05	2.2E-06	1.33E-04	6.4E-06														
NMP37	2011-04-09 11:40	87660	16615	4.59E-05	2.6E-06	7.13E-06	2.7E-06	4.36E-05	2.0E-06	9.30E-05	5.3E-06														
NMP37	2011-04-10 12:01	86640	16245	1.55E-05	1.7E-06			1.77E-05	1.4E-06	3.78E-05	2.9E-06														
NMP37	2011-04-11 12:05	85500	16188	2.39E-05	1.7E-06			2.13E-05	1.5E-06	5.93E-05	3.7E-06														
NMP37	2011-04-12 11:50	85800	16302	2.82E-05	1.7E-06			2.70E-05	1.5E-06	6.38E-05	4.1E-06														
NMP37	2011-04-13 11:40	87600	16532	2.24E-05	1.6E-06			2.17E-05	1.6E-06	8.27E-05	6.6E-06														
NMP37	2011-04-14 12:00	86100	16381	2.88E-05	1.9E-06			3.21E-05	1.9E-06	7.72E-05	6.9E-06														
NMP37	2011-04-15 11:55	86880	16733	4.55E-05	2.4E-06			4.52E-05	2.0E-06	7.35E-05	4.6E-06														
NMP37	2011-04-16 12:05	86220	16394	3.61E-05	2.1E-06			4.16E-05	2.0E-06	7.38E-05	4.4E-06														
NMP37	2011-04-17 12:03	86220	16371	2.07E-05	1.6E-06			1.83E-05	1.5E-06	4.18E-05	4.6E-06														
NMP37	2011-04-18 12:00	86400	16061	2.77E-05	1.9E-06			3.21E-05	1.9E-06	4.14E-05	4.4E-06							1.09E-04	3.2E-05						
NMP37	2011-04-19 12:00	85200	16313	4.52E-05	3.6E-06			4.68E-05	2.3E-06	4.14E-05	6.4E-06														
NMP37	2011-04-20 11:40	86400	16408	2.70E-05	2.2E-06			1.96E-05	1.5E-06	3.27E-05	4.6E-06														
NMP37	2011-04-21 11:40	87000	16582	2.58E-05	1.8E-06			2.44E-05	1.7E-06	3.62E-05	4.3E-06														
NMP37	2011-04-22 11:55	87300	16718	6.07E-05	3.1E-06			5.47E-05	2.5E-06	7.08E-05	6.5E-06														
NMP37	2011-04-23 12:10	85500	16233	3.74E-05	2.2E-06			4.12E-05	2.2E-06	5.96E-05	4.8E-06														
NMP37	2011-04-24 12:00	86400	16216	1.94E-05	1.7E-06			1.64E-05	1.4E-06	2.15E-05	4.5E-06														
NMP37	2011-04-26 11:30	87000	16360							1.12E-05	3.2E-06														
NMP37	2011-04-27 11:40	87300	16092	3.54E-06	1.2E-06																				

Table A3.3 Contaminant Concentrations

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Cs-134		Cs-136		Cs-137		I-131		I-132		I-133		Te-132		Tc-99m		La-140		Te-129		Te-129m	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
NMP37	2011-04-28 11:55	86400	16450	5.33E-06	1.1E-06					9.77E-06	2.8E-06														
NMP37	2011-04-29 11:55	87300	16807	4.51E-06	1.0E-06													6.45E-05	1.6E-05						
NMP37	2011-04-30 12:10	86340	16309	5.81E-06	1.3E-06			4.52E-06	1.1E-06	8.39E-06	3.1E-06														
NMP37	2011-05-01 12:09	84960	15991	7.97E-06	1.3E-06			8.41E-06	1.2E-06	5.73E-06	3.0E-06														
NMP37	2011-05-03 11:55	86100	16239	2.81E-06	8.8E-07			4.07E-06	7.7E-07																
NMP37	2011-05-04 11:50	86400	16332	6.48E-06	1.1E-06			6.30E-06	9.0E-07																
NMP37	2011-05-05 11:50	86700	16494	6.63E-06	1.1E-06			6.21E-06	9.2E-07																
NMP37	2011-05-08 12:00	85200	16190					1.83E-06	7.7E-07																
NMP37	2011-05-14 11:24	88200	16804	3.76E-06	1.2E-06																				
NMP37	2011-05-15 11:56	86340	16133															2.92E-04	9.3E-05						
NMP37	2011-05-16 11:55	83100	16133					2.94E-06	1.0E-06																
NMP37	2011-05-17 19:35	57900	11961	4.57E-06	2.0E-06																				
NMP37	2011-05-22 12:00	85200	17207					3.07E-06	1.1E-06																
NMP37	2011-05-23 11:40	86400	18095	4.11E-06	1.0E-06			5.45E-06	9.4E-07																
NMP37	2011-05-24 11:40	87600	16198	6.56E-06	1.0E-06			5.25E-06	7.4E-07																
NMP37	2011-05-25 12:00	86400	18605					2.48E-06	5.5E-07																
NMP37	2011-05-26 12:00	85800	17533															7.09E-05	1.7E-05						
NMP37	2011-05-28 12:01	85860	17750															5.61E-05	1.3E-05						
NMP37	2011-05-30 12:05	86100	17727															3.35E-05	8.4E-06						

APPENDIX 4. Radioxenon at Yellowknife, NT (CAX16); St. John's, NL (CAX17); and Ottawa, ON (CAX05)

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Xe-131m		Xe-133		Xe-133m		Xe-135	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAX16	2011-02-27 17:38	86400	7.06E+01			1.26E-04	3.65E-05				
CAX16	2011-02-28 17:39	86400	7.07E+01	1.24E-04	5.86E-05						
CAX16	2011-03-01 17:38	86400	7.02E+01								
CAX16	2011-03-02 17:38	86400	7.11E+01								
CAX16	2011-03-03 17:38	86400	7.04E+01								
CAX16	2011-03-04 17:38	86400	6.84E+01								
CAX16	2011-03-05 17:38	86400	6.66E+01								
CAX16	2011-03-06 17:38	86400	6.09E+01								
CAX16	2011-03-07 17:38	86400	6.17E+01								
CAX16	2011-03-08 17:38	86400	6.88E+01								
CAX16	2011-03-09 17:38	86400	6.77E+01								
CAX16	2011-03-10 17:38	86400	6.82E+01								
CAX16	2011-03-11 17:38	86400	6.71E+01								
CAX16	2011-03-12 17:38	86400	6.71E+01								
CAX16	2011-03-13 17:38	86400	6.97E+01								
CAX16	2011-03-14 17:38	86400	6.93E+01								
CAX16	2011-03-15 17:38	86400	6.70E+01								
CAX16	2011-03-16 17:38	86400	6.46E+01								
CAX16	2011-03-17 17:38	86400	6.37E+01								
CAX16	2011-03-18 17:38	86400	6.54E+01								
CAX16	2011-03-19 17:38	86400	6.63E+01								
CAX16	2011-03-20 17:38	86400	6.50E+01			1.59E-04	4.18E-05				
CAX16	2011-03-21 17:38	86400	6.78E+01			2.07E-04	4.22E-05				
CAX16	2011-03-22 17:38	86400	7.30E+01	6.96E-03	7.54E-04	3.15E-01	1.82E-02	1.35E-03	2.99E-01		
CAX16	2011-03-23 17:38	86400	7.51E+01	1.23E-02	1.25E-03	6.84E-01	3.96E-02	3.64E-03	1.67E-01		
CAX16	2011-03-24 17:38	86400	7.41E+01	4.03E-02	3.40E-03	2.19E+00	1.26E-01	7.78E-03	1.34E-01		
CAX16	2011-03-25 17:38	86400	7.10E+01	1.22E-02	1.25E-03	6.50E-01	3.77E-02	2.18E-03	2.56E-01		
CAX16	2011-03-26 17:38	86400	7.52E+01	3.21E-02	2.73E-03	1.26E+00	7.32E-02	3.30E-03	2.02E-01		
CAX16	2011-03-27 17:38	86400	7.63E+01	3.95E-02	3.20E-03	1.34E+00	7.76E-02	3.39E-03	1.97E-01		
CAX16	2011-03-28 17:38	86400	7.07E+01	3.56E-02	2.99E-03	1.21E+00	7.03E-02	3.07E-03	2.17E-01		
CAX16	2011-03-29 17:38	86400	7.52E+01	3.37E-02	2.79E-03	1.04E+00	6.03E-02	1.73E-03	2.99E-01		
CAX16	2011-03-30 17:38	86400	7.47E+01	6.08E-02	4.81E-03	1.85E+00	1.07E-01	2.04E-03	2.60E-01		
CAX16	2011-03-31 17:38	86400	7.36E+01	7.33E-02	5.73E-03	2.04E+00	1.18E-01	2.60E-03	2.38E-01		
CAX16	2011-04-01 17:38	86400	7.42E+01	8.95E-02	6.86E-03	2.33E+00	1.35E-01	1.94E-03	2.65E-01		
CAX16	2011-04-02 17:38	86400	7.50E+01	6.16E-02	4.83E-03	1.50E+00	8.68E-02	1.79E-03	2.77E-01		
CAX16	2011-04-03 17:38	86400	7.24E+01	5.87E-02	4.64E-03	1.41E+00	8.19E-02				
CAX16	2011-04-04 17:38	86400	7.61E+01	7.10E-02	5.46E-03	1.29E+00	7.48E-02				
CAX16	2011-04-05 17:38	86400	6.01E+01	6.78E-02	5.35E-03	1.33E+00	7.68E-02				
CAX16	2011-04-06 17:38	86400	6.71E+01	6.86E-02	5.33E-03	1.15E+00	6.68E-02				
CAX16	2011-04-17 12:00	86400	7.37E+01	2.99E-02	2.47E-03	2.40E-01	1.39E-02				
CAX16	2011-04-18 12:00	86400	6.88E+01	2.60E-02	2.19E-03	2.06E-01	1.20E-02				
CAX16	2011-04-19 12:00	86400	7.35E+01	2.46E-02	2.02E-03	1.56E-01	9.03E-03				
CAX16	2011-04-20 12:00	86400	6.11E+01	2.13E-02	1.82E-03	1.31E-01	7.63E-03				
CAX16	2011-04-21 12:00	86400	6.54E+01	2.01E-02	1.72E-03	1.19E-01	6.90E-03				
CAX16	2011-04-22 12:00	86400	7.08E+01	2.19E-02	1.82E-03	1.22E-01	7.07E-03				
CAX16	2011-04-23 12:00	86400	7.18E+01	2.12E-02	1.76E-03	1.19E-01	6.92E-03				
CAX16	2011-04-26 12:00	86400	8.21E+01	1.98E-02	1.65E-03	6.96E-02	4.04E-03				
CAX16	2011-04-27 12:00	86400	7.16E+01	1.70E-02	1.44E-03	6.17E-02	3.59E-03				
CAX16	2011-04-28 12:00	86400	7.33E+01	1.57E-02	1.34E-03	5.32E-02	3.10E-03				
CAX16	2011-04-29 12:00	86400	6.86E+01	1.65E-02	1.41E-03	4.89E-02	2.85E-03				
CAX16	2011-04-30 12:00	86400	6.99E+01	1.44E-02	1.24E-03	3.86E-02	2.26E-03				
CAX16	2011-05-01 12:00	86400	6.61E+01	1.42E-02	1.24E-03	3.75E-02	2.19E-03				

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Xe-131m		Xe-133		Xe-133m		Xe-135	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAX16	2011-05-02 12:00	86400	7.07E+01	1.37E-02	1.19E-03	3.22E-02	1.88E-03				
CAX16	2011-05-03 12:00	86400	7.53E+01	1.16E-02	1.01E-03	2.43E-02	1.43E-03				
CAX16	2011-05-04 12:00	86400	6.93E+01	1.11E-02	9.96E-04	2.15E-02	1.26E-03				
CAX16	2011-05-05 12:00	86400	7.99E+01	9.68E-03	8.70E-04	1.74E-02	1.02E-03				
CAX16	2011-05-06 12:00	86400	7.28E+01	9.86E-03	8.93E-04	1.58E-02	9.33E-04				
CAX16	2011-05-07 12:00	86400	7.56E+01	9.29E-03	8.47E-04	1.42E-02	8.43E-04				
CAX16	2011-05-08 12:00	86400	7.47E+01	8.76E-03	8.08E-04	1.20E-02	7.14E-04				
CAX16	2011-05-09 12:00	86400	7.50E+01	8.52E-03	7.85E-04	1.03E-02	6.13E-04				
CAX16	2011-05-18 12:00	86400	8.47E+01	4.87E-03	4.83E-04	2.93E-03	1.92E-04				
CAX16	2011-05-19 12:00	86400	8.27E+01	4.14E-03	4.24E-04	2.39E-03	1.60E-04				
CAX16	2011-05-20 12:00	86400	7.45E+01	4.15E-03	4.24E-04	2.39E-03	1.60E-04				
CAX16	2011-05-21 12:00	86400	7.46E+01	4.00E-03	4.12E-04	1.96E-03	1.34E-04				
CAX16	2011-05-22 12:00	86400	7.94E+01	3.31E-03	3.52E-04	1.61E-03	1.13E-04				
CAX16	2011-06-04 12:07	86400	7.51E+01	1.57E-03	1.90E-04	2.98E-04	4.14E-05				
CAX16	2011-06-05 12:07	86400	8.23E+01	1.58E-03	1.94E-04	1.97E-04	3.56E-05				
CAX16	2011-06-06 12:07	86400	7.93E+01	1.32E-03	1.66E-04	2.39E-04	3.77E-05				
CAX16	2011-06-07 12:07	86400	8.76E+01	1.10E-03	1.35E-04	1.79E-04	3.31E-05				
CAX16	2011-06-08 12:07	86400	8.36E+01	1.12E-03	1.39E-04	1.64E-04	3.35E-05				
CAX16	2011-06-09 12:07	86400	9.31E+01	1.01E-03	1.34E-04	1.38E-04	2.87E-05				
CAX16	2011-06-10 12:07	86400	8.66E+01	9.42E-04	1.25E-04	1.78E-04	3.26E-05				
CAX16	2011-06-11 12:07	86400	8.79E+01	9.21E-04	1.30E-04						
CAX16	2011-06-12 12:07	86400	9.01E+01	8.34E-04	1.23E-04						
CAX16	2011-06-13 12:07	86400	9.06E+01	8.13E-04	1.11E-04						
CAX16	2011-06-14 12:07	86400	9.39E+01	7.08E-04	9.98E-05						
CAX16	2011-06-15 12:07	86400	9.02E+01	7.00E-04	1.03E-04						
CAX16	2011-06-16 12:07	86400	9.65E+01	5.99E-04	9.32E-05						
CAX16	2011-06-17 12:07	86400	9.28E+01	6.98E-04	1.01E-04						
CAX16	2011-06-18 12:07	86400	9.15E+01	5.27E-04	8.39E-05						
CAX16	2011-06-19 12:07	86400	8.59E+01	4.90E-04	8.56E-05						
CAX16	2011-06-20 12:07	86400	8.80E+01	5.52E-04	8.70E-05						
CAX16	2011-06-21 12:07	86400	9.17E+01	4.53E-04	7.91E-05						
CAX16	2011-06-22 12:07	86400	8.67E+01	4.29E-04	8.73E-05						
CAX16	2011-06-23 12:07	86400	9.46E+01	3.81E-04	8.11E-05						
CAX16	2011-06-24 12:07	86400	8.56E+01	5.05E-04	1.14E-04						
CAX16	2011-06-25 12:08	86400	8.69E+01	4.17E-04	8.78E-05						
CAX16	2011-06-26 12:07	86400	8.67E+01	5.65E-04	9.17E-05						
CAX16	2011-06-27 12:07	86400	8.68E+01	4.71E-04	1.10E-04						
CAX16	2011-06-28 12:07	86400	9.49E+01	3.17E-04	6.74E-05						
CAX16	2011-06-29 12:07	86400	9.24E+01	2.76E-04	7.00E-05						
CAX16	2011-06-30 12:07	86400	9.38E+01	4.08E-04	8.09E-05						
CAX16	2011-07-01 12:07	86400	8.73E+01	3.02E-04	7.36E-05						
CAX16	2011-07-02 12:07	86400	8.91E+01	4.34E-04	8.49E-05						
CAX16	2011-07-03 12:07	86400	8.75E+01	3.40E-04	7.14E-05						
CAX16	2011-07-04 12:07	86400	8.59E+01	2.14E-04	6.83E-05						
CAX16	2011-07-05 12:07	86400	9.39E+01	1.89E-04	6.18E-05						
CAX16	2011-07-06 12:07	86400	8.52E+01	2.52E-04	7.09E-05						
CAX16	2011-07-07 12:07	86400	9.28E+01	1.74E-04	6.19E-05						
CAX16	2011-07-08 12:07	86400	8.68E+01	2.04E-04	6.79E-05						
CAX16	2011-07-09 12:07	86400	8.46E+01	2.98E-04	6.92E-05						
CAX16	2011-07-10 12:07	86400	8.63E+01	1.95E-04	6.68E-05						
CAX16	2011-07-11 12:07	86400	8.25E+01	2.12E-04	7.07E-05						
CAX16	2011-07-12 12:07	86400	9.28E+01	2.42E-04	6.24E-05						

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Xe-131m		Xe-133		Xe-133m		Xe-135	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAX16	2011-07-13 12:07	86400	8.50E+01	1.77E-04	6.49E-05						
CAX16	2011-07-14 12:07	86400	9.11E+01	9.27E-05	4.34E-05						
CAX16	2011-07-15 12:07	86400	8.88E+01	1.39E-04	5.35E-05						
CAX16	2011-07-16 12:07	86400	8.34E+01	1.19E-04	5.56E-05						
CAX16	2011-07-17 12:07	86400	8.81E+01	1.14E-04	5.34E-05						
CAX16	2011-07-18 12:07	86400	8.76E+01	8.65E-05	4.05E-05						
CAX16	2011-07-19 12:08	86400	9.28E+01	1.27E-04	5.17E-05						
CAX16	2011-07-20 12:07	86400	8.92E+01								
CAX16	2011-07-21 12:07	86400	9.22E+01	1.40E-04	5.62E-05						
CAX16	2011-07-22 12:07	86400	8.81E+01								
CAX16	2011-07-23 12:07	86400	8.54E+01			1.69E-04	3.44E-05				
CAX16	2011-07-24 12:07	86400	8.72E+01			1.30E-04	3.19E-05				
CAX16	2011-07-25 12:07	86400	8.50E+01								
CAX16	2011-07-26 12:07	86400	8.80E+01								
CAX16	2011-07-27 12:07	86400	8.83E+01								
CAX17	2011-03-01 13:00	86400	6.91E+01	2.14E-04	7.16E-05	1.22E-03	9.31E-05				
CAX17	2011-03-02 13:00	86400	6.90E+01			5.94E-03	3.65E-04				
CAX17	2011-03-03 13:00	86400	6.97E+01	2.51E-04	7.18E-05	3.08E-03	1.99E-04				
CAX17	2011-03-04 13:00	86400	7.10E+01			7.35E-04	6.63E-05				
CAX17	2011-03-05 13:00	86400	6.84E+01			1.97E-04	4.01E-05				
CAX17	2011-03-06 13:00	86400	7.09E+01			5.09E-04	5.46E-05				
CAX17	2011-03-07 13:00	86400	6.96E+01			1.00E-03	8.19E-05				
CAX17	2011-03-08 13:00	86400	6.99E+01			1.29E-03	9.77E-05				
CAX17	2011-03-09 13:00	86400	6.97E+01			3.91E-04	4.71E-05				
CAX17	2011-03-10 13:00	86400	7.08E+01			3.99E-04	4.83E-05				
CAX17	2011-03-11 13:00	86400	6.98E+01			3.02E-04	4.40E-05				
CAX17	2011-03-12 13:00	86400	7.10E+01	1.58E-04	6.54E-05	2.94E-03	1.91E-04				
CAX17	2011-03-13 13:00	86400	7.07E+01	1.17E-03	1.95E-04	3.58E-02	2.09E-03	1.16E-03	2.22E-04		
CAX17	2011-03-14 13:00	86400	6.83E+01			1.14E-02	6.78E-04				
CAX17	2011-03-15 13:00	86400	7.18E+01	2.02E-04	6.80E-05	9.13E-04	7.51E-05				
CAX17	2011-03-16 13:00	86400	6.99E+01			1.89E-04	4.02E-05				
CAX17	2011-03-17 13:00	86400	6.88E+01	1.21E-04	5.66E-05	6.98E-04	6.46E-05				
CAX17	2011-03-18 13:00	86400	7.17E+01			5.51E-03	3.39E-04				
CAX17	2011-03-19 13:00	86400	6.94E+01	1.44E-04	5.81E-05	1.36E-03	1.01E-04				
CAX17	2011-03-20 13:00	86400	7.17E+01			1.61E-04	3.68E-05				
CAX17	2011-03-21 13:00	86400	7.00E+01								
CAX17	2011-03-22 13:00	86400	7.17E+01	1.37E-04	6.38E-05	8.55E-03	5.15E-04				
CAX17	2011-03-23 13:00	86400	6.91E+01	1.23E-03	2.27E-04	4.89E-02	2.85E-03				
CAX17	2011-03-24 13:00	86400	7.10E+01	2.40E-03	3.35E-04	8.38E-02	4.87E-03				
CAX17	2011-03-25 13:00	86400	6.99E+01	5.26E-03	5.89E-04	1.62E-01	9.37E-03				
CAX17	2011-03-26 13:00	86400	7.00E+01	1.69E-03	2.48E-04	4.73E-02	2.76E-03				
CAX17	2011-03-27 13:00	86400	7.13E+01	3.14E-03	3.91E-04	9.10E-02	5.28E-03				
CAX17	2011-03-28 13:00	86400	7.04E+01	3.93E-03	4.92E-04	1.52E-01	8.81E-03				
CAX17	2011-03-29 13:00	86400	6.60E+01	4.99E-03	5.73E-04	1.57E-01	9.13E-03				
CAX17	2011-03-30 13:00	86400	7.03E+01	3.70E-02	3.00E-03	1.12E+00	6.51E-02	1.47E-03	4.64E-04		
CAX17	2011-03-31 13:00	86400	6.77E+01	6.26E-02	4.95E-03	1.79E+00	1.04E-01	3.85E-03	7.17E-04		
CAX17	2011-04-01 13:00	86400	6.95E+01	5.03E-02	4.02E-03	1.27E+00	7.36E-02	1.82E-03	5.39E-04		
CAX17	2011-04-02 13:00	86400	6.65E+01	6.35E-02	4.97E-03	1.51E+00	8.73E-02				
CAX17	2011-04-03 13:00	86400	6.86E+01	1.43E-01	1.07E-02	3.42E+00	1.98E-01	3.26E-03	6.78E-04		
CAX17	2011-04-04 13:00	86400	6.75E+01	1.05E-01	7.91E-03	2.24E+00	1.29E-01	1.49E-03	4.80E-04		
CAX17	2011-04-05 13:00	86400	6.81E+01	8.68E-02	6.61E-03	1.71E+00	9.87E-02	1.11E-03	4.56E-04		
CAX17	2011-04-06 13:00	86400	6.61E+01	7.08E-02	5.46E-03	1.18E+00	6.82E-02				

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Xe-131m		Xe-133		Xe-133m		Xe-135	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAX17	2011-04-07 13:00	86400	6.48E+01	8.21E-02	6.27E-03	1.39E+00	8.07E-02				
CAX17	2011-04-08 13:00	86400	6.92E+01	6.75E-02	5.19E-03	1.02E+00	5.89E-02				
CAX17	2011-04-09 13:00	86400	6.62E+01	6.51E-02	5.02E-03	8.86E-01	5.13E-02				
CAX17	2011-04-10 13:00	86400	6.86E+01	5.37E-02	4.22E-03	7.59E-01	4.39E-02				
CAX17	2011-04-11 13:00	86400	6.77E+01	5.36E-02	4.18E-03	6.02E-01	3.48E-02				
CAX17	2011-04-12 13:00	86400	6.57E+01	4.80E-02	3.76E-03	4.66E-01	2.70E-02				
CAX17	2011-04-13 13:00	86400	6.87E+01	4.13E-02	3.27E-03	4.35E-01	2.52E-02				
CAX17	2011-04-14 13:00	86400	6.64E+01	3.65E-02	2.93E-03	3.00E-01	1.74E-02				
CAX17	2011-04-15 13:00	86400	6.76E+01	3.20E-02	2.60E-03	2.78E-01	1.61E-02				
CAX17	2011-04-16 13:00	86400	6.81E+01	3.81E-02	3.04E-03	3.02E-01	1.75E-02				
CAX17	2011-04-17 13:00	86400	6.69E+01	3.17E-02	2.56E-03	2.50E-01	1.45E-02				
CAX17	2011-04-18 13:00	86400	6.94E+01	2.54E-02	2.11E-03	1.71E-01	9.94E-03				
CAX17	2011-04-19 13:00	86400	6.72E+01	2.59E-02	2.14E-03	1.67E-01	9.67E-03				
CAX17	2011-04-20 13:00	86400	6.80E+01	2.61E-02	2.16E-03	1.60E-01	9.30E-03				
CAX17	2011-04-21 13:00	86400	6.88E+01	2.51E-02	2.07E-03	1.39E-01	8.05E-03				
CAX17	2011-04-22 13:00	86400	6.73E+01	2.29E-02	1.91E-03	1.28E-01	7.41E-03				
CAX17	2011-04-23 13:00	86400	6.60E+01	2.24E-02	1.86E-03	9.89E-02	5.75E-03				
CAX17	2011-04-24 13:00	86400	6.48E+01	2.00E-02	1.70E-03	8.32E-02	4.84E-03				
CAX17	2011-04-25 13:00	86400	6.52E+01	1.85E-02	1.59E-03	7.00E-02	4.07E-03				
CAX17	2011-04-26 13:00	86400	6.57E+01	1.82E-02	1.56E-03	6.58E-02	3.83E-03				
CAX17	2011-04-27 13:00	86400	6.53E+01	1.78E-02	1.50E-03	6.30E-02	3.67E-03				
CAX17	2011-04-28 13:00	86400	6.91E+01	1.46E-02	1.27E-03	4.76E-02	2.77E-03				
CAX17	2011-04-29 13:00	86400	6.57E+01	8.61E-03	8.12E-04	2.45E-02	1.44E-03				
CAX17	2011-04-30 13:00	86400	6.53E+01	1.02E-02	9.29E-04	2.79E-02	1.64E-03				
CAX17	2011-06-01 13:00	86400	7.46E+01	1.87E-03	2.11E-04	4.56E-04	5.41E-05				
CAX17	2011-06-02 13:00	86400	7.42E+01	1.83E-03	2.18E-04	4.48E-04	5.17E-05				
CAX17	2011-06-03 13:00	86400	7.28E+01	1.85E-03	2.13E-04	2.87E-04	4.28E-05				
CAX17	2011-06-04 13:00	86400	7.26E+01	1.30E-03	1.65E-04	3.45E-04	4.59E-05				
CAX17	2011-06-05 13:00	86400	7.51E+01	1.20E-03	1.54E-04	2.21E-04	3.94E-05				
CAX17	2011-06-06 13:00	86400	7.70E+01	1.05E-03	1.32E-04	2.48E-04	3.71E-05				
CAX17	2011-06-07 13:00	86400	7.61E+01	9.43E-04	1.38E-04	3.62E-04	4.42E-05				
CAX17	2011-06-08 13:00	86400	7.48E+01	1.04E-03	1.32E-04	2.23E-04	3.71E-05				
CAX17	2011-06-09 13:00	86400	7.41E+01	8.13E-04	1.17E-04	1.81E-04	3.64E-05				
CAX17	2011-06-10 13:00	86400	7.63E+01	9.00E-04	1.31E-04	1.64E-04	3.64E-05				
CAX17	2011-06-11 13:00	86400	7.64E+01	9.91E-04	1.30E-04	1.19E-04	3.38E-05				
CAX17	2011-06-12 13:00	86400	7.50E+01	8.49E-04	1.22E-04						
CAX17	2011-06-13 13:00	86400	7.60E+01	8.66E-04	1.17E-04						
CAX17	2011-06-14 13:00	86400	7.60E+01	8.08E-04	1.20E-04						
CAX17	2011-06-15 13:00	86400	7.60E+01	7.24E-04	1.05E-04						
CAX17	2011-06-16 13:00	86400	7.33E+01	7.78E-04	1.13E-04						
CAX17	2011-06-17 13:00	86400	7.46E+01	7.31E-04	1.13E-04						
CAX17	2011-06-18 13:00	86400	7.54E+01	5.24E-04	9.37E-05						
CAX17	2011-06-19 13:00	86400	7.51E+01	6.33E-04	9.96E-05						
CAX17	2011-06-20 13:00	86400	7.70E+01	4.41E-04	8.85E-05						
CAX17	2011-06-21 13:00	86400	7.39E+01	5.70E-04	1.11E-04						
CAX17	2011-06-22 13:00	86400	7.65E+01	4.98E-04	8.53E-05						
CAX17	2011-06-23 13:00	86400	7.61E+01	4.43E-04	8.66E-05						
CAX17	2011-06-24 13:00	86400	7.26E+01	4.16E-04	8.77E-05						
CAX17	2011-06-25 13:00	86400	7.47E+01	4.29E-04	8.64E-05						
CAX17	2011-06-26 13:00	86400	7.43E+01	4.11E-04	8.66E-05						
CAX17	2011-06-27 13:00	86400	7.37E+01	3.39E-04	7.89E-05						
CAX17	2011-06-28 13:00	86400	7.25E+01	4.73E-04	8.64E-05						

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Xe-131m		Xe-133		Xe-133m		Xe-135	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAX17	2011-06-29 13:00	86400	7.40E+01	3.19E-04	7.31E-05						
CAX17	2011-06-30 13:00	86400	7.49E+01	2.22E-04	6.80E-05						
CAX17	2011-07-01 13:00	86400	7.27E+01	5.87E-04	9.98E-05	1.71E-03	1.14E-04				
CAX17	2011-07-02 13:00	86400	7.22E+01	4.50E-04	8.92E-05	1.52E-03	1.05E-04				
CAX17	2011-07-03 13:00	86400	7.05E+01	3.50E-04	8.54E-05	7.80E-03	4.38E-04				
CAX17	2011-07-04 13:00	86400	7.10E+01	4.01E-04	9.02E-05	3.49E-03	2.09E-04				
CAX17	2011-07-05 13:00	86400	7.03E+01	1.97E-04	6.91E-05	5.18E-04	5.40E-05				
CAX17	2011-07-06 13:00	86400	7.35E+01	4.19E-04	8.98E-05	1.91E-03	1.24E-04				
CAX17	2011-07-07 13:00	86400	7.15E+01	3.60E-04	8.21E-05	1.02E-03	7.93E-05				
CAX17	2011-07-08 13:00	86400	7.01E+01	2.12E-04	7.37E-05	8.55E-04	7.09E-05				
CAX17	2011-07-09 13:00	86400	7.57E+01	1.50E-04	5.57E-05	8.87E-04	7.06E-05				
CAX17	2011-07-10 13:00	86400	7.07E+01	1.41E-04	5.41E-05	5.38E-04	5.37E-05				
CAX17	2011-07-11 13:00	86400	6.90E+01	4.46E-04	1.17E-04	2.13E-04	3.90E-05				
CAX17	2011-07-12 13:00	86400	7.19E+01	1.73E-04	6.55E-05	6.93E-04	6.21E-05				
CAX17	2011-07-13 13:00	86400	7.06E+01	4.45E-04	1.50E-04	9.39E-04	7.61E-05				
CAX17	2011-07-14 13:00	86400	7.39E+01	1.41E-04	5.56E-05	2.21E-04	3.83E-05				
CAX17	2011-07-15 13:00	86400	6.87E+01	1.78E-04	6.47E-05						
CAX17	2011-07-16 13:00	86400	7.33E+01	1.68E-04	6.38E-05	2.63E-03	1.63E-04				
CAX17	2011-07-17 13:00	86400	7.25E+01	1.19E-04	5.59E-05	8.86E-04	7.19E-05				
CAX17	2011-07-18 13:00	86400	7.05E+01			1.14E-03	8.58E-05				
CAX17	2011-07-19 13:00	86400	7.49E+01	3.18E-04	7.00E-05	9.67E-04	7.48E-05				
CAX17	2011-07-20 13:00	86400	7.28E+01	2.37E-04	6.70E-05	5.43E-04	5.46E-05				
CAX17	2011-07-21 13:00	86400	6.91E+01	1.69E-04	6.71E-05	1.35E-03	9.74E-05				
CAX17	2011-07-22 13:00	86400	6.94E+01	3.51E-04	7.60E-05	1.07E-03	8.24E-05				
CAX17	2011-07-24 13:00	86400	6.60E+01	1.51E-04	6.10E-05	7.70E-04	6.96E-05				
CAX17	2011-07-26 13:00	86400	7.26E+01								
CAX17	2011-07-27 13:00	86400	7.43E+01	1.42E-04	5.68E-05	1.37E-04	3.35E-05				
CAX17	2011-07-28 13:00	86400	7.20E+01								
CAX17	2011-07-29 13:00	86400	7.12E+01			1.68E-04	3.74E-05				
CAX17	2011-07-31 13:00	86400	7.07E+01			1.69E-04	5.46E-05				
CAX05	2011-03-11 12:00	86400	3.44E+01	2.89E-03	3.86E-04	6.00E-02	2.43E-03				
CAX05	2011-03-12 12:00	86400	4.02E+00	1.55E-01	1.25E-02	2.24E+00	8.90E-02	1.18E-01	9.68E-03	1.92E-01	3.94E-02
CAX05	2011-03-13 12:00	86400	2.89E+01	1.60E-03	3.14E-04	3.58E-02	1.51E-03				
CAX05	2011-03-16 12:00	86400	5.84E+01	2.32E-04	8.78E-05	8.97E-03	3.89E-04				
CAX05	2011-03-17 12:00	86400	6.24E+01	3.53E-04	9.33E-05	3.65E-03	1.78E-04			6.28E-04	2.06E-04
CAX05	2011-03-18 12:00	86400	6.21E+01	3.44E-03	4.20E-04	1.58E-01	6.27E-03	6.80E-03	5.87E-04	1.44E-02	2.96E-03
CAX05	2011-03-19 12:00	86400	6.11E+01	1.12E-03	1.90E-04	4.24E-02	1.71E-03	1.97E-03	2.90E-04	4.84E-03	1.02E-03
CAX05	2011-03-21 12:00	86400	7.46E+01	3.40E-03	3.77E-04	9.82E-02	3.91E-03	2.65E-03	4.77E-04	7.75E-03	2.45E-03
CAX05	2011-03-23 12:00	86400	5.68E+01	7.65E-04	1.46E-04	1.15E-02	4.90E-04				
CAX05	2011-03-24 12:00	86400	6.19E+01	3.17E-03	3.43E-04	4.59E-02	1.84E-03	1.08E-03	2.30E-04		
CAX05	2011-03-25 12:00	86400	6.26E+01	3.87E-03	4.27E-04	1.11E-01	4.43E-03	4.61E-03	4.73E-04		
CAX05	2011-03-26 12:00	86400	6.13E+01	3.37E-03	3.66E-04	6.05E-02	2.42E-03	1.79E-03	3.00E-04		
CAX05	2011-03-27 12:00	86400	6.21E+01	1.32E-02	1.04E-03	2.91E-01	1.15E-02	8.87E-03	7.36E-04		
CAX05	2011-03-28 12:00	86400	6.55E+01	4.76E-02	3.15E-03	1.88E+00	7.43E-02	1.41E-02	1.24E-03		
CAX05	2011-03-29 12:00	86400	5.81E+01	6.11E-02	3.94E-03	1.95E+00	7.71E-02	9.06E-03	1.06E-03	1.10E-01	2.24E-02
CAX05	2011-03-30 12:00	86400	6.08E+01	1.16E-01	7.09E-03	3.67E+00	1.45E-01	9.22E-03	1.12E-03	3.21E-02	6.55E-03
CAX05	2011-03-31 12:00	86400	6.58E+01	9.74E-02	5.98E-03	3.01E+00	1.19E-01	4.17E-03	7.65E-04	1.18E-03	2.92E-04
CAX05	2011-04-01 12:00	86400	6.56E+01	9.22E-02	5.67E-03	2.39E+00	9.43E-02	1.38E-02	1.29E-03	8.46E-02	1.72E-02
CAX05	2011-04-02 12:00	86400	6.01E+01	1.22E-01	7.30E-03	2.55E+00	1.00E-01	1.87E-02	1.56E-03	3.09E-02	6.29E-03
CAX05	2011-04-09 8:00	86400	6.26E+01	8.29E-02	5.05E-03	9.76E-01	3.85E-02	9.28E-03	9.34E-04	2.25E-02	4.60E-03
CAX05	2011-04-10 8:00	86400	6.26E+01	5.43E-02	3.43E-03	5.61E-01	2.21E-02				
CAX05	2011-04-11 8:00	86400	6.18E+01	3.61E-02	2.38E-03	3.87E-01	1.53E-02	4.12E-03	5.55E-04	1.00E-01	2.03E-02

Site	Sampling Start (UTC)	Sample Duration (s)	Volume [m^3 (STP)]	Xe-131m		Xe-133		Xe-133m		Xe-135	
				Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]	Activity Concentration [Bq/m^3]	Uncertainty [Bq/m^3]
CAX05	2011-04-12 8:00	86400	6.82E+01	4.01E-02	2.61E-03	4.33E-01	1.71E-02				
CAX05	2011-04-13 10:00	86400	5.97E+01	4.69E-02	3.01E-03	3.88E-01	1.53E-02	4.19E-03	5.99E-04	4.33E-03	9.17E-04
CAX05	2011-04-14 10:00	86400	6.29E+01	3.67E-02	2.39E-03	3.52E-01	1.39E-02	7.14E-04	3.38E-04		
CAX05	2011-04-15 10:00	86400	7.51E+01	3.25E-02	2.16E-03	3.30E-01	1.30E-02				
CAX05	2011-04-17 14:00	86400	4.91E+01	3.91E-02	2.67E-03	4.61E-01	1.82E-02	8.74E-03	1.55E-03	7.79E-01	1.71E-01
CAX05	2011-04-21 14:00	86400	5.79E+01	3.97E-02	2.81E-03	1.12E+00	4.42E-02	8.02E-03	1.06E-03	9.75E-04	3.59E-04
CAX05	2011-04-22 14:36	86400	6.25E+01	2.50E-02	1.72E-03	1.35E-01	5.36E-03				
CAX05	2011-04-23 14:36	86400	6.25E+01	2.06E-02	1.46E-03	1.22E-01	4.86E-03	2.31E-03	3.76E-04	3.39E-03	7.27E-04
CAX05	2011-04-24 14:36	86400	6.27E+01	1.92E-02	1.35E-03	1.26E-01	4.99E-03	1.48E-03	4.76E-04	3.87E-04	1.72E-04

APPENDIX 5. Method of dose calculation

The dose calculations for cloudshine and inhalation at each monitoring location were based on the average weekly concentrations in air (Bq/m^3) of the radionuclides ^{131}I, ^{134}Cs, and ^{137}Cs from the first column in Tables 1, 2, and 3 respectively. In the case of ^{131}I, the sampling equipment used is sensitive only to particulate iodine, so a correction must be applied to obtain the total iodine content including both particulate and gaseous forms. From a long series of measurement by the US Environmental Protection Agency (USEPA), the proportion of gaseous to total iodine in the air appeared to be relatively consistent at about 80% [Figure A5.1]. This factor is corroborated in European monitoring network studies[22] and has been used to correct the measured ^{131}I concentrations.

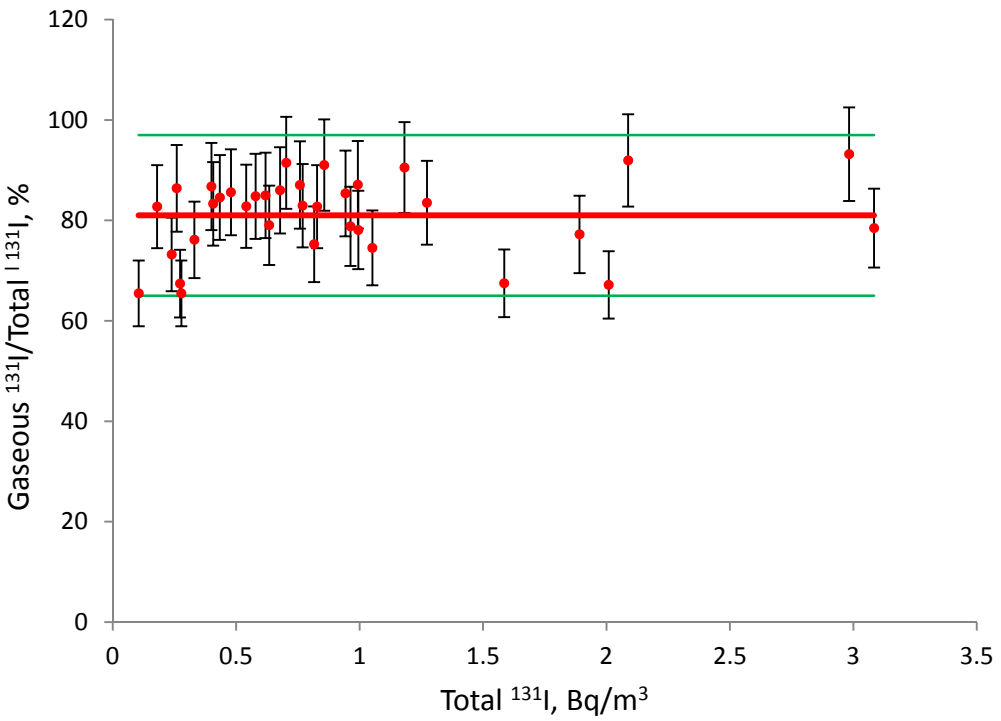

Figure A5.1. USEPA[23] data on gaseous and particulate ^{131}I emissions from the Fukushima NPP accident measured in the USA. The lines on the graph represent the average (81%) ± 2 standard deviations.

[22] Masson O., et al, Tracking of Airborne Radionuclides from the Damaged Fukushima Daiichi Nuclear Reactors by European Networks, *Environ. Sci. Technol.* **2011**, *45*, 7670-7676. http://pubs.acs.org/doi/pdf/10.1021/es2017158 (accessed Mar 13, 2015)

[23] U.S. Environmental Protection Agency. *Iodine*. 2012, http://www.epa.gov/radiation/radionuclides/iodine.html (accessed Mar 13, 2015)

Since the elapsed time from 1 March 2011 to 31 May 2011 is 92 days, the average measurement values were multiplied by 92 to give cumulative or time-integrated exposures TConc (Bq day m^{-3}). Concentrations in air of ^{131}I, ^{134}Cs and ^{137}Cs were significantly decreased if not already below detection limits following this 92 day exposure period due to the short half-life of ^{131}I and the rapid wet-deposition and dry deposition of ^{134}Cs and ^{137}Cs. For this reason, cloudshine and inhalation doses were calculated for this time period only. The doses resulting from cloudshine and inhalation were calculated according to Equations (1) and (2), respectively.

$$Cloudshine\ dose\ (\mu Sv) = TConc\ (Bq\ day\ m^{-3})\ \times\ DC_{cloud}(Sv\ m^3\ Bq^{-1}\ y^{-1})\ \times\ 1/365.25\ (y\ day^{-1})\ \times\ 10^6\ (\mu Sv\ Sv^{-1}) \quad (1)$$

$$Inhalation\ dose\ (\mu Sv) = TConc\ (Bq\ day\ m^{-3}) \times breathing\ rate\ (m^3\ day^{-1}) \times DC_{inhal}\ (Sv\ Bq^{-3})\ \times\ 10^6\ (\mu Sv\ Sv^{-1}) \quad (2)$$

where, DC_{cloud} and DC_{inhal} are the dose coefficients for cloudshine and inhalation from CSA standard N288.1[24] and ICRP 119[25], respectively. The calculation for cloudshine [Equation (1)] is conservative due to the fact that it does not account for any building shielding effects while the individual is indoors. The breathing rates used for Equation (2) were the 95th percentiles: 23.0 m^3/day for adults; 21.5 m^3/day for 10 year olds; and 7.5 m^3/day for infants (CSA N288.1). Total cloudshine and inhalation doses for representative adults, 10 year old children and 1 year old infants are presented in Table A5.5, Table A5.6 and Table A5.7, respectively.

In the case of ^{133}Xe, only the dose from cloudshine was considered as described in Section 5.2.3. The Canadian CTBTO IMS stations where ^{133}Xe is measured include Yellowknife NT, Ottawa ON, and St. John's NL. Weekly average air concentrations were determined from the data in Appendix 4. Following the Fukushima accident, additional FPS detectors were shipped to the west coast, specifically to Victoria, Sidney, Saanich, Metchosin, Nanaimo and Vancouver BC. For calculating the dose at the Sidney and Vancouver locations, the monthly dose data (nGy/month) was used and was converted to an air concentration as described in

[24] Canadian Standards Association. *CSA N288.1-08 - Guidelines for calculating derived release limits for radioactive material in airborne and liquid effluents for normal operation of nuclear facilities*. 2008.

[25] International Commission on Radiological Protection (ICRP). *Compendium of Dose Coefficients based on ICRP Publication 60.* ICRP Publication 119. Ann. ICRP 41(Suppl.); 2012.

Section 3.2.4. For the Yellowknife NT, Ottawa ON, and St. John's NL locations, the cloudshine dose was calculated according to Equation (1). However, since the levels of ^{133}Xe were only detectable during the month of March, the integration time used was 31 days rather than the 92 days used for ^{131}I, ^{134}Cs and ^{137}Cs radionuclides. For the remainder of the locations included in the dose assessment, the average of the ^{133}Xe dose calculated based on the Yellowknife NT and St. John's NL CTBTO IMS stations was used so as to not bias the data towards the slightly higher ^{133}Xe measurements recorded in Ottawa (due to the presence of the Chalk River Laboratories) and on the west coast. Cloudshine doses to an adult, 10 year old child and 1 year old infant resulting from exposure to ^{133}Xe at each of the monitoring sites are presented in Table A5.1. These doses were also incorporated into the total cloudshine doses presented in Table A5.5, Table A5.6 and Table A5.7.

Table A5.1 Cloudshine doses for ^{133}Xe calculated at each monitoring location for an adult, 10 year old child, and 1 year old infant

Station	^{133}Xe cloudshine dose to an adult (µSv)	^{133}Xe cloudshine dose to a 10 year old child (µSv)	^{133}Xe cloudshine dose to a 1 year old infant (µSv)
Yellowknife, NT	1.20×10^{-3}	1.20×10^{-3}	1.56×10^{-3}
Ottawa, ON	2.55×10^{-3}	2.55×10^{-3}	3.32×10^{-3}
St. John's, NL	1.36×10^{-3}	1.36×10^{-3}	1.77×10^{-3}
Sidney, BC	4.04×10^{-2}	4.04×10^{-2}	5.26×10^{-2}
Vancouver, BC	4.62×10^{-2}	4.62×10^{-2}	6.01×10^{-2}
Canada Average	1.28×10^{-3}	1.28×10^{-3}	1.66×10^{-3}

The calculations for groundshine and ingestion were based on the ^{137}Cs ground deposition map in Figure 16. This map does not provide exact depositions for each location, but only a range of depositions according to a computer simulation. Based on this range, a single value was selected to represent the assumed deposition of ^{137}Cs (Table A5.2).

Table A5.2 Assumed deposition of ^{137}Cs for use in the groundshine and ingestion dose assessment based on Figure 16

Color code on map	Range of values (Bq/m^2)	^{137}Cs Assumed Deposition (Bq/m^2)	^{134}Cs Assumed Deposition (Bq/m2)
Orange	> 10	20	17
Yellow	3 – 10	5	4.25
Green	1 – 3	2	1.7
Light Blue	0.3 – 1	0.5	0.425

For purposes of these calculations, it was assumed that the ^{134}Cs depositions were equal to those of ^{137}Cs, but a partial decay correction of 0.85 was applied to ^{134}Cs during the first year after deposition to account for the shorter half-life. As described in Section 5.2.1 and 5.2.3, the contribution from ^{131}I and ^{133}Xe for both groundshine and ingestion can be ignored. The dose resulting from groundshine was calculated according to Equation (3).

$$Groundshine\ dose\ (\mu Sv) = Deposition\ (Bq\ m^{-2}) \times\ DC_{ground}\ (Sv\ m^2\ Bq^{-1}\ y^{-1}) \times outdoor\ occupancy\ factor\ (unitless) \times\ 10^6 (\mu Sv\ Sv^{-1}) \quad (3)$$

where, DC_{ground} is the dose coefficient for groundshine specified in CSA Standard N288.1. The outdoor occupancy factor was conservatively assumed to be 0.5. Unlike the cloudshine and inhalation doses, the groundshine exposures were assumed to continue over an entire year. The resulting doses from groundshine for each deposition value, or colour code from the map, are presented in Table A5.3.

Table A5.3 Groundshine doses for ^{134}Cs and ^{137}Cs for each colour coded region of Figure 16

Colour code on map	Groundshine dose to an adult (µSv)		Groundshine dose to a 10 year old child (µSv)		Groundshine dose to a 1 year old infant (µSv)	
	^{134}Cs	^{137}Cs	^{134}Cs	^{137}Cs	^{134}Cs	^{137}Cs
Orange	3.97×10^{-1}	1.75×10^{-1}	3.97×10^{-1}	1.75×10^{-1}	5.16×10^{-1}	2.28×10^{-1}
Yellow	9.92×10^{-2}	4.38×10^{-2}	9.92×10^{-2}	4.38×10^{-2}	1.29×10^{-1}	5.70×10^{-2}
Green	3.97×10^{-2}	1.75×10^{-2}	3.97×10^{-2}	1.75×10^{-2}	5.16×10^{-2}	2.28×10^{-2}
Light Blue	9.92×10^{-3}	4.38×10^{-3}	9.92×10^{-3}	4.38×10^{-3}	1.29×10^{-2}	5.70×10^{-3}

For the calculation of ingestion doses it was assumed that all Canadians, regardless of their place of residence, obtain their entire food supply from agricultural production in southern Canada (or continental USA which received roughly the same amount of Fukushima fallout). This is a conservative assumption since, with the exception of a small area of south-western BC, the highest deposition rates occurred in this region (see Figure 16). To complete the ingestion dose assessment, the pathways from Figure A5.2 were used. In order to feed into the model, air concentration was reverse calculated based on the deposition values estimated for southern Canada.

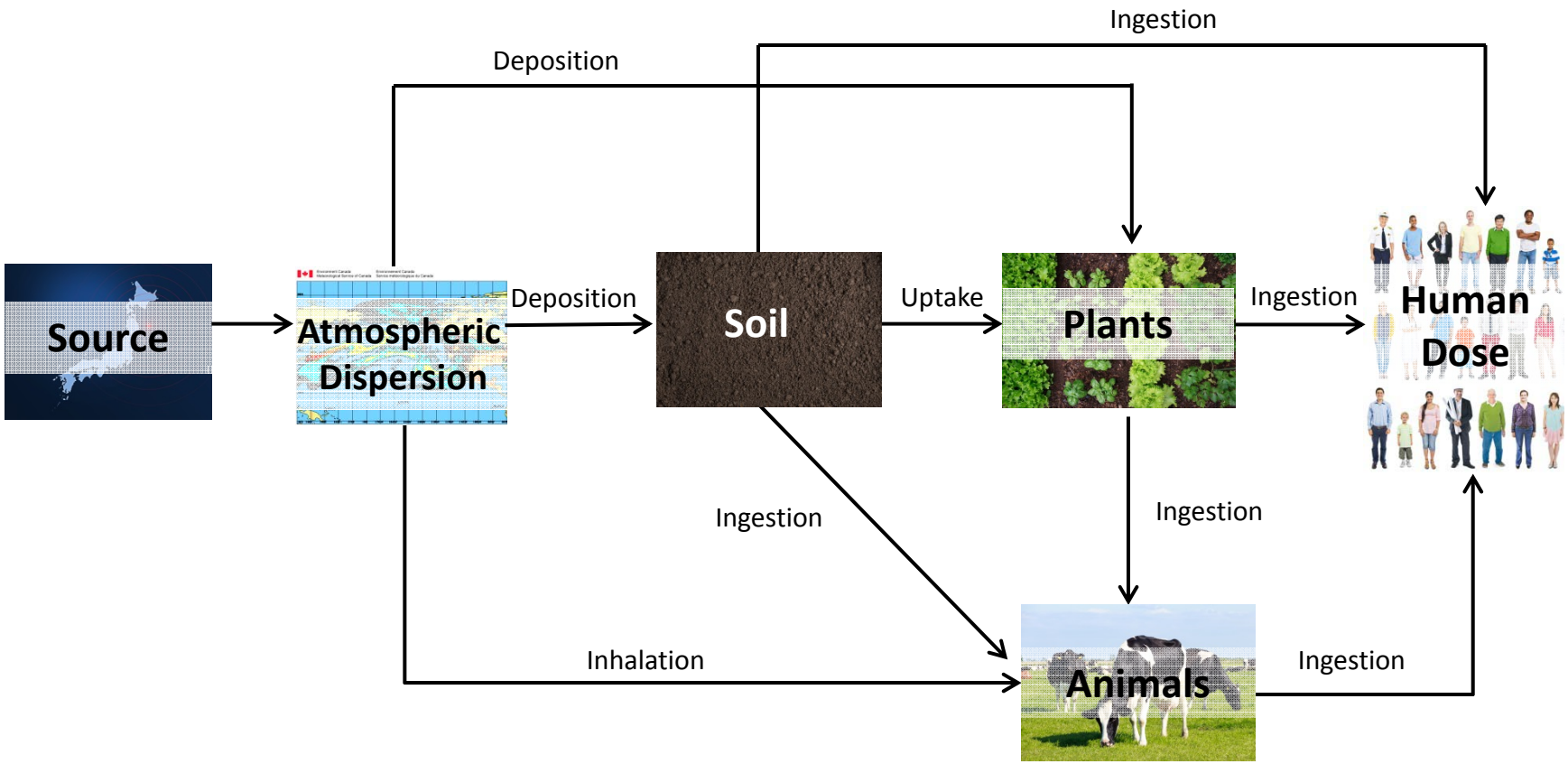

Figure A5.2: Schematic representation of environmental transfer and exposure pathways of the ingestion dose assessment

Water pathways, including drinking water and ingestion of aquatic plants and animals, were not included in the ingestion dose assessment. Due to the dilution of the already low deposition rates into large bodies of water, the contribution of these pathways to total dose would be very small. The conservative default values recommended in the CSA standard N288.1[26] were used throughout the assessment. Ingestion dose was calculated according to Equation (4).

$$Ingestion\ Dose\ (\mu Sv) = Product\ Concentration\ (Bq/kg) \times adjustment\ for\ food\ processing\ (unitless) \times fraction\ of\ product\ from\ contaminated\ source\ (unitless) \times intake\ of\ product\ (Bq/kg)\ \times DC_{ingest}\ (Sv/Bq) \quad (4)$$

where, DC_{ingest} is the dose coefficient for ingestion specified in ICRP 119, the intake of product is the ingestion rate specified in CSA standard N288.1, the adjustment factor for food processing and the fraction of product from contaminated source were both conservatively taken to be 1 and the product concentration was calculated for each product using a pathways model which included pathways such as deposition onto plants, plant uptake by soil, animal inhalation, and animal feed ingestion.

The resulting ingestion doses to representative adults, 10 year old children, and 1 year old infants are presented in Table A5.5, Table A5.6 and Table A5.7, respectively along with the doses from all other pathways, and the cumulative total dose from all pathways.

[26] Canadian Standards Association. *CSA. N288.1-14 - Guidelines for calculating derived release limits for radioactive material in airborne and liquid effluents for normal operation of nuclear facilities*; 2008.

Table A5.5 Estimated doses to an adult at each monitoring location by pathway and total estimated dose to an adult

Station	Cloudshine Dose (μSv)	Inhalation Dose (μSv)	Groundshine Dose (μSv)	Ingestion Dose (μSv)	Total Dose (μSv)
Sidney BC (CRMN)	4.06×10^{-2}	3.63×10^{-2}	5.72×10^{-1}	3.78×10^{0}	4.43×10^{0}
Sidney BC (CTBT)	4.06×10^{-2}	3.53×10^{-2}	5.72×10^{-1}	3.78×10^{0}	4.43×10^{0}
Vancouver BC	4.63×10^{-2}	1.33×10^{-2}	5.72×10^{-1}	3.78×10^{0}	4.41×10^{0}
Resolute (CTBT)	2.18×10^{-3}	2.68×10^{-1}	1.43×10^{-2}	3.78×10^{0}	4.06×10^{0}
Ottawa ON (CTBT)	2.88×10^{-3}	9.29×10^{-2}	1.43×10^{-1}	3.78×10^{0}	4.02×10^{0}
Amherstburg ON	1.50×10^{-3}	6.54×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.99×10^{0}
Resolute NU (CRMN)	1.91×10^{-3}	1.85×10^{-1}	1.43×10^{-2}	3.78×10^{0}	3.98×10^{0}
Edmonton AB	1.45×10^{-3}	5.01×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.97×10^{0}
Montreal QC	1.43×10^{-3}	3.87×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.96×10^{0}
Ottawa ON (CRMN)	2.68×10^{-3}	3.52×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.96×10^{0}
Calgary AB	1.40×10^{-3}	3.55×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.96×10^{0}
Toronto ON	1.41×10^{-3}	3.49×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.96×10^{0}
St. John's NL	1.50×10^{-3}	3.45×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.96×10^{0}
Quebec City QC	1.41×10^{-3}	3.27×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.96×10^{0}
Greenwood NS	1.40×10^{-3}	3.04×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.95×10^{0}
Digby NS	1.40×10^{-3}	3.02×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.95×10^{0}
Port Hope ON	1.39×10^{-3}	3.00×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.95×10^{0}
Moosonee ON	1.40×10^{-3}	2.93×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.95×10^{0}
Goose Bay NL	1.40×10^{-3}	2.40×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.95×10^{0}
Charlottetown PE	1.38×10^{-3}	2.17×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.95×10^{0}
Moncton NB	1.36×10^{-3}	1.97×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.94×10^{0}
Winnipeg MB	1.35×10^{-3}	1.84×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.94×10^{0}
Halifax NS	1.36×10^{-3}	1.64×10^{-2}	1.43×10^{-1}	3.78×10^{0}	3.94×10^{0}
Yellowknife NT	1.55×10^{-3}	9.83×10^{-2}	5.72×10^{-2}	3.78×10^{0}	3.94×10^{0}
Inuvik NT	1.53×10^{-3}	6.32×10^{-2}	5.72×10^{-2}	3.78×10^{0}	3.90×10^{0}
Whitehorse YT	1.47×10^{-3}	5.51×10^{-2}	5.72×10^{-2}	3.78×10^{0}	3.89×10^{0}
Regina SK	1.40×10^{-3}	3.65×10^{-2}	5.72×10^{-2}	3.78×10^{0}	3.88×10^{0}
Kuujjuarapik QC	1.37×10^{-3}	1.83×10^{-2}	5.72×10^{-2}	3.78×10^{0}	3.86×10^{0}
Churchill MB	1.35×10^{-3}	1.55×10^{-2}	5.72×10^{-2}	3.78×10^{0}	3.85×10^{0}
Alert NU	1.38×10^{-3}	3.02×10^{-3}	1.43×10^{-2}	3.78×10^{0}	3.80×10^{0}

Table A5.6 Estimated doses to a 10 year old child at each monitoring location by pathway and total estimated dose to a 10 year old

Station	Cloudshine Dose (μSv)	Inhalation Dose (μSv)	Groundshine Dose (μSv)	Ingestion Dose (μSv)	Total Dose (μSv)
Sidney BC (CRMN)	4.06×10^{-2}	8.07×10^{-2}	5.72×10^{-1}	1.73×10^{0}	2.42×10^{0}
Sidney BC (CTBT)	4.06×10^{-2}	7.83×10^{-2}	5.72×10^{-1}	1.73×10^{0}	2.42×10^{0}
Vancouver BC	4.63×10^{-2}	2.94×10^{-2}	5.72×10^{-1}	1.73×10^{0}	2.38×10^{0}
Resolute (CTBT)	2.18×10^{-3}	5.99×10^{-1}	1.43×10^{-2}	1.73×10^{0}	2.34×10^{0}
Ottawa ON (CTBT)	2.88×10^{-3}	2.07×10^{-1}	1.43×10^{-1}	1.73×10^{0}	2.08×10^{0}
Amherstburg ON	1.50×10^{-3}	1.46×10^{-1}	1.43×10^{-1}	1.73×10^{0}	2.02×10^{0}
Resolute NU (CRMN)	1.91×10^{-3}	4.11×10^{-1}	1.43×10^{-2}	1.73×10^{0}	2.16×10^{0}
Edmonton AB	1.45×10^{-3}	1.12×10^{-1}	1.43×10^{-1}	1.73×10^{0}	1.98×10^{0}
Montreal QC	1.43×10^{-3}	8.56×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.96×10^{0}
Ottawa ON (CRMN)	2.68×10^{-3}	7.79×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.95×10^{0}
Calgary AB	1.40×10^{-3}	7.94×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.95×10^{0}
Toronto ON	1.41×10^{-3}	7.74×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.95×10^{0}
St. John's NL	1.50×10^{-3}	7.58×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.95×10^{0}
Quebec City QC	1.41×10^{-3}	7.19×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.94×10^{0}
Greenwood NS	1.40×10^{-3}	6.67×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.94×10^{0}
Digby NS	1.40×10^{-3}	6.66×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.94×10^{0}
Port Hope ON	1.39×10^{-3}	6.64×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.94×10^{0}
Moosonee ON	1.40×10^{-3}	6.43×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.94×10^{0}
Goose Bay NL	1.40×10^{-3}	5.15×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.92×10^{0}
Charlottetown PE	1.38×10^{-3}	4.69×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.92×10^{0}
Moncton NB	1.36×10^{-3}	4.31×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.92×10^{0}
Winnipeg MB	1.35×10^{-3}	4.08×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.91×10^{0}
Halifax NS	1.36×10^{-3}	3.53×10^{-2}	1.43×10^{-1}	1.73×10^{0}	1.91×10^{0}
Yellowknife NT	1.55×10^{-3}	2.18×10^{-1}	5.72×10^{-2}	1.73×10^{0}	2.00×10^{0}
Inuvik NT	1.53×10^{-3}	1.39×10^{-1}	5.72×10^{-2}	1.73×10^{0}	1.83×10^{0}
Whitehorse YT	1.47×10^{-3}	1.23×10^{-1}	5.72×10^{-2}	1.73×10^{0}	1.91×10^{0}
Regina SK	1.40×10^{-3}	8.14×10^{-2}	5.72×10^{-2}	1.73×10^{0}	1.87×10^{0}
Kuujjuarapik QC	1.37×10^{-3}	3.95×10^{-2}	5.72×10^{-2}	1.73×10^{0}	1.83×10^{0}
Churchill MB	1.35×10^{-3}	3.35×10^{-2}	5.72×10^{-2}	1.73×10^{0}	1.82×10^{0}
Alert NU	1.38×10^{-3}	2.27×10^{-3}	1.43×10^{-2}	1.73×10^{0}	1.75×10^{0}

Table A5.7 Estimated doses to a 1 year old infant at each monitoring location by pathway and total estimated dose to an infant

Station	Cloudshine Dose (μSv)	Inhalation Dose (μSv)	Groundshine Dose (μSv)	Ingestion Dose (μSv)	Total Dose (μSv)
Sidney BC (CRMN)	5.28×10^{-2}	9.35×10^{-2}	7.44×10^{-1}	1.10×10^{0}	1.93×10^{0}
Sidney BC (CTBT)	5.28×10^{-2}	9.07×10^{-2}	7.44×10^{-1}	1.10×10^{0}	1.93×10^{0}
Vancouver BC	6.02×10^{-2}	3.41×10^{-2}	7.44×10^{-1}	1.10×10^{0}	1.87×10^{0}
Resolute (CTBT)	2.84×10^{-3}	6.96×10^{-1}	1.86×10^{-2}	1.10×10^{0}	1.81×10^{0}
Ottawa ON (CTBT)	3.74×10^{-3}	2.40×10^{-1}	1.86×10^{-1}	1.10×10^{0}	1.52×10^{0}
Amherstburg ON	1.96×10^{-3}	1.69×10^{-1}	1.86×10^{-1}	1.10×10^{0}	1.45×10^{0}
Resolute NU (CRMN)	2.94×10^{-3}	4.78×10^{-1}	1.86×10^{-2}	1.10×10^{0}	1.59×10^{0}
Edmonton AB	1.88×10^{-3}	1.30×10^{-1}	1.86×10^{-1}	1.10×10^{0}	1.41×10^{0}
Montreal QC	1.85×10^{-3}	9.91×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.38×10^{0}
Ottawa ON (CRMN)	3.49×10^{-3}	9.02×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.37×10^{0}
Calgary AB	1.82×10^{-3}	9.23×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.37×10^{0}
Toronto ON	1.83×10^{-3}	8.97×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.37×10^{0}
St. John's NL	1.95×10^{-3}	8.76×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.37×10^{0}
Quebec City QC	1.83×10^{-3}	8.32×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.36×10^{0}
Greenwood NS	1.82×10^{-3}	7.71×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.36×10^{0}
Digby NS	1.82×10^{-3}	7.70×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.36×10^{0}
Port Hope ON	1.81×10^{-3}	7.69×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.36×10^{0}
Moosonee ON	1.82×10^{-3}	7.43×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.36×10^{0}
Goose Bay NL	1.82×10^{-3}	5.91×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.34×10^{0}
Charlottetown PE	1.80×10^{-3}	5.40×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.34×10^{0}
Moncton NB	1.77×10^{-3}	4.97×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.33×10^{0}
Winnipeg MB	1.75×10^{-3}	4.72×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.33×10^{0}
Halifax NS	1.77×10^{-3}	4.06×10^{-2}	1.86×10^{-1}	1.10×10^{0}	1.32×10^{0}
Yellowknife NT	2.02×10^{-3}	2.53×10^{-1}	7.44×10^{-2}	1.10×10^{0}	1.42×10^{0}
Inuvik NT	1.99×10^{-3}	1.61×10^{-1}	7.44×10^{-2}	1.10×10^{0}	1.33×10^{0}
Whitehorse YT	1.92×10^{-3}	1.42×10^{-1}	7.44×10^{-2}	1.10×10^{0}	1.31×10^{0}
Regina SK	1.82×10^{-3}	9.45×10^{-2}	7.44×10^{-2}	1.10×10^{0}	1.26×10^{0}
Kuujjuarapik QC	1.78×10^{-3}	4.55×10^{-2}	7.44×10^{-2}	1.10×10^{0}	1.21×10^{0}
Churchill MB	1.76×10^{-3}	3.86×10^{-2}	7.44×10^{-2}	1.10×10^{0}	1.21×10^{0}
Alert NU	1.79×10^{-3}	1.11×10^{-3}	1.86×10^{-2}	1.10×10^{0}	1.11×10^{0}

The results of the dose assessment showed that in all cases ingestion was the dominant pathway of exposure. This is in agreement with the UNSCEAR report[27] for the Fukushima accident, which reported that ingestion quickly became the dominant pathway with increasing distance from the Fukushima NPP. The highest estimated dose in Canada for the first year

[27] United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR). *2013 Report to the General Assembly, with scientific annexes. Volume I: Report to the General Assembly, Scientific Annex A: Levels and effects of radiation exposure due to the nuclear accident after the 2011 great east-Japan earthquake and tsunami*; 2014.

following the Fukushima accident was approximately 4.4 μSv (0.0044 mSv) to an adult living in Sidney BC. Again this is in agreement with the conclusions reached by UNSCEAR, that the total average effective doses to populations living outside Japan due to the accident were less than 0.01 mSv in the first year.

APPENDIX 6. Acronyms and Glossary

Acronyms

CBSA – Canadian Border Services Agency

CCMEP – Canadian Centre for Meteorological and Environmental Prediction

CFIA – Canadian Food Inspection Agency

CRMN – Canadian Radiological Monitoring Network

CTBT – Comprehensive Nuclear Test Ban Treaty

CTBTO – Comprehensive Nuclear Test Ban Treaty Organization

DPRK – Democratic People's Republic of Korea

FNEP – Federal Nuclear Emergency Plan

FPS – Fixed Point Surveillance System

ICRP – International Commission on Radiological Protection

IDC – International Data Centre

IMS – International Monitoring System

MLDP0 – Modèle Langrangien de dispersion de particules d'ordre 0

NDC – National Data Centre

NPP – Nuclear Power Plant

PTBT – Partial Test Ban Treaty

RPB – Radiation Protection Bureau

TLD – Thermoluminescent Dosimeter

TTBT – Threshold Test Ban Treaty

UNSCEAR – United Nations Scientific Committee on the Effects of Atomic Radiation

USEPA – United States Environmental Protection Agency

USGS – United States Geological Survey

UTC – Coordinated Universal Time

Glossary

Aerosol Particulates: Small solid particles or liquid droplets found in the air, to which radionuclides may attach.

Air KERMA: an acronym for "kinetic energy released per unit mass", defined as the sum of the initial kinetic energies of all the charged particles liberated by uncharged ionizing particles (i.e., indirectly ionizing radiation such as photons and neutrons) in a volume element of mass.

Background Radiation: The radiation arising from natural radiation sources such as terrestrial radiation from radioactive substances in the soil, and cosmic radiation from space.

Beta Radiation: A form of ionizing radiation where an electron or positron is emitted. Beta radiation is moderately penetrating and can be stopped by a few millimeters of aluminium.

Cloudshine: Direct external exposure to a cloud of radioactivity.

Dry-deposition: The deposition of aerosol particles onto solid surfaces by processes such as sedimentation, interception, impactions, diffusion, turbulence or some other process.

Effective Dose: The tissue-weighted sum of the equivalent doses in all specified tissues and organs of the body. Expressed in units sieverts (Sv).

External Radiation: Radiation exposure occurring externally to the human body, for instance by cloudshine or groundshine.

Gamma Radiation: A form of ionizing radiation consisting of very high frequency electromagnetic radiation (high energy photons). Gamma radiation has high penetrating power and requires at least 10 centimetres of lead for effective shielding.

Gamma Ray Spectroscopy: A measurement technique which produces a gamma-ray energy spectrum thereby allowing for the identification of which radionuclides are present in a sample and how much of each radionuclide is present.

Gravitational Settling: The dry deposition of aerosol particles due to the force of gravity.

Groundshine: Direct external exposure due to radionuclides deposited on the ground.

Half-life: The time required for the activity of a radionuclide to decrease to one half of its initial value.

Internal Radiation: Radiation exposure occurring internally to the human body through either the inhalation or ingestion of radionuclides.

Isotopes: Radionuclides having the same number of protons (i.e. belonging to the same element) but different number of neutrons.

Noble Gases: A group of inert elements which exist only in the gaseous form at standard pressures and temperatures.

Radioactive Decay: The process by which an unstable atom transforms into another atom and loses energy by emitting some form of ionizing radiation.

Radioactive Fallout: The long-term transportation and eventual deposition of radioactive aerosols in the atmosphere, in this case referring mainly to radioactivity from the atmospheric testing of nuclear weapons.

Radioxenon: The compendium of radioactive xenon isotopes.

Sodium Iodide Detector: A radiation measurement device which uses a scintillation crystal of sodium-iodide to interact with radiation creating light which can in turn be measured using a photomultiplier.

Thermoluminescent Dosimeters: A radiation measurement device which measures the intensity of light emitted from a crystal when the crystal is heated. The intensity of light emitted is dependent upon the radiation exposure of the crystal. Can be used for environmental monitoring and for the monitoring of individuals, for instance in an occupational exposure setting.

Wet-deposition: The deposition of aerosol particles onto solid surfaces by such processes as impaction by below cloud precipitation and nucleation of water droplets in clouds.

Wet Scavenging: The wet deposition of aerosol particles which have been incorporated into water droplets and are deposited on a surface during precipitation (i.e. rain or snow).