Probabilistic results summary : RESRAD Default

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Part VI: Uncertainty Analysis

RESRAD Uncertainty Analysis Results

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Probabilistic Input

Number of Sample Runs: 3000

Number	Name	Distribution	Parameters								
1	DENSCV	TRUNCATED NORMAL	1.51	.159	.001	.999					
2	VCZ	CONTINUOUS LOGARITHMIC	4	5.E-8	0	.0007	.22	.005	.95	.2	1
3	TPCZ	TRUNCATED NORMAL	.43	.06	.001	.999					
4	HCCZ	LOGUNIFORM	786	17000							
5	BCZ	TRUNCATED LOGNORMAL-N	-.0235	.216	.001	.999					
6	EVAPTR	UNIFORM	.5	.75							
7	WIND	BOUNDED LOGNORMAL-N	1.445	.2419	1.4	13					
8	RUNOFF	UNIFORM	.1	.8							
9	DENSAQ	TRUNCATED NORMAL	1.51	.16	.001	.999					
10	TPSZ	TRUNCATED NORMAL	.43	.06	.001	.999					
11	EPSZ	TRUNCATED NORMAL	.383	.061	.001	.999					
12	HCSZ	LOGUNIFORM	786	17000							
13	HGWT	BOUNDED LOGNORMAL-N	-5.11	1.77	.00007	.5					
14	DWIBWT	TRIANGULAR	6	10	30						
15	MLINH	CONTINUOUS LINEAR	8	0	0	.000008	.0151	.000016	.1365	.00003	.8119
16	DM	TRIANGULAR	0	.15	.6						
17	DROOT	UNIFORM	.3	4							
18	WLAM	TRIANGULAR	5.1	18	84						
19	YV(1)	TRUNCATED LOGNORMAL-N	.56	.48	.001	.999					
20	RWET(2)	TRIANGULAR	.06	.67	.95						
21	SHF3	UNIFORM	.15	.95							
22	SHF1	BOUNDED LOGNORMAL-N	-1.3	.59	.044	1					
23	VCV	CONTINUOUS LOGARITHMIC	4	5.E-8	0	.0007	.22	.005	.95	.2	1
24	TPUZ(1)	TRUNCATED NORMAL	.43	.06	.001	.999					
25	EPUZ(1)	TRUNCATED NORMAL	.383	.061	.001	.999					
26	HCUZ(1)	LOGUNIFORM	786	17000							
27	BUZ(1)	TRUNCATED LOGNORMAL-N	-.0253	.216	.001	.999					
28	BRTF(27,1)	LOGNORMAL-N	-2.53	.916291							
29	BRTF(27,2)	LOGNORMAL-N	-3.51	1.029619							
30	BRTF(27,3)	LOGNORMAL-N	-6.21	.7							
31	BRTF(55,1)	LOGNORMAL-N	-3.22	.993252							
32	BRTF(55,2)	LOGNORMAL-N	-3	.405465							
33	BRTF(55,3)	LOGNORMAL-N	-4.61	.47							
34	BRTF(28,1)	LOGNORMAL-N	-3	.916291							
35	BRTF(28,2)	LOGNORMAL-N	-5.3	.916291							
36	BRTF(28,3)	LOGNORMAL-N	-3.91	.69315							
37	BRTF(38,1)	LOGNORMAL-N	-1.2	.993252							
38	BRTF(38,2)	LOGNORMAL-N	-4.61	.405465							
39	BRTF(38,3)	LOGNORMAL-N	-6.21	.47							
40	DENSCZ	TRUNCATED NORMAL	1.51	.16	.001	.999					
41	DENSUZ(1)	TRUNCATED NORMAL	1.51	.16	.001	.999					

Probabilistic results summary : RESRAD Default

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Probabilistic Total Dose Summary

Nuclide	Peak	Peak	DOSE(j,t), mrem/yr							
(j)	Time	Dose	t= 0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134										
Min	0.00E+00	1.50E+00	1.50E+00	1.07E+00	5.46E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.79E+01	2.79E+01	1.99E+01	1.01E+01	9.39E-01	3.00E-05	5.54E-14	0.00E+00	0.00E+00
Avg	0.00E+00	3.65E+00	3.65E+00	2.60E+00	1.33E+00	1.25E-01	4.30E-06	8.64E-15	0.00E+00	0.00E+00
Std	0.00E+00	1.67E+00	1.67E+00	1.19E+00	6.06E-01	5.83E-02	2.08E-06	4.18E-15	0.00E+00	0.00E+00
∑ALL										
Min	0.00E+00	1.50E+00	1.50E+00	1.07E+00	5.46E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	2.79E+01	2.79E+01	1.99E+01	1.01E+01	9.39E-01	3.00E-05	5.54E-14	0.00E+00	0.00E+00
Avg	0.00E+00	3.65E+00	3.65E+00	2.60E+00	1.33E+00	1.25E-01	4.30E-06	8.64E-15	0.00E+00	0.00E+00
Std	0.00E+00	1.67E+00	1.67E+00	1.19E+00	6.06E-01	5.83E-02	2.08E-06	4.18E-15	0.00E+00	0.00E+00

∑ALL is total dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Risk Summary

Nuclide	RISK(j,t)							
(j)	t= 0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	3.89E-06	2.70E-06	1.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	6.85E-05	4.88E-05	2.48E-05	2.30E-06	7.37E-11	1.37E-19	3.12E-39	1.19E-39
Avg	9.37E-06	6.69E-06	3.41E-06	3.20E-07	1.11E-11	2.23E-20	1.48E-42	4.40E-43
Std	4.17E-06	2.98E-06	1.52E-06	1.46E-07	5.23E-12	1.06E-20	0.00E+00	0.00E+00
∑ALL								
Min	3.89E-06	2.70E-06	1.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	6.85E-05	4.88E-05	2.48E-05	2.30E-06	7.37E-11	1.37E-19	3.12E-39	1.19E-39
Avg	9.37E-06	6.69E-06	3.41E-06	3.20E-07	1.11E-11	2.23E-20	1.48E-42	4.40E-43
Std	4.17E-06	2.98E-06	1.52E-06	1.46E-07	5.23E-12	1.06E-20	0.00E+00	0.00E+00

∑ALL is total risk summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Ground External

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	1.19E+00	8.49E-01	4.34E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	6.00E+00	4.29E+00	2.19E+00	2.09E-01	7.43E-06	1.54E-14	0.00E+00	0.00E+00
Avg	2.54E+00	1.81E+00	9.26E-01	8.72E-02	3.04E-06	6.24E-15	0.00E+00	0.00E+00
Std	8.88E-01	6.35E-01	3.24E-01	3.20E-02	1.20E-06	2.58E-15	0.00E+00	0.00E+00
∑ALL								
Min	1.19E+00	8.49E-01	4.34E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	6.00E+00	4.29E+00	2.19E+00	2.09E-01	7.43E-06	1.54E-14	0.00E+00	0.00E+00
Avg	2.54E+00	1.81E+00	9.26E-01	8.72E-02	3.04E-06	6.24E-15	0.00E+00	0.00E+00
Std	8.88E-01	6.35E-01	3.24E-01	3.20E-02	1.20E-06	2.58E-15	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Inhalation (w/o Radon)

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	1.50E-09	1.07E-09	5.48E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	2.87E-06	2.05E-06	1.05E-06	9.99E-08	3.57E-12	7.47E-21	0.00E+00	0.00E+00
Avg	4.40E-07	3.15E-07	1.61E-07	1.51E-08	5.29E-13	1.08E-21	0.00E+00	0.00E+00
Std	2.90E-07	2.08E-07	1.06E-07	1.02E-08	3.67E-13	7.69E-22	0.00E+00	0.00E+00
∑ALL								
Min	1.50E-09	1.07E-09	5.48E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	2.87E-06	2.05E-06	1.05E-06	9.99E-08	3.57E-12	7.47E-21	0.00E+00	0.00E+00
Avg	4.40E-07	3.15E-07	1.61E-07	1.51E-08	5.29E-13	1.08E-21	0.00E+00	0.00E+00
Std	2.90E-07	2.08E-07	1.06E-07	1.02E-08	3.67E-13	7.69E-22	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Radon (Water Ind.)

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
∑ALL								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Plant (Water Ind.)

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	2.68E-03	1.90E-03	9.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	7.06E+00	5.02E+00	2.54E+00	2.34E-01	7.99E-06	1.66E-14	0.00E+00	0.00E+00
Avg	3.04E-01	2.17E-01	1.10E-01	1.02E-02	3.41E-07	6.39E-16	0.00E+00	0.00E+00
Std	4.47E-01	3.18E-01	1.61E-01	1.50E-02	5.07E-07	9.76E-16	0.00E+00	0.00E+00
∑ALL								
Min	2.68E-03	1.90E-03	9.63E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	7.06E+00	5.02E+00	2.54E+00	2.34E-01	7.99E-06	1.66E-14	0.00E+00	0.00E+00
Avg	3.04E-01	2.17E-01	1.10E-01	1.02E-02	3.41E-07	6.39E-16	0.00E+00	0.00E+00
Std	4.47E-01	3.18E-01	1.61E-01	1.50E-02	5.07E-07	9.76E-16	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Meat (Water Ind.)

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	4.01E-02	2.86E-02	1.46E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	5.22E+00	3.71E+00	1.88E+00	1.73E-01	6.00E-06	1.25E-14	0.00E+00	0.00E+00
Avg	3.37E-01	2.40E-01	1.22E-01	1.14E-02	3.86E-07	7.48E-16	0.00E+00	0.00E+00
Std	3.79E-01	2.70E-01	1.37E-01	1.28E-02	4.37E-07	8.47E-16	0.00E+00	0.00E+00
∑ALL								
Min	4.01E-02	2.86E-02	1.46E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	5.22E+00	3.71E+00	1.88E+00	1.73E-01	6.00E-06	1.25E-14	0.00E+00	0.00E+00
Avg	3.37E-01	2.40E-01	1.22E-01	1.14E-02	3.86E-07	7.48E-16	0.00E+00	0.00E+00
Std	3.79E-01	2.70E-01	1.37E-01	1.28E-02	4.37E-07	8.47E-16	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Milk (Water Ind.)

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	2.34E-02	1.67E-02	8.53E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	1.53E+01	1.09E+01	5.52E+00	5.13E-01	1.62E-05	2.51E-14	0.00E+00	0.00E+00
Avg	4.67E-01	3.33E-01	1.69E-01	1.58E-02	5.30E-07	1.01E-15	0.00E+00	0.00E+00
Std	6.93E-01	4.94E-01	2.51E-01	2.35E-02	7.90E-07	1.48E-15	0.00E+00	0.00E+00
∑ALL								
Min	2.34E-02	1.67E-02	8.53E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	1.53E+01	1.09E+01	5.52E+00	5.13E-01	1.62E-05	2.51E-14	0.00E+00	0.00E+00
Avg	4.67E-01	3.33E-01	1.69E-01	1.58E-02	5.30E-07	1.01E-15	0.00E+00	0.00E+00
Std	6.93E-01	4.94E-01	2.51E-01	2.35E-02	7.90E-07	1.48E-15	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Soil Ingestion

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	8.81E-04	6.29E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	8.81E-04	6.30E-04	3.22E-04	3.07E-05	1.10E-09	2.30E-18	0.00E+00	0.00E+00
Avg	8.81E-04	6.29E-04	3.21E-04	3.02E-05	1.06E-09	2.16E-18	0.00E+00	0.00E+00
Std	3.78E-08	8.43E-08	9.58E-07	3.24E-06	1.84E-10	4.54E-19	0.00E+00	0.00E+00
∑ALL								
Min	8.81E-04	6.29E-04	2.70E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	8.81E-04	6.30E-04	3.22E-04	3.07E-05	1.10E-09	2.30E-18	0.00E+00	0.00E+00
Avg	8.81E-04	6.29E-04	3.21E-04	3.02E-05	1.06E-09	2.16E-18	0.00E+00	0.00E+00
Std	3.78E-08	8.43E-08	9.58E-07	3.24E-06	1.84E-10	4.54E-19	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

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Probabilistic Dose vs Pathway(i): Water Ingestion

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
∑ALL								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Fish Ingestion

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
∑ALL								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Radon (Water Dep.)

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
∑ALL								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Plant (Water Dep.)

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
∑ALL								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Meat (Water Dep.)

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
∑ALL								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Probabilistic Dose vs Pathway(i): Milk (Water Dep.)

Nuclide	DOSE(i,j,t), mrem/yr							
(j) t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Cs-134								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
∑ALL								
Min	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Avg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Std	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

∑ALL is total pathway dose summed for all nuclides.

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Cumulative Probability Summary for: Total Dose Over Pathways

Cumulative	Dose(t), mrem/yr							
Probability t=	0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
0.025	1.87E+00	1.34E+00	6.81E-01	6.15E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.050	2.03E+00	1.45E+00	7.40E-01	6.82E-02	2.25E-06	4.39E-15	0.00E+00	0.00E+00
0.075	2.12E+00	1.51E+00	7.72E-01	7.23E-02	2.46E-06	4.90E-15	0.00E+00	0.00E+00
0.100	2.20E+00	1.57E+00	8.01E-01	7.48E-02	2.59E-06	5.20E-15	0.00E+00	0.00E+00
0.125	2.28E+00	1.63E+00	8.31E-01	7.73E-02	2.69E-06	5.41E-15	0.00E+00	0.00E+00
0.150	2.36E+00	1.68E+00	8.59E-01	8.04E-02	2.79E-06	5.59E-15	0.00E+00	0.00E+00
0.175	2.42E+00	1.73E+00	8.83E-01	8.29E-02	2.89E-06	5.83E-15	0.00E+00	0.00E+00
0.200	2.47E+00	1.76E+00	9.00E-01	8.50E-02	2.96E-06	6.00E-15	0.00E+00	0.00E+00
0.225	2.53E+00	1.81E+00	9.22E-01	8.67E-02	3.03E-06	6.17E-15	0.00E+00	0.00E+00
0.250	2.60E+00	1.86E+00	9.47E-01	8.93E-02	3.10E-06	6.31E-15	0.00E+00	0.00E+00
0.275	2.65E+00	1.89E+00	9.66E-01	9.09E-02	3.18E-06	6.44E-15	0.00E+00	0.00E+00
0.300	2.71E+00	1.94E+00	9.88E-01	9.29E-02	3.24E-06	6.61E-15	0.00E+00	0.00E+00
0.325	2.78E+00	1.99E+00	1.01E+00	9.55E-02	3.33E-06	6.77E-15	0.00E+00	0.00E+00
0.350	2.85E+00	2.04E+00	1.04E+00	9.79E-02	3.41E-06	6.93E-15	0.00E+00	0.00E+00
0.375	2.91E+00	2.08E+00	1.06E+00	1.00E-01	3.50E-06	7.08E-15	0.00E+00	0.00E+00
0.400	2.99E+00	2.13E+00	1.09E+00	1.03E-01	3.58E-06	7.26E-15	0.00E+00	0.00E+00
0.425	3.05E+00	2.18E+00	1.11E+00	1.05E-01	3.67E-06	7.43E-15	0.00E+00	0.00E+00
0.450	3.13E+00	2.24E+00	1.14E+00	1.08E-01	3.76E-06	7.62E-15	0.00E+00	0.00E+00
0.475	3.20E+00	2.29E+00	1.17E+00	1.10E-01	3.86E-06	7.80E-15	0.00E+00	0.00E+00
0.500	3.28E+00	2.34E+00	1.19E+00	1.13E-01	3.94E-06	7.99E-15	0.00E+00	0.00E+00
0.525	3.35E+00	2.39E+00	1.22E+00	1.15E-01	4.03E-06	8.15E-15	0.00E+00	0.00E+00
0.550	3.43E+00	2.45E+00	1.25E+00	1.18E-01	4.12E-06	8.38E-15	0.00E+00	0.00E+00
0.575	3.51E+00	2.51E+00	1.28E+00	1.21E-01	4.22E-06	8.55E-15	0.00E+00	0.00E+00
0.600	3.59E+00	2.56E+00	1.31E+00	1.24E-01	4.33E-06	8.79E-15	0.00E+00	0.00E+00
0.625	3.68E+00	2.63E+00	1.34E+00	1.27E-01	4.43E-06	9.03E-15	0.00E+00	0.00E+00
0.650	3.77E+00	2.69E+00	1.37E+00	1.30E-01	4.55E-06	9.24E-15	0.00E+00	0.00E+00
0.675	3.87E+00	2.76E+00	1.41E+00	1.33E-01	4.65E-06	9.50E-15	0.00E+00	0.00E+00
0.700	3.94E+00	2.82E+00	1.44E+00	1.36E-01	4.78E-06	9.70E-15	0.00E+00	0.00E+00
0.725	4.06E+00	2.90E+00	1.48E+00	1.40E-01	4.92E-06	9.95E-15	0.00E+00	0.00E+00
0.750	4.20E+00	3.00E+00	1.53E+00	1.45E-01	5.06E-06	1.03E-14	0.00E+00	0.00E+00
0.775	4.33E+00	3.09E+00	1.58E+00	1.49E-01	5.22E-06	1.06E-14	0.00E+00	0.00E+00
0.800	4.49E+00	3.20E+00	1.63E+00	1.54E-01	5.42E-06	1.10E-14	0.00E+00	0.00E+00
0.825	4.67E+00	3.34E+00	1.70E+00	1.61E-01	5.64E-06	1.14E-14	0.00E+00	0.00E+00
0.850	4.91E+00	3.51E+00	1.78E+00	1.69E-01	5.88E-06	1.19E-14	0.00E+00	0.00E+00
0.875	5.18E+00	3.70E+00	1.89E+00	1.79E-01	6.23E-06	1.25E-14	0.00E+00	0.00E+00
0.900	5.47E+00	3.90E+00	1.99E+00	1.88E-01	6.54E-06	1.33E-14	0.00E+00	0.00E+00
0.925	5.85E+00	4.18E+00	2.14E+00	2.02E-01	7.04E-06	1.42E-14	0.00E+00	0.00E+00
0.950	6.40E+00	4.57E+00	2.33E+00	2.21E-01	7.69E-06	1.56E-14	0.00E+00	0.00E+00
0.975	7.61E+00	5.44E+00	2.72E+00	2.55E-01	8.90E-06	1.81E-14	0.00E+00	0.00E+00
1.000	2.79E+01	1.99E+01	1.01E+01	9.39E-01	3.00E-05	5.54E-14	0.00E+00	0.00E+00

Probabilistic results summary : RESRAD Default

File : C:\USERS\DAVID FAUVER\DOCUMENTS\ZION\RESRAD\TSD\SOIL DCGL\SENSITIVITY ANALYSIS\RESRAD INPUT FILE\ZION SOIL SENSITIVITY.RAD

Summary of dose at graphical times, reptition 1

Dose statistics at graphical times, mrem/yr

Time Years	Minimum	Maximum	Mean	Median	90%	95%	97.5%	99%
0.00E+00	1.50E+00	2.79E+01	3.66E+00	3.24E+00	5.52E+00	6.44E+00	7.70E+00	1.04E+01
1.00E+00	1.07E+00	1.99E+01	2.61E+00	2.32E+00	3.94E+00	4.60E+00	5.50E+00	7.37E+00
3.00E+00	5.46E-01	1.01E+01	1.33E+00	1.18E+00	2.01E+00	2.35E+00	2.80E+00	3.72E+00
1.00E+01	0.00E+00	9.39E-01	1.25E-01	1.12E-01	1.90E-01	2.23E-01	2.65E-01	3.41E-01
4.00E+01	0.00E+00	3.54E-05	5.09E-06	4.62E-06	7.85E-06	9.27E-06	1.08E-05	1.43E-05
4.05E+01	0.00E+00	3.00E-05	4.32E-06	3.92E-06	6.66E-06	7.86E-06	9.16E-06	1.22E-05
8.00E+01	0.00E+00	4.39E-11	7.27E-12	6.64E-12	1.13E-11	1.32E-11	1.55E-11	2.09E-11
1.00E+02	0.00E+00	4.84E-14	8.68E-15	7.95E-15	1.34E-14	1.58E-14	1.86E-14	2.53E-14
1.20E+02	0.00E+00	5.27E-17	1.04E-17	9.47E-18	1.61E-17	1.92E-17	2.23E-17	3.06E-17
1.60E+02	0.00E+00	6.53E-23	1.48E-23	1.35E-23	2.32E-23	2.73E-23	3.16E-23	4.42E-23
2.00E+02	0.00E+00	9.54E-29	2.00E-29	1.82E-29	3.29E-29	3.84E-29	4.56E-29	6.23E-29
2.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Probabilistic results summary : RESRAD Default

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Summary of dose at graphical times, reptition 2

Dose statistics at graphical times, mrem/yr

Time Years	Minimum	Maximum	Mean	Median	90%	95%	97.5%	99%
0.00E+00	1.50E+00	2.15E+01	3.63E+00	3.32E+00	5.44E+00	6.47E+00	7.80E+00	9.08E+00
1.00E+00	1.07E+00	1.54E+01	2.59E+00	2.37E+00	3.88E+00	4.62E+00	5.54E+00	6.49E+00
3.00E+00	5.47E-01	7.84E+00	1.32E+00	1.21E+00	1.98E+00	2.36E+00	2.81E+00	3.30E+00
1.00E+01	0.00E+00	7.47E-01	1.24E-01	1.15E-01	1.88E-01	2.20E-01	2.54E-01	3.12E-01
4.00E+01	0.00E+00	3.14E-05	5.05E-06	4.73E-06	7.64E-06	9.05E-06	1.05E-05	1.29E-05
4.05E+01	0.00E+00	2.66E-05	4.28E-06	4.01E-06	6.48E-06	7.67E-06	8.90E-06	1.09E-05
8.00E+01	0.00E+00	4.58E-11	7.19E-12	6.77E-12	1.08E-11	1.29E-11	1.47E-11	1.77E-11
1.00E+02	0.00E+00	5.54E-14	8.59E-15	8.10E-15	1.29E-14	1.55E-14	1.75E-14	2.08E-14
1.20E+02	0.00E+00	6.70E-17	1.03E-17	9.74E-18	1.54E-17	1.86E-17	2.12E-17	2.52E-17
1.60E+02	0.00E+00	9.78E-23	1.47E-23	1.39E-23	2.19E-23	2.67E-23	3.03E-23	3.59E-23
2.00E+02	0.00E+00	1.43E-28	1.98E-29	1.87E-29	3.09E-29	3.76E-29	4.28E-29	5.12E-29
2.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Probabilistic results summary : RESRAD Default

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Summary of dose at graphical times, reptition 3

Dose statistics at graphical times, mrem/yr

Time Years	Minimum	Maximum	Mean	Median	90%	95%	97.5%	99%
0.00E+00	1.62E+00	2.67E+01	3.65E+00	3.24E+00	5.43E+00	6.39E+00	7.34E+00	1.03E+01
1.00E+00	1.16E+00	1.90E+01	2.61E+00	2.31E+00	3.88E+00	4.56E+00	5.24E+00	7.33E+00
3.00E+00	5.91E-01	9.63E+00	1.33E+00	1.18E+00	1.98E+00	2.32E+00	2.68E+00	3.54E+00
1.00E+01	0.00E+00	8.91E-01	1.25E-01	1.12E-01	1.87E-01	2.21E-01	2.55E-01	3.37E-01
4.00E+01	0.00E+00	3.29E-05	5.08E-06	4.58E-06	7.69E-06	9.03E-06	1.02E-05	1.40E-05
4.05E+01	0.00E+00	2.78E-05	4.30E-06	3.88E-06	6.52E-06	7.66E-06	8.68E-06	1.19E-05
8.00E+01	0.00E+00	3.92E-11	7.24E-12	6.60E-12	1.11E-11	1.30E-11	1.49E-11	2.03E-11
1.00E+02	0.00E+00	4.21E-14	8.64E-15	7.92E-15	1.33E-14	1.56E-14	1.80E-14	2.40E-14
1.20E+02	0.00E+00	4.45E-17	1.03E-17	9.49E-18	1.60E-17	1.87E-17	2.18E-17	2.89E-17
1.60E+02	0.00E+00	5.44E-23	1.47E-23	1.36E-23	2.29E-23	2.68E-23	3.18E-23	4.16E-23
2.00E+02	0.00E+00	7.88E-29	1.99E-29	1.83E-29	3.23E-29	3.79E-29	4.42E-29	5.57E-29
2.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.40E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8.80E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.20E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9.60E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1.00E+03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Probabilistic results summary : RESRAD Default

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Peak of the mean dose (averaged over observations) at graphical times

Repetition	Time of peak mean dose	Peak mean dose
	Years	mrem/yr
1	0.000E+00	3.658E+00
2	0.000E+00	3.631E+00
3	0.000E+00	3.648E+00

Title : RESRAD Default

Input File : ZION SOIL SENSITIVITY.RAD

Coefficients for peak All Pathways Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	1		1		1		1	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of cover material	28	-0.02	29	-0.01	34	0.01	34	0.00
Contaminated zone erosion rate	9	-0.05	9	-0.02	12	0.04	12	0.01
Contaminated zone total porosity	13	0.04	13	0.02	31	0.01	31	0.00
Contaminated zone hydraulic conductivity	26	-0.02	26	-0.01	9	-0.04	9	-0.02
Contaminated zone b parameter	37	0.00	37	0.00	24	0.02	24	0.01
Evapotranspiration coefficient	39	0.00	39	0.00	35	-0.01	35	0.00
Wind Speed	27	-0.02	27	-0.01	19	0.03	19	0.01
Runoff coefficient	10	0.04	10	0.02	32	0.01	32	0.00
Density of saturated zone	40	0.00	40	0.00	40	0.00	40	0.00
Saturated zone total porosity	15	0.03	15	0.01	6	0.07	6	0.03
Saturated zone effective porosity	7	-0.06	7	-0.02	33	0.01	33	0.00
Saturated zone hydraulic conductivity	21	-0.02	21	-0.01	18	0.03	18	0.01
Saturated zone hydraulic gradient	16	0.03	16	0.01	22	0.02	22	0.01
Well pump intake depth	38	0.00	38	0.00	29	-0.02	29	-0.01
Mass loading for inhalation	12	0.04	12	0.02	25	0.02	25	0.01
Depth of soil mixing layer	6	0.06	6	0.03	11	-0.04	11	-0.01
Depth of roots	3	-0.52	3	-0.27	3	-0.60	3	-0.26
Weathering removal constant of all vegetation	20	0.02	20	0.01	20	0.02	20	0.01
Wet weight crop yield of fruit, grain and non-leafy vegetables	18	-0.03	19	-0.01	15	0.03	15	0.01
Wet foliar interception fraction of leafy vegetables	19	0.03	18	0.01	14	-0.03	14	-0.01
Indoor dust filtration factor	34	-0.01	34	0.00	10	-0.04	10	-0.01
External gamma shielding factor	2	0.76	2	0.52	1	0.90	1	0.72
Cover erosion rate	33	0.01	33	0.00	23	0.02	23	0.01
Total Porosity of Unsaturated zone 1	32	-0.01	32	-0.01	37	0.00	37	0.00
Effective Porosity of Unsaturated zone 1	25	-0.02	25	-0.01	41	0.00	41	0.00
Hydraulic Conductivity of Unsaturated zone 1	30	-0.01	30	-0.01	30	-0.01	30	0.00
b Parameter of Unsaturated zone 1	41	0.00	41	0.00	27	-0.02	27	-0.01
Plant transfer factor for Co	35	-0.01	35	0.00	28	0.02	28	0.01
Meat transfer factor for Co	11	0.04	11	0.02	26	0.02	26	0.01
Milk transfer factor for Co	36	0.01	36	0.00	39	0.00	39	0.00
Plant transfer factor for Cs	1	0.83	1	0.67	2	0.83	2	0.52
Meat transfer factor for Cs	5	0.20	5	0.09	5	0.22	5	0.08
Milk transfer factor for Cs	4	0.32	4	0.15	4	0.34	4	0.13
Plant transfer factor for Ni	29	0.02	28	0.01	13	0.04	13	0.01
Meat transfer factor for Ni	8	0.05	8	0.02	38	0.00	38	0.00
Milk transfer factor for Ni	24	0.02	24	0.01	7	0.06	7	0.02
Plant transfer factor for Sr	23	-0.02	23	-0.01	36	0.00	36	0.00
Meat transfer factor for Sr	31	0.01	31	0.01	8	0.05	8	0.02
Milk transfer factor for Sr	14	-0.03	14	-0.01	16	-0.03	16	-0.01
Density of contaminated zone	22	0.02	22	0.01	17	-0.03	17	-0.01
Density of Unsaturated zone 1	17	0.03	17	0.01	21	-0.02	21	-0.01
R-SQUARE		0.81		0.81		0.88		0.88

-Rank is set to zero if the dose is zero or the correlation matrix is singular.

-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Title : RESRAD Default
Input File : ZION SOIL SENSITIVITY.RAD

Coefficients for peak All Pathways Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	2		2		2		2	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of cover material	16	0.04	16	0.01	27	0.02	27	0.01
Contaminated zone erosion rate	36	0.00	36	0.00	40	0.00	40	0.00
Contaminated zone total porosity	25	-0.03	25	-0.01	14	-0.04	14	-0.01
Contaminated zone hydraulic conductivity	18	-0.04	18	-0.01	32	0.01	32	0.00
Contaminated zone b parameter	8	0.06	8	0.02	6	0.09	6	0.03
Evapotranspiration coefficient	17	0.04	17	0.01	29	-0.01	29	0.00
Wind Speed	23	-0.03	23	-0.01	38	0.01	38	0.00
Runoff coefficient	31	0.01	31	0.00	21	0.03	21	0.01
Density of saturated zone	28	-0.02	28	-0.01	34	-0.01	34	0.00
Saturated zone total porosity	34	0.00	34	0.00	19	-0.03	19	-0.01
Saturated zone effective porosity	11	0.05	11	0.02	13	-0.04	13	-0.02
Saturated zone hydraulic conductivity	41	0.00	41	0.00	30	0.01	30	0.00
Saturated zone hydraulic gradient	6	0.12	6	0.04	31	0.01	31	0.00
Well pump intake depth	7	0.07	7	0.02	33	-0.01	33	0.00
Mass loading for inhalation	29	0.01	29	0.01	26	0.02	26	0.01
Depth of soil mixing layer	39	0.00	39	0.00	10	-0.06	10	-0.02
Depth of roots	3	-0.59	3	-0.25	3	-0.57	3	-0.25
Weathering removal constant of all vegetation	10	-0.05	10	-0.02	11	-0.05	11	-0.02
Wet weight crop yield of fruit, grain and non-leafy vegetables	37	0.00	37	0.00	7	-0.06	7	-0.02
Wet foliar interception fraction of leafy vegetables	21	0.03	21	0.01	39	0.00	39	0.00
Indoor dust filtration factor	27	-0.02	27	-0.01	8	-0.06	8	-0.02
External gamma shielding factor	2	0.85	2	0.57	1	0.90	1	0.72
Cover erosion rate	26	-0.02	26	-0.01	36	-0.01	36	0.00
Total Porosity of Unsaturated zone 1	22	0.03	22	0.01	28	-0.01	28	-0.01
Effective Porosity of Unsaturated zone 1	14	0.04	14	0.01	16	0.03	16	0.01
Hydraulic Conductivity of Unsaturated zone 1	20	-0.03	20	-0.01	37	-0.01	37	0.00
b Parameter of Unsaturated zone 1	40	0.00	40	0.00	18	0.03	18	0.01
Plant transfer factor for Co	32	0.01	32	0.00	41	0.00	41	0.00
Meat transfer factor for Co	30	-0.01	30	0.00	17	0.03	17	0.01
Milk transfer factor for Co	13	-0.04	13	-0.01	23	0.02	23	0.01
Plant transfer factor for Cs	1	0.89	1	0.70	2	0.82	2	0.52
Meat transfer factor for Cs	5	0.20	5	0.07	5	0.16	5	0.06
Milk transfer factor for Cs	4	0.34	4	0.13	4	0.29	4	0.11
Plant transfer factor for Ni	38	0.00	38	0.00	22	-0.02	22	-0.01
Meat transfer factor for Ni	33	-0.01	33	0.00	35	0.01	35	0.00
Milk transfer factor for Ni	24	-0.03	24	-0.01	9	0.06	9	0.02
Plant transfer factor for Sr	12	-0.04	12	-0.02	20	-0.03	20	-0.01
Meat transfer factor for Sr	35	0.00	35	0.00	25	-0.02	25	-0.01
Milk transfer factor for Sr	15	-0.04	15	-0.01	24	-0.02	24	-0.01
Density of contaminated zone	9	-0.06	9	-0.02	12	0.05	12	0.02
Density of Unsaturated zone 1	19	-0.04	19	-0.01	15	0.03	15	0.01
R-SQUARE		0.88		0.88		0.87		0.87

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.

Title : RESRAD Default
Input File : ZION SOIL SENSITIVITY.RAD

Coefficients for peak All Pathways Dose

Coefficient =	PCC		SRC		PRCC		SRRC	
Repetition =	3		3		3		3	
Description of Probabilistic Variable	Sig	Coeff	Sig	Coeff	Sig	Coeff	Sig	Coeff
Density of cover material	39	0.00	39	0.00	8	0.05	8	0.02
Contaminated zone erosion rate	20	0.02	20	0.01	14	0.04	14	0.01
Contaminated zone total porosity	19	0.03	19	0.01	15	0.04	15	0.01
Contaminated zone hydraulic conductivity	35	-0.01	35	0.00	37	0.00	37	0.00
Contaminated zone b parameter	28	-0.02	28	-0.01	35	0.01	35	0.00
Evapotranspiration coefficient	9	-0.05	9	-0.02	26	0.01	26	0.01
Wind Speed	18	-0.03	18	-0.01	23	-0.02	23	-0.01
Runoff coefficient	34	-0.01	34	0.00	18	0.03	18	0.01
Density of saturated zone	6	0.06	6	0.02	31	0.01	31	0.00
Saturated zone total porosity	41	0.00	41	0.00	6	0.08	6	0.03
Saturated zone effective porosity	40	0.00	40	0.00	30	0.01	30	0.00
Saturated zone hydraulic conductivity	15	-0.03	15	-0.01	10	-0.04	10	-0.01
Saturated zone hydraulic gradient	26	0.02	26	0.01	33	-0.01	33	0.00
Well pump intake depth	31	-0.01	31	0.00	20	-0.02	20	-0.01
Mass loading for inhalation	7	-0.05	7	-0.02	21	-0.02	21	-0.01
Depth of soil mixing layer	17	-0.03	17	-0.01	11	-0.04	11	-0.01
Depth of roots	3	-0.59	3	-0.24	3	-0.60	3	-0.26
Weathering removal constant of all vegetation	23	-0.02	23	-0.01	28	-0.01	28	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	13	-0.03	13	-0.01	22	0.02	22	0.01
Wet foliar interception fraction of leafy vegetables	8	0.05	8	0.02	36	0.01	36	0.00
Indoor dust filtration factor	22	-0.02	22	-0.01	34	0.01	34	0.00
External gamma shielding factor	2	0.83	2	0.50	1	0.90	1	0.71
Cover erosion rate	21	-0.02	21	-0.01	32	0.01	32	0.00
Total Porosity of Unsaturated zone 1	38	-0.01	38	0.00	41	0.00	41	0.00
Effective Porosity of Unsaturated zone 1	27	0.02	27	0.01	27	0.01	27	0.01
Hydraulic Conductivity of Unsaturated zone 1	16	0.03	16	0.01	12	-0.04	12	-0.01
b Parameter of Unsaturated zone 1	25	0.02	25	0.01	29	0.01	29	0.00
Plant transfer factor for Co	29	0.02	29	0.01	25	0.02	25	0.01
Meat transfer factor for Co	12	-0.03	12	-0.01	17	0.03	17	0.01
Milk transfer factor for Co	11	0.04	11	0.01	24	-0.02	24	-0.01
Plant transfer factor for Cs	1	0.91	1	0.74	2	0.83	2	0.51
Meat transfer factor for Cs	5	0.23	5	0.08	5	0.29	5	0.11
Milk transfer factor for Cs	4	0.33	4	0.12	4	0.35	4	0.13
Plant transfer factor for Ni	14	0.03	14	0.01	16	0.03	16	0.01
Meat transfer factor for Ni	33	-0.01	33	0.00	13	-0.04	13	-0.01
Milk transfer factor for Ni	30	-0.02	30	-0.01	9	-0.05	9	-0.02
Plant transfer factor for Sr	32	-0.01	32	0.00	38	0.00	38	0.00
Meat transfer factor for Sr	24	0.02	24	0.01	39	0.00	39	0.00
Milk transfer factor for Sr	10	-0.04	10	-0.01	19	0.03	19	0.01
Density of contaminated zone	37	-0.01	37	0.00	40	0.00	40	0.00
Density of Unsaturated zone 1	36	-0.01	36	0.00	7	0.05	7	0.02
R-SQUARE		0.89		0.89		0.88		0.88

-Rank is set to zero if the dose is zero or the correlation matrix is singular.
-R-SQUARE varies between 0 and 1 and is called the coefficient of determination; it provides a measure of the variation in the dependent variable (Dose) explained by regression on the independent variables.