

Appendix F
Summary of Biological Data

The following tables contain a bolding convention devised to help the reader, when viewing the data, to quickly see the range of detectable measurements within a data series. A data series is a set of chemical or radionuclide measurements (e.g., gross alpha, gross beta, tritium) from a single location or from similar locations. Note that some tables contain data that should not be technically evaluated under this convention.

Key to bolding convention:

Results for each constituent constitute a single data series. If a radiological result is larger than the uncertainty term, the measurement is considered positive. Otherwise, a result is considered nondetectable.

If all results in a data series are positive, the lowest and highest values are bolded.

If a data series contains some positive results, the highest value is bolded.

If all values in a data series are nondetectable, no values are bolded.

Table F-1
2006 Radioactivity Concentrations in Milk

Location ($\mu\text{Ci/mL}$)	K-40 ($\mu\text{Ci/mL}$)	Sr-90 ($\mu\text{Ci/mL}$)	I-129 ($\mu\text{Ci/mL}$)	Cs-137
BFMBLSY (WNW Farm)				
<i>Annual</i>	1.58 \pm 0.18E-06	0.36 \pm 1.04E-09	0.95 \pm 1.96E-10	2.88 \pm 3.32E-09
BFMCTLS (Control)				
<i>Annual</i>	1.40 \pm 0.16E-06	-3.39 \pm 7.35E-10	-0.17 \pm 3.42E-10	-2.08 \pm 3.20E-09
BFMSCHT (S Farm)				
<i>Annual</i>	1.12 \pm 0.15E-06	1.04 \pm 1.01E-09	-0.27 \pm 2.16E-10	-0.42 \pm 3.09E-09
BFMWIDR (SE Farm)				
<i>1st Quarter</i>	1.11\pm0.18E-06	1.13 \pm 0.93E-09	-2.49 \pm 4.32E-10	9.99\pm5.97E-09
<i>2nd Quarter</i>	1.20 \pm 0.10E-06	1.03 \pm 6.42E-10	3.03 \pm 3.26E-10	1.05 \pm 2.27E-09
<i>3rd Quarter</i>	1.47\pm0.14E-06	1.72\pm0.78E-09	-1.25 \pm 4.21E-10	2.62 \pm 3.18E-09
<i>4th Quarter</i>	1.30 \pm 0.14E-06	-4.84 \pm 9.04E-10	0.19 \pm 1.56E-10	3.64 \pm 3.96E-09

Note: Bolding convention applied to these data. See page F-2

Table F-2
2006 Radioactivity Concentrations in Venison

Location	% Moisture	H-3 ($\mu\text{Ci/mL}$)	K-40 ($\mu\text{Ci/g - dry}$)	Sr-90 ($\mu\text{Ci/g - dry}$)	Cs-137 ($\mu\text{Ci/g - dry}$)
Deer Background (BFDCTRL 11/06)	74.3	0.71 \pm 1.07E-07	1.04\pm0.08E-05	5.89\pm3.09E-09	7.37\pm3.65E-08
Deer Background (BFDCTRL 11/06)	75.0	5.55 \pm 9.62E-08	1.16 \pm 0.07E-05	4.38 \pm 3.13E-09	0.00 \pm 3.76E-08
Deer Background (BFDCTRL 11/06)	72.1	9.03 \pm 9.64E-08	1.28\pm0.11E-05	0.25 \pm 2.20E-09	3.35 \pm 2.11E-08
Deer Near-Site (BFDNEAR 10/06)	70.4	2.37\pm0.71E-07	1.08 \pm 0.06E-05	1.69 \pm 2.76E-09	2.42\pm0.13E-06
Deer Near-Site (BFDNEAR 11/06)	72.8	6.95 \pm 9.41E-08	1.11\pm0.06E-05	-1.19 \pm 2.16E-09	3.71\pm1.85E-08
Deer Near-Site (BFDNEAR 12/06)	72.4	1.47 \pm 0.98E-07	1.01\pm0.05E-05	0.24 \pm 2.20E-09	5.74 \pm 0.32E-07

Note: Bolding convention applied to these data. See page F-2

Table F-3
2006 Radioactivity Concentrations in Food Crops

Location	% Moisture	H-3 ($\mu\text{Ci}/\text{mL}$)	K-40 ($\mu\text{Ci}/\text{g}$ - dry)	Co-60 ($\mu\text{Ci}/\text{g}$ - dry)	Sr-90 ($\mu\text{Ci}/\text{g}$ - dry)	Cs-137 ($\mu\text{Ci}/\text{g}$ - dry)
<u>APPLES</u>						
Background (BFVCTRA)	86.6	0.93 \pm 1.13E-07	7.15 \pm 0.69E-06	1.33 \pm 2.78E-08	0.51 \pm 2.26E-09	-1.04 \pm 2.72E-08
Near-Site (BFVNEAAF)	83.9	1.35 \pm 1.15E-07	9.94 \pm 0.53E-06	0.01 \pm 1.28E-08	5.14 \pm 2.40E-09	0.83 \pm 1.14E-08
<u>BEANS</u>						
Background (BFVCTRB)	84.0	-0.64 \pm 1.10E-07	2.94 \pm 0.13E-05	0.30 \pm 2.78E-08	9.20 \pm 3.12E-09	0.70 \pm 2.35E-08
Near-Site (BFVNEAB)	92.9	0.42 \pm 1.14E-07	3.22 \pm 0.14E-05	-1.56 \pm 3.25E-08	2.25 \pm 0.39E-08	2.07 \pm 2.63E-08
<u>CORN</u>						
Background (BFVCTRC)	75.4	0.28 \pm 1.12E-07	1.22 \pm 0.08E-05	-0.64 \pm 1.95E-08	-0.64 \pm 1.93E-09	1.80 \pm 1.84E-08
Near-Site (BFVNEAC)	81.3	0.54 \pm 1.12E-07	1.53 \pm 0.09E-05	-0.07 \pm 2.99E-08	1.53 \pm 1.84E-09	4.18 \pm 3.89E-08

Note: Bolding convention not applicable to these data.

Table F-4
2006 Radioactivity Concentrations in Edible Portions of Fish From
Cattaraugus Creek

Cattaraugus Creek above the Springville Dam (BFFCATC)

Annual 2006

Species	% Moisture	Sr-90 ($\mu\text{Ci/g - dry}$)	Cs-137 ($\mu\text{Ci/g - dry}$)
Hog-nosed Sucker	76.3	NR	-0.96 \pm 2.10E-08
Hog-nosed Sucker	79.3	NR	0.39 \pm 1.72E-08
Hog-nosed Sucker	79.4	NR	-0.33 \pm 2.13E-08
Hog-nosed Sucker	79.8	NR	-0.70 \pm 1.62E-08
Hog-nosed Sucker	79.1	NR	-0.85 \pm 2.18E-08
Hog-nosed Sucker	80.3	NR	0.86 \pm 1.56E-08
Hog-nosed Sucker	79.5	NR	-0.20 \pm 1.87E-08
Hog-nosed Sucker	81.4	NR	2.51 \pm 2.51E-08
Hog-nosed Sucker	79.6	NR	0.51 \pm 1.84E-08
Hog-nosed Sucker	79.5	NR	0.00 \pm 2.74E-08
Average % Moisture	79.4		
Median		NA	<1.98E-08
Maximum		NA	<2.74E-08
Minimum		NA	<1.56E-08

NA - Not applicable

NR - No strontium-90 data were reported because of a problem with analytical quality control.

Note: Bolding convention applied to these data. See page F-2

Table F-4 (continued)
2006 Radioactivity Concentrations in Edible Portions of Fish From
Cattaraugus Creek

Cattaraugus Creek below the Springville Dam (BFFCATD)

Annual 2006

Species	% Moisture	Sr-90 ($\mu\text{Ci/g - dry}$)	Cs-137 ($\mu\text{Ci/g - dry}$)
Steelhead Trout	74.4	-0.29 \pm 1.00E-09	3.02\pm2.24E-08
Steelhead Trout	74.8	7.77\pm2.21E-09	2.13 \pm 4.24E-08
Steelhead Trout	76.8	NR	0.74 \pm 1.66E-08
Steelhead Trout	75.3	-0.22 \pm 1.82E-09	0.75 \pm 1.62E-08
Steelhead Trout	75.0	0.59 \pm 2.45E-09	-0.58 \pm 1.94E-08
Steelhead Trout	76.2	2.10 \pm 2.37E-09	-0.42 \pm 1.33E-08
Steelhead Trout	70.3	1.42 \pm 1.19E-09	0.97 \pm 1.23E-08
Steelhead Trout	77.9	1.22 \pm 2.49E-09	0.60 \pm 1.34E-08
Steelhead Trout	78.4	NR	0.00 \pm 2.35E-08
Steelhead Trout	70.2	-1.45 \pm 1.03E-09	1.00 \pm 1.64E-08
Average % Moisture	74.9		
Median		<2.10E-09	<1.65E-08
Maximum		7.77E-09	3.02E-08
Minimum		<1.00E-09	<1.23E-08

NR - No strontium-90 data were reported because of a problem with analytical quality control.
Note: Bolding convention applied to these data. See page F-2

Table F-4 (concluded)
2006 Radioactivity Concentrations in Edible Portions of Fish From
Cattaraugus Creek

Cattaraugus Creek Background (BFFCTRL)

Annual 2006

Species	% Moisture	Sr-90 ($\mu\text{Ci/g}$ - dry)	Cs-137 ($\mu\text{Ci/g}$ - dry)
Brown Trout	78.0	NR	1.28 \pm 1.84E-08
White Sucker	79.2	NR	0.14 \pm 1.67E-08
Hog-nosed Sucker	78.7	NR	0.31 \pm 1.28E-08
Hog-nosed Sucker	79.2	NR	1.35 \pm 2.20E-08
Hog-nosed Sucker	77.9	1.54 \pm 2.84E-09	-4.91 \pm 9.84E-09
Brown Trout	80.6	NR	2.50\pm1.86E-08
Brown Trout	80.1	NR	1.18 \pm 4.86E-08
White Sucker	81.4	NR	0.25 \pm 1.49E-08
White Sucker	80.8	NR	1.28 \pm 1.71E-08
Hog-nosed Sucker	79.5	NR	2.28 \pm 2.77E-08
Average % Moisture	79.5		
Median		NA	<1.78E-08
Maximum		NA	2.50E-08
Minimum		NA	<9.84E-09

NA - Not applicable

NR - No strontium-90 data were reported because of a problem with analytical quality control.

Note: Bolding convention applied to these data. See page F-2 