



It is preferred that you take a milk sample only.



APPENDIX C - 3
Summary of Biological Data

TABLE C - 3.1

Radioactivity Concentrations ($\mu\text{Ci/mL}$) in Milk - 1990

LOCATION	H-3	Sr-90	I-129	Cs-134	Cs-137
NNW FARM (BFMREED) 1st Qtr 1990	<2.2 E-07	2.71 \pm 0.35 E-09	<9.9 E-10	<7.90 E-09	<9.39 E-09
WNW FARM (BFMCOBO) 1st Qtr 1990	<2.2 E-07	1.40 \pm 0.23 E-09	<9.9 E-10	<8.89 E-09	<8.55 E-09
CONTROL (BFMCTLS) 1st Qtr 1990	<2.2 E-07	3.00 \pm 0.37 E-09	<9.9 E-10	<8.64 E-09	<8.85 E-09
CONTROL (BFMCTLN) 1st Qtr 1990	4.63 \pm 1.52 E-07	<2.0 E-09	<9.9 E-10	<7.59 E-09	<7.68 E-09
NNW FARM (BFMREED) 2nd Qtr 1990	<2.1 E-07	3.31 \pm 1.79 E-10	<9.6 E-10	<9.4 E-09	<9.5 E-09
WNW FARM (BFMCOBO) 2nd Qtr 1990	3.85 \pm 1.38 E-07	1.57 \pm 0.24 E-09	<9.6 E-10	<7.0 E-09	1.50 \pm 0.56 E-08
CONTROL (BFMCTLS) 2nd Qtr 1990	<2.1 E-07	1.60 \pm 0.26 E-09	<9.6 E-10	<7.6 E-09	<1.1 E-08
CONTROL (BFMCTLN) 2nd Qtr 1990	1.65 \pm 0.24 E-06	9.17 \pm 2.49 E-10	<9.6 E-10	<1.0 E-08	<1.3 E-08
NNW FARM (BFMREED) 3rd Qtr 1990	<1.22 E-07	1.72 \pm 0.29 E-09	<4.85 E-10	<1.2 E-08	<1.8 E-08
WNW FARM (BFMCOBO) 3rd Qtr 1990	<1.24 E-07	4.11 \pm 0.49 E-09	<4.90 E-10	<6.2 E-09	<6.8 E-09
CONTROL (BFMCTLS) 3rd Qtr 1990	<1.26 E-07	2.51 \pm 0.38 E-09	<4.84 E-10	<1.2 E-08	<1.9 E-08
CONTROL (BFMCTLN) 3rd Qtr 1990	1.61 \pm 1.28 E-07	9.92 \pm 2.72 E-10	<4.92 E-10	<5.8 E-09	<4.8 E-09
NNW FARM (BFMREED) 4th Qtr 1990	1.7 \pm 0.27 E-06	1.87 \pm 0.29 E-09	<5.24 E-10	<1.0 E-08	1.12 \pm 0.99 E-08
WNW FARM (BFMCOBO) 4th Qtr 1990	3.82 \pm 0.45 E-06	3.12 \pm 0.40 E-09	<5.17 E-10	<3.1 E-09	<8.1 E-09
CONTROL (BFMCTLS) 4th Qtr 1990	3.76 \pm 1.78 E-07	1.99 \pm 0.32 E-09	<5.19 E-10	<8.7 E-09	<1.5 E-08
CONTROL (BFMCTLN) 4th Qtr 1990	2.60 \pm 1.73 E-07	1.79 \pm 0.30 E-09	<5.15 E-10	<6.0 E-09	<7.0 E-09
SE FARM (BFMWIDR) October 1990	2.33 \pm 1.74 E-07	5.98 \pm 0.68 E-09	<5.89 E-10	<1.1 E-08	<1.7 E-08
SSW FARM (BFMHAUR) November 1990	<1.69 E-07	4.97 \pm 0.60 E-09	<5.69 E-10	<5.2 E-09	<7.5 E-09

TABLE C - 3.2

Radioactivity Concentrations in Meat ($\mu\text{Ci/g Dry}$) - 1990

Location	% MOISTURE	SR-90	Cs-134	CS-137	K-40
DEER FLESH - NEAR SITE (BFDNEAR #1)	***	2.95±1.29E-09	<1.4E-07	<1.8E-07	7.84 ± 2.62E-06
DEER FLESH - NEAR SITE (BFDNEAR #2)	65.7	8.57±1.50E-09	<9.3E-08	2.30±0.93E-07	7.00 ± 2.01E-06
DEER FLESH - NEAR SITE (BFDNEAR #3)	67.1	N/A	<1.1E-07	<9.9E-08	2.28 ± 0.41E-05
DEER FLESH - BACKGROUND (BFDCTRL #1)	79.0	1.46±0.77E-09	<7.5E-08	<1.3E-07	1.06 ± 0.28E-05
DEER FLESH - BACKGROUND (BFDCTRL #2)	74.8	3.76 ± 2.05E-09	8.7E-08	2.83 ± 0.95E-07	1.21 ± 0.27E-05
DEER FLESH - BACKGROUND (BFDCTRL #3)	72.5	1.72±0.77E-09	<8.1E-08	<1.1E-07	9.89 ± 2.32E-06
BEEF FLESH - BACKGROUND (BFBCTRL)6/90	77.3	1.23 ± 0.23 E-08	<2.6 E-08	<2.8 E-8	1.23 ± 0.15 E-05
BEEF FLESH - NEAR SITE (BFBNEAR)6/90	75.5	4.27 ± 0.49 E-08	<5.2 E-08	<5.3 E-8	8.99 ± 1.33 E-06
BEEF FLESH - BACKGROUND (BFBCTRL)10/90	72.5	5.55±2.05E-09	<2.3E-08	<2.6E-08	9.52 ± 1.64E-06
BEEF FLESH - NEAR SITE (BFBNEAR)10/90	69.8	<1.55E-09	<1.0E-08	<2.7E-08	1.11± 0.16E-05

* N/A Not available

TABLE C - 3.3

Radioactivity Concentrations in Food Crops ($\mu\text{Ci/g Dry}$) - 1990

LOCATION	% Moisture	H-3 ($\mu\text{Ci/mL}$)	Sr-90	K-40	Co-60	Cs-137
BEANS - NEAR-SITE (BFVNEAR)	76.34	<8.69 E-07	8.38 ± 0.87 E-08	2.56 ± 0.43 E-05	<1.8 E-07	<1.5 E-07
BEANS - BACKGROUND (BFVCTRL)	92.27	<8.88 E-07	7.70 ± 0.82 E-08	3.10 ± 0.55 E-05	<1.4 E-07	<7.1 E-08
APPLES - NEAR-SITE (BNVNEAR)	85.87	<8.81 E-07	6.14 ± 0.70 E-08	8.24 ± 1.87 E-06	<1.0 E-07	<8.0 E-08
APPLES - BACKGROUND (BFVCTRL)	85.24	2.10 ± 1.09 E-06	1.35 ± 0.20 E-08	8.70 ± 1.73 E-06	<6.9 E-08	<2.8 E-08
CORN - NEAR-SITE (BFVNEAR)	54.26	<8.36 E-07	2.66 ± 1.26 E-09	5.20 ± 1.19 E-06	<7.1 E-08	<3.8 E-08
CORN - BACKGROUND (BFVCTRL)	78.74	<8.71 E-07	5.77 ± 1.35 E-09	1.46 ± 0.26 E-05	<8.2 E-08	<5.1 E-08
HAY - NEAR-SITE (BFHNEAR)	14.52	1.28 ± 0.96 E-06	5.49 ± 0.62 E-08	1.06 ± 0.30 E-05	<1.9 E-07	<2.8 E-07
HAY - BACKGROUND (BFHCTLS)	12.64	9.46 ± 8.74 E-07	6.71 ± 0.73 E-08	7.03 ± 1.95 E-06	<1.4 E-07	<1.2 E-07

TABLE C - 3.4

Radioactivity Concentrations in Fish Flesh from Cattaraugus Creek ($\mu\text{Ci/g}$ dry) - 1990

Cattaraugus Creek (BFFCATC) above Springville Dam

	1st Half 1990			2nd Half 1990		
	Sr-90	Cs-134	Cs-137	Sr-90	Cs-134	Cs-137
<i>Average</i>	N/A	<5.1 E-08	<6.1 E-08	N/A	N/A	N/A
<i>Median</i>	N/A	N/A	N/A	1.80E-08	<2.22E-07	<2.11E-07
<i>Geometric Deviation (Avg)</i>	N/A	N/A	N/A	1.64	1.68	1.52
<i>Maximum</i>	N/A	N/A	N/A	7.12±2.2E-08	<5.2E-07	<4.3E-07
<i>Minimum</i>	N/A	N/A	N/A	<1.40E-08	<8.8E-08	<8.7E-08
<i>Moisture (Average %)</i>	76.3			78.2		

Cattaraugus Creek (BFFCTRL) Background

	1st Half 1990			2nd Half 1990		
	Sr-90	Cs-134	Cs-137	Sr-90	Cs-134	Cs-137
<i>Average</i>	1.59 ± 0.52 E-08	N/A	N/A	N/A	N/A	N/A
<i>Median</i>	N/A	N/A	N/A	1.92E-08	<2.68E-07	<2.56E-07
<i>Geometric Deviation (Avg)</i>	N/A	N/A	N/A	2.02	1.82	1.88
<i>Maximum</i>	N/A	N/A	N/A	5.73±2.2E-08	<5.7E-07	<5.0E-07
<i>Minimum</i>	N/A	N/A	N/A	7.00±6.0E-09	<1.3E-07	<1.3E-07
<i>Moisture (Average %)</i>	82.1			77.6		

Cattaraugus Creek (BFFCATD) below Springville Dam

	1st Half 1990			2nd Half 1990		
	Sr-90	Cs-134	Cs-137	Sr-90	Cs-134	Cs-137
<i>Average</i>	6.22 ± 0.86 E-08	<4.1 E-08	<4.5 E-08	1.05 E-08	<6.75 E-08	<9.00 E-08
<i>Median</i>	N/A	N/A	N/A	3.80	1.17	1.21
<i>Geometric Deviation (Avg)</i>	N/A	N/A	N/A	2.45 E-07	<9.5 E-08	<1.1 E-07
<i>Maximum</i>	N/A	N/A	N/A	5.32 E-09	<6.2 E-08	5.68 E-08
<i>Minimum</i>	N/A	N/A	N/A	77.8		
<i>Moisture (Average %)</i>	82.4					

N/A Not available