

Probabilistic results summary : RESRAD Default

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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 LOGARITHMIC4	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 LOGARITHMIC4	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				

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## Probabilistic Total Dose Summary

Nuclide (j)	Peak Time	Peak Dose	DOSE(j,t), mrem/yr							
			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
Ni-63										
Min	0.00E+00	4.68E-04	4.68E-04	4.64E-04	4.55E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	6.34E-01	6.34E-01	6.27E-01	6.15E-01	5.72E-01	4.19E-01	2.28E-01	2.91E-02	2.34E-05
Avg	0.00E+00	1.53E-02	1.53E-02	1.51E-02	1.47E-02	1.35E-02	9.63E-03	5.03E-03	5.10E-04	5.52E-07
Std	0.00E+00	2.46E-02	2.46E-02	2.43E-02	2.38E-02	2.21E-02	1.61E-02	8.68E-03	1.08E-03	1.38E-06
ΣALL										
Min	0.00E+00	4.68E-04	4.68E-04	4.64E-04	4.55E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max	0.00E+00	6.34E-01	6.34E-01	6.27E-01	6.15E-01	5.72E-01	4.19E-01	2.28E-01	2.91E-02	2.34E-05
Avg	0.00E+00	1.53E-02	1.53E-02	1.51E-02	1.47E-02	1.35E-02	9.63E-03	5.03E-03	5.10E-04	5.52E-07
Std	0.00E+00	2.46E-02	2.46E-02	2.43E-02	2.38E-02	2.21E-02	1.61E-02	8.68E-03	1.08E-03	1.38E-06

ΣALL is total dose summed for all nuclides.

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## Probabilistic Risk Summary

Nuclide (j)	t=	RISK(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
Ni-63									
Min		1.47E-08	1.12E-08	3.97E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		2.71E-05	2.69E-05	2.63E-05	2.45E-05	1.80E-05	9.77E-06	1.24E-06	1.02E-09
Avg		6.39E-07	6.32E-07	6.17E-07	5.71E-07	4.08E-07	2.13E-07	2.16E-08	2.34E-11
Std		1.05E-06	1.04E-06	1.01E-06	9.44E-07	6.88E-07	3.70E-07	4.65E-08	6.02E-11
ΣALL									
Min		1.47E-08	1.12E-08	3.97E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		2.71E-05	2.69E-05	2.63E-05	2.45E-05	1.80E-05	9.77E-06	1.24E-06	1.02E-09
Avg		6.39E-07	6.32E-07	6.17E-07	5.71E-07	4.08E-07	2.13E-07	2.16E-08	2.34E-11
Std		1.05E-06	1.04E-06	1.01E-06	9.44E-07	6.88E-07	3.70E-07	4.65E-08	6.02E-11

ΣALL is total risk summed for all nuclides.

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## Probabilistic Dose vs Pathway(i): Ground External

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
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
ΣALL									
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

ΣALL is total pathway dose summed for all nuclides.

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

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
Min		2.39E-10	2.37E-10	2.33E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		4.58E-07	4.54E-07	4.47E-07	4.22E-07	3.29E-07	2.02E-07	3.14E-08	6.45E-11
Avg		7.02E-08	6.95E-08	6.82E-08	6.31E-08	4.64E-08	2.61E-08	3.11E-09	2.02E-12
Std		4.63E-08	4.59E-08	4.50E-08	4.25E-08	3.23E-08	1.87E-08	3.09E-09	4.93E-12
ΣALL									
Min		2.39E-10	2.37E-10	2.33E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		4.58E-07	4.54E-07	4.47E-07	4.22E-07	3.29E-07	2.02E-07	3.14E-08	6.45E-11
Avg		7.02E-08	6.95E-08	6.82E-08	6.31E-08	4.64E-08	2.61E-08	3.11E-09	2.02E-12
Std		4.63E-08	4.59E-08	4.50E-08	4.25E-08	3.23E-08	1.87E-08	3.09E-09	4.93E-12

ΣALL is total pathway dose summed for all nuclides.

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

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
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
ΣALL									
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

ΣALL is total pathway dose summed for all nuclides.

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

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
Min		4.47E-05	4.42E-05	4.31E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		7.42E-02	7.34E-02	7.18E-02	6.65E-02	4.64E-02	2.20E-02	2.76E-03	7.56E-06
Avg		3.30E-03	3.26E-03	3.18E-03	2.91E-03	2.07E-03	1.06E-03	1.05E-04	7.41E-08
Std		4.53E-03	4.48E-03	4.39E-03	4.08E-03	2.98E-03	1.58E-03	1.99E-04	2.81E-07
ΣALL									
Min		4.47E-05	4.42E-05	4.31E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		7.42E-02	7.34E-02	7.18E-02	6.65E-02	4.64E-02	2.20E-02	2.76E-03	7.56E-06
Avg		3.30E-03	3.26E-03	3.18E-03	2.91E-03	2.07E-03	1.06E-03	1.05E-04	7.41E-08
Std		4.53E-03	4.48E-03	4.39E-03	4.08E-03	2.98E-03	1.58E-03	1.99E-04	2.81E-07

ΣALL is total pathway dose summed for all nuclides.



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

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
Min		7.86E-06	7.76E-06	7.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		1.07E-02	1.06E-02	1.04E-02	9.73E-03	7.30E-03	4.17E-03	6.36E-04	9.18E-07
Avg		4.77E-04	4.71E-04	4.60E-04	4.22E-04	3.02E-04	1.60E-04	1.68E-05	1.12E-08
Std		7.37E-04	7.28E-04	7.12E-04	6.62E-04	4.84E-04	2.62E-04	3.32E-05	4.18E-08
ΣALL									
Min		7.86E-06	7.76E-06	7.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		1.07E-02	1.06E-02	1.04E-02	9.73E-03	7.30E-03	4.17E-03	6.36E-04	9.18E-07
Avg		4.77E-04	4.71E-04	4.60E-04	4.22E-04	3.02E-04	1.60E-04	1.68E-05	1.12E-08
Std		7.37E-04	7.28E-04	7.12E-04	6.62E-04	4.84E-04	2.62E-04	3.32E-05	4.18E-08

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

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
Min		2.40E-04	2.38E-04	2.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		6.04E-01	5.98E-01	5.86E-01	5.45E-01	4.00E-01	2.18E-01	2.77E-02	2.04E-05
Avg		1.15E-02	1.13E-02	1.11E-02	1.02E-02	7.25E-03	3.80E-03	3.88E-04	2.81E-07
Std		2.12E-02	2.10E-02	2.05E-02	1.90E-02	1.39E-02	7.47E-03	9.25E-04	1.10E-06
ΣALL									
Min		2.40E-04	2.38E-04	2.34E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		6.04E-01	5.98E-01	5.86E-01	5.45E-01	4.00E-01	2.18E-01	2.77E-02	2.04E-05
Avg		1.15E-02	1.13E-02	1.11E-02	1.02E-02	7.25E-03	3.80E-03	3.88E-04	2.81E-07
Std		2.12E-02	2.10E-02	2.05E-02	1.90E-02	1.39E-02	7.47E-03	9.25E-04	1.10E-06

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## Probabilistic Dose vs Pathway(i): Soil Ingestion

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
Min		8.11E-06	8.00E-06	6.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		8.13E-06	8.07E-06	7.94E-06	7.52E-06	5.92E-06	3.72E-06	7.79E-07	3.27E-09
Avg		8.12E-06	8.05E-06	7.89E-06	7.29E-06	5.36E-06	3.01E-06	3.58E-07	2.42E-10
Std		3.66E-09	1.09E-08	3.54E-08	7.87E-07	9.56E-07	6.86E-07	2.24E-07	4.82E-10
ΣALL									
Min		8.11E-06	8.00E-06	6.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Max		8.13E-06	8.07E-06	7.94E-06	7.52E-06	5.92E-06	3.72E-06	7.79E-07	3.27E-09
Avg		8.12E-06	8.05E-06	7.89E-06	7.29E-06	5.36E-06	3.01E-06	3.58E-07	2.42E-10
Std		3.66E-09	1.09E-08	3.54E-08	7.87E-07	9.56E-07	6.86E-07	2.24E-07	4.82E-10

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## Probabilistic Dose vs Pathway(i): Water Ingestion

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
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	4.13E-06	1.03E-06
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-09	6.58E-08
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.66E-08	9.95E-08
ΣALL									
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	4.13E-06	1.03E-06
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-09	6.58E-08
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.66E-08	9.95E-08

ΣALL 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 (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
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
ΣALL									
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

ΣALL 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 (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
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
ΣALL									
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

ΣALL 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 (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
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	3.41E-07	1.99E-07
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.61E-10	6.22E-09
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-09	1.19E-08
ΣALL									
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	3.41E-07	1.99E-07
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.61E-10	6.22E-09
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.87E-09	1.19E-08

ΣALL 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 (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
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	1.69E-07	1.94E-07
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.84E-11	5.42E-09
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.78E-09	1.25E-08
ΣALL									
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	1.69E-07	1.94E-07
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.84E-11	5.42E-09
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.78E-09	1.25E-08

ΣALL is total pathway dose summed for all nuclides.



Probabilistic results summary : RESRAD Default

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

Nuclide (j)	t=	DOSE(i,j,t), mrem/yr							
		0.00E+00	1.00E+00	3.00E+00	1.00E+01	4.05E+01	1.00E+02	3.00E+02	1.00E+03
Ni-63									
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	7.43E-06	6.58E-06
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.29E-09	1.08E-07
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-07	2.47E-07
ΣALL									
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	7.43E-06	6.58E-06
Avg		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.29E-09	1.08E-07
Std		0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.59E-07	2.47E-07

ΣALL 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 Probability	Dose(t), mrem/yr							
	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	1.65E-03	1.63E-03	1.58E-03	1.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00
0.050	2.09E-03	2.07E-03	1.98E-03	1.67E-03	1.02E-03	4.35E-04	0.00E+00	0.00E+00
0.075	2.49E-03	2.46E-03	2.38E-03	2.07E-03	1.30E-03	6.22E-04	0.00E+00	0.00E+00
0.100	2.81E-03	2.78E-03	2.70E-03	2.37E-03	1.57E-03	7.64E-04	0.00E+00	0.00E+00
0.125	3.11E-03	3.08E-03	3.00E-03	2.68E-03	1.81E-03	8.87E-04	0.00E+00	0.00E+00
0.150	3.44E-03	3.39E-03	3.29E-03	2.93E-03	2.02E-03	1.00E-03	0.00E+00	0.00E+00
0.175	3.73E-03	3.68E-03	3.56E-03	3.23E-03	2.25E-03	1.13E-03	0.00E+00	0.00E+00
0.200	3.98E-03	3.91E-03	3.81E-03	3.48E-03	2.41E-03	1.23E-03	0.00E+00	0.00E+00
0.225	4.28E-03	4.24E-03	4.12E-03	3.71E-03	2.60E-03	1.34E-03	3.61E-05	0.00E+00
0.250	4.59E-03	4.53E-03	4.41E-03	3.99E-03	2.79E-03	1.44E-03	6.08E-05	0.00E+00
0.275	4.91E-03	4.85E-03	4.73E-03	4.30E-03	3.01E-03	1.52E-03	7.91E-05	0.00E+00
0.300	5.26E-03	5.18E-03	5.05E-03	4.60E-03	3.23E-03	1.62E-03	9.85E-05	0.00E+00
0.325	5.60E-03	5.53E-03	5.39E-03	4.89E-03	3.44E-03	1.76E-03	1.13E-04	1.13E-08
0.350	5.95E-03	5.88E-03	5.73E-03	5.23E-03	3.66E-03	1.90E-03	1.30E-04	2.80E-08
0.375	6.36E-03	6.29E-03	6.14E-03	5.58E-03	3.93E-03	2.01E-03	1.46E-04	5.86E-08
0.400	6.79E-03	6.70E-03	6.53E-03	5.88E-03	4.13E-03	2.11E-03	1.60E-04	7.80E-08
0.425	7.23E-03	7.14E-03	6.96E-03	6.32E-03	4.43E-03	2.27E-03	1.75E-04	1.06E-07
0.450	7.59E-03	7.51E-03	7.34E-03	6.69E-03	4.75E-03	2.41E-03	1.91E-04	1.33E-07
0.475	8.04E-03	7.96E-03	7.77E-03	7.10E-03	5.04E-03	2.57E-03	2.07E-04	1.54E-07
0.500	8.52E-03	8.43E-03	8.22E-03	7.52E-03	5.33E-03	2.75E-03	2.26E-04	1.80E-07
0.525	8.98E-03	8.86E-03	8.66E-03	7.89E-03	5.62E-03	2.94E-03	2.48E-04	2.05E-07
0.550	9.55E-03	9.40E-03	9.16E-03	8.37E-03	5.95E-03	3.08E-03	2.72E-04	2.28E-07
0.575	1.01E-02	9.98E-03	9.73E-03	8.95E-03	6.34E-03	3.30E-03	3.00E-04	2.55E-07
0.600	1.08E-02	1.06E-02	1.03E-02	9.50E-03	6.80E-03	3.49E-03	3.22E-04	2.84E-07
0.625	1.15E-02	1.13E-02	1.10E-02	1.01E-02	7.18E-03	3.77E-03	3.44E-04	3.14E-07
0.650	1.22E-02	1.20E-02	1.17E-02	1.08E-02	7.70E-03	4.00E-03	3.73E-04	3.47E-07
0.675	1.29E-02	1.27E-02	1.24E-02	1.14E-02	8.20E-03	4.26E-03	4.09E-04	3.92E-07
0.700	1.39E-02	1.38E-02	1.34E-02	1.23E-02	8.73E-03	4.55E-03	4.47E-04	4.35E-07
0.725	1.52E-02	1.50E-02	1.46E-02	1.34E-02	9.52E-03	4.91E-03	4.90E-04	4.80E-07
0.750	1.64E-02	1.62E-02	1.58E-02	1.45E-02	1.03E-02	5.33E-03	5.33E-04	5.32E-07
0.775	1.83E-02	1.81E-02	1.77E-02	1.62E-02	1.13E-02	5.83E-03	6.05E-04	6.12E-07
0.800	1.99E-02	1.97E-02	1.91E-02	1.75E-02	1.25E-02	6.43E-03	6.73E-04	6.82E-07
0.825	2.19E-02	2.17E-02	2.10E-02	1.94E-02	1.39E-02	7.15E-03	7.56E-04	7.55E-07
0.850	2.45E-02	2.42E-02	2.37E-02	2.17E-02	1.54E-02	8.01E-03	8.50E-04	8.89E-07
0.875	2.76E-02	2.73E-02	2.66E-02	2.44E-02	1.76E-02	9.15E-03	9.87E-04	1.05E-06
0.900	3.17E-02	3.13E-02	3.06E-02	2.83E-02	2.02E-02	1.08E-02	1.15E-03	1.31E-06
0.925	3.90E-02	3.84E-02	3.75E-02	3.49E-02	2.51E-02	1.31E-02	1.44E-03	1.65E-06
0.950	4.80E-02	4.74E-02	4.63E-02	4.26E-02	3.08E-02	1.69E-02	1.94E-03	2.30E-06
0.975	6.94E-02	6.89E-02	6.77E-02	6.16E-02	4.37E-02	2.39E-02	2.87E-03	3.28E-06
1.000	6.34E-01	6.27E-01	6.15E-01	5.72E-01	4.19E-01	2.28E-01	2.91E-02	2.34E-05

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

Time Years	Dose statistics at graphical times, mrem/yr							
	Minimum	Maximum	Mean	Median	90%	95%	97.5%	99%
0.00E+00	8.86E-04	2.89E-01	1.52E-02	8.34E-03	3.07E-02	4.99E-02	7.31E-02	1.29E-01
1.00E+00	8.77E-04	2.87E-01	1.50E-02	8.25E-03	3.04E-02	4.95E-02	7.25E-02	1.28E-01
3.00E+00	8.60E-04	2.82E-01	1.47E-02	8.07E-03	2.98E-02	4.86E-02	7.12E-02	1.24E-01
1.00E+01	0.00E+00	2.66E-01	1.35E-02	7.36E-03	2.75E-02	4.53E-02	6.69E-02	1.12E-01
4.00E+01	0.00E+00	2.06E-01	9.67E-03	5.30E-03	1.99E-02	3.25E-02	4.66E-02	7.70E-02
4.05E+01	0.00E+00	2.05E-01	9.62E-03	5.27E-03	1.98E-02	3.23E-02	4.64E-02	7.66E-02
8.00E+01	0.00E+00	1.47E-01	6.25E-03	3.46E-03	1.26E-02	2.14E-02	3.10E-02	5.15E-02
1.00E+02	0.00E+00	1.24E-01	5.02E-03	2.77E-03	1.03E-02	1.77E-02	2.41E-02	4.06E-02
1.20E+02	0.00E+00	1.03E-01	4.02E-03	2.21E-03	8.18E-03	1.40E-02	1.97E-02	3.34E-02
1.60E+02	0.00E+00	5.38E-02	2.55E-03	1.38E-03	5.25E-03	8.64E-03	1.22E-02	2.13E-02
2.00E+02	0.00E+00	2.60E-02	1.59E-03	8.55E-04	3.39E-03	5.13E-03	7.87E-03	1.41E-02
2.40E+02	0.00E+00	1.82E-02	9.87E-04	5.04E-04	2.13E-03	3.41E-03	5.19E-03	9.52E-03
2.80E+02	0.00E+00	1.28E-02	6.20E-04	2.90E-04	1.36E-03	2.22E-03	3.40E-03	6.37E-03
3.00E+02	0.00E+00	1.07E-02	4.96E-04	2.26E-04	1.11E-03	1.81E-03	2.79E-03	5.21E-03
3.20E+02	0.00E+00	9.00E-03	3.98E-04	1.75E-04	9.00E-04	1.48E-03	2.27E-03	4.26E-03
3.60E+02	0.00E+00	6.33E-03	2.57E-04	1.04E-04	5.88E-04	9.60E-04	1.55E-03	2.94E-03
4.00E+02	0.00E+00	4.46E-03	1.67E-04	6.07E-05	3.98E-04	6.30E-04	1.03E-03	2.11E-03
4.40E+02	0.00E+00	3.13E-03	1.10E-04	3.75E-05	2.68E-04	4.29E-04	6.65E-04	1.27E-03
4.80E+02	0.00E+00	2.20E-03	7.24E-05	2.04E-05	1.85E-04	2.90E-04	4.75E-04	8.73E-04
5.20E+02	0.00E+00	1.55E-03	4.80E-05	1.16E-05	1.23E-04	1.89E-04	3.21E-04	6.23E-04
5.60E+02	0.00E+00	1.09E-03	3.19E-05	6.65E-06	7.85E-05	1.28E-04	2.14E-04	4.26E-04
6.00E+02	0.00E+00	7.67E-04	2.14E-05	3.93E-06	5.17E-05	8.56E-05	1.43E-04	3.07E-04
6.40E+02	0.00E+00	5.40E-04	1.43E-05	2.39E-06	3.40E-05	5.88E-05	9.87E-05	2.08E-04
6.80E+02	0.00E+00	3.80E-04	9.69E-06	1.66E-06	2.35E-05	3.87E-05	6.66E-05	1.36E-04
7.20E+02	0.00E+00	2.67E-04	6.62E-06	1.12E-06	1.61E-05	2.66E-05	4.50E-05	8.86E-05
7.60E+02	0.00E+00	1.88E-04	4.56E-06	8.09E-07	1.12E-05	1.85E-05	3.04E-05	6.01E-05
8.00E+02	0.00E+00	1.33E-04	3.16E-06	6.70E-07	7.56E-06	1.28E-05	2.05E-05	4.34E-05
8.40E+02	0.00E+00	9.39E-05	2.22E-06	5.12E-07	5.17E-06	9.16E-06	1.39E-05	3.03E-05
8.80E+02	0.00E+00	6.63E-05	1.56E-06	3.83E-07	3.61E-06	6.15E-06	9.63E-06	2.10E-05
9.20E+02	0.00E+00	4.68E-05	1.11E-06	2.91E-07	2.60E-06	4.34E-06	6.65E-06	1.46E-05
9.60E+02	0.00E+00	3.31E-05	7.89E-07	2.18E-07	1.84E-06	3.18E-06	4.56E-06	1.02E-05
1.00E+03	0.00E+00	2.34E-05	5.66E-07	1.68E-07	1.31E-06	2.20E-06	3.12E-06	7.10E-06

Probabilistic results summary : RESRAD Default

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## Summary of dose at graphical times, reptition 2

Time Years	Dose statistics at graphical times, mrem/yr							
	Minimum	Maximum	Mean	Median	90%	95%	97.5%	99%
0.00E+00	4.68E-04	6.34E-01	1.56E-02	8.63E-03	3.17E-02	4.74E-02	7.02E-02	1.35E-01
1.00E+00	4.64E-04	6.27E-01	1.55E-02	8.54E-03	3.14E-02	4.69E-02	6.94E-02	1.34E-01
3.00E+00	4.55E-04	6.15E-01	1.51E-02	8.32E-03	3.07E-02	4.59E-02	6.78E-02	1.32E-01
1.00E+01	0.00E+00	5.72E-01	1.39E-02	7.60E-03	2.80E-02	4.26E-02	6.36E-02	1.25E-01
4.00E+01	0.00E+00	4.22E-01	9.96E-03	5.36E-03	2.02E-02	3.14E-02	4.43E-02	8.93E-02
4.05E+01	0.00E+00	4.19E-01	9.91E-03	5.29E-03	2.01E-02	3.13E-02	4.40E-02	8.88E-02
8.00E+01	0.00E+00	2.80E-01	6.45E-03	3.34E-03	1.33E-02	2.04E-02	3.02E-02	5.42E-02
1.00E+02	0.00E+00	2.28E-01	5.19E-03	2.67E-03	1.09E-02	1.68E-02	2.52E-02	4.21E-02
1.20E+02	0.00E+00	1.86E-01	4.16E-03	2.15E-03	9.00E-03	1.37E-02	2.02E-02	3.27E-02
1.60E+02	0.00E+00	1.23E-01	2.66E-03	1.34E-03	5.77E-03	9.14E-03	1.36E-02	2.00E-02
2.00E+02	0.00E+00	8.18E-02	1.68E-03	8.04E-04	3.84E-03	5.71E-03	8.68E-03	1.30E-02
2.40E+02	0.00E+00	5.41E-02	1.07E-03	4.82E-04	2.42E-03	3.74E-03	5.65E-03	9.28E-03
2.80E+02	0.00E+00	3.58E-02	6.77E-04	2.86E-04	1.53E-03	2.47E-03	3.61E-03	6.64E-03
3.00E+02	0.00E+00	2.91E-02	5.42E-04	2.23E-04	1.21E-03	1.99E-03	2.97E-03	5.34E-03
3.20E+02	0.00E+00	2.36E-02	4.35E-04	1.75E-04	9.95E-04	1.64E-03	2.39E-03	4.12E-03
3.60E+02	0.00E+00	1.56E-02	2.81E-04	1.05E-04	6.31E-04	1.14E-03	1.60E-03	2.75E-03
4.00E+02	0.00E+00	1.03E-02	1.82E-04	6.12E-05	4.22E-04	7.55E-04	1.07E-03	1.83E-03
4.40E+02	0.00E+00	6.74E-03	1.19E-04	3.75E-05	2.70E-04	4.89E-04	7.02E-04	1.17E-03
4.80E+02	0.00E+00	4.42E-03	7.74E-05	2.23E-05	1.69E-04	3.29E-04	4.52E-04	8.02E-04
5.20E+02	0.00E+00	2.89E-03	5.08E-05	1.23E-05	1.15E-04	2.17E-04	3.07E-04	5.17E-04
5.60E+02	0.00E+00	1.89E-03	3.35E-05	7.38E-06	7.79E-05	1.45E-04	2.12E-04	3.49E-04
6.00E+02	0.00E+00	1.23E-03	2.23E-05	4.47E-06	5.07E-05	9.72E-05	1.40E-04	2.35E-04
6.40E+02	0.00E+00	7.99E-04	1.49E-05	2.80E-06	3.48E-05	6.57E-05	9.87E-05	1.59E-04
6.80E+02	0.00E+00	5.17E-04	1.00E-05	1.84E-06	2.31E-05	4.55E-05	6.57E-05	1.11E-04
7.20E+02	0.00E+00	3.34E-04	6.78E-06	1.39E-06	1.56E-05	3.00E-05	4.40E-05	7.79E-05
7.60E+02	0.00E+00	2.15E-04	4.63E-06	9.92E-07	1.08E-05	2.04E-05	3.10E-05	5.15E-05
8.00E+02	0.00E+00	1.38E-04	3.19E-06	7.29E-07	7.54E-06	1.39E-05	2.13E-05	3.65E-05
8.40E+02	0.00E+00	8.76E-05	2.21E-06	5.31E-07	5.20E-06	9.11E-06	1.46E-05	2.67E-05
8.80E+02	0.00E+00	5.55E-05	1.55E-06	4.27E-07	3.77E-06	6.59E-06	9.90E-06	1.84E-05
9.20E+02	0.00E+00	3.60E-05	1.09E-06	3.15E-07	2.63E-06	4.54E-06	6.84E-06	1.07E-05
9.60E+02	0.00E+00	2.59E-05	7.73E-07	2.53E-07	1.89E-06	3.24E-06	4.55E-06	7.44E-06
1.00E+03	0.00E+00	1.86E-05	5.52E-07	1.95E-07	1.28E-06	2.30E-06	3.09E-06	5.11E-06

Probabilistic results summary : RESRAD Default

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## Summary of dose at graphical times, reptition 3

Time Years	Dose statistics at graphical times, mrem/yr							
	Minimum	Maximum	Mean	Median	90%	95%	97.5%	99%
0.00E+00	8.33E-04	2.48E-01	1.49E-02	8.53E-03	3.36E-02	4.93E-02	6.54E-02	1.00E-01
1.00E+00	8.23E-04	2.45E-01	1.47E-02	8.43E-03	3.33E-02	4.88E-02	6.48E-02	9.92E-02
3.00E+00	8.05E-04	2.39E-01	1.44E-02	8.21E-03	3.25E-02	4.80E-02	6.37E-02	9.70E-02
1.00E+01	0.00E+00	2.20E-01	1.31E-02	7.50E-03	2.93E-02	4.26E-02	5.89E-02	8.47E-02
4.00E+01	0.00E+00	1.54E-01	9.41E-03	5.39E-03	2.11E-02	3.04E-02	4.29E-02	6.22E-02
4.05E+01	0.00E+00	1.53E-01	9.36E-03	5.37E-03	2.11E-02	3.02E-02	4.26E-02	6.19E-02
8.00E+01	0.00E+00	9.39E-02	6.08E-03	3.47E-03	1.37E-02	1.98E-02	2.86E-02	4.24E-02
1.00E+02	0.00E+00	7.29E-02	4.88E-03	2.76E-03	1.10E-02	1.58E-02	2.34E-02	3.53E-02
1.20E+02	0.00E+00	5.63E-02	3.92E-03	2.22E-03	8.96E-03	1.29E-02	1.82E-02	2.94E-02
1.60E+02	0.00E+00	3.36E-02	2.50E-03	1.37E-03	5.78E-03	8.78E-03	1.19E-02	1.89E-02
2.00E+02	0.00E+00	2.26E-02	1.56E-03	8.30E-04	3.62E-03	5.48E-03	7.81E-03	1.33E-02
2.40E+02	0.00E+00	1.55E-02	9.77E-04	5.02E-04	2.30E-03	3.56E-03	5.27E-03	8.60E-03
2.80E+02	0.00E+00	1.07E-02	6.18E-04	3.02E-04	1.45E-03	2.38E-03	3.52E-03	5.74E-03
3.00E+02	0.00E+00	8.83E-03	4.93E-04	2.32E-04	1.17E-03	1.94E-03	2.88E-03	4.74E-03
3.20E+02	0.00E+00	7.32E-03	3.94E-04	1.82E-04	9.36E-04	1.54E-03	2.31E-03	3.90E-03
3.60E+02	0.00E+00	5.03E-03	2.52E-04	1.04E-04	6.17E-04	1.01E-03	1.55E-03	2.65E-03
4.00E+02	0.00E+00	3.45E-03	1.63E-04	6.17E-05	4.00E-04	6.88E-04	1.02E-03	1.80E-03
4.40E+02	0.00E+00	2.37E-03	1.07E-04	3.90E-05	2.73E-04	4.54E-04	6.95E-04	1.24E-03
4.80E+02	0.00E+00	1.63E-03	6.97E-05	2.21E-05	1.80E-04	3.07E-04	4.87E-04	8.56E-04
5.20E+02	0.00E+00	1.12E-03	4.58E-05	1.25E-05	1.21E-04	1.99E-04	3.18E-04	5.65E-04
5.60E+02	0.00E+00	7.69E-04	3.03E-05	6.89E-06	8.04E-05	1.36E-04	2.07E-04	3.95E-04
6.00E+02	0.00E+00	5.28E-04	2.01E-05	4.04E-06	5.40E-05	9.12E-05	1.42E-04	2.72E-04
6.40E+02	0.00E+00	3.63E-04	1.35E-05	2.58E-06	3.64E-05	6.26E-05	9.47E-05	1.78E-04
6.80E+02	0.00E+00	2.49E-04	9.13E-06	1.69E-06	2.35E-05	4.37E-05	6.67E-05	1.18E-04
7.20E+02	0.00E+00	1.71E-04	6.22E-06	1.20E-06	1.52E-05	2.96E-05	4.43E-05	8.29E-05
7.60E+02	0.00E+00	1.18E-04	4.27E-06	8.43E-07	1.03E-05	2.04E-05	3.05E-05	5.92E-05
8.00E+02	0.00E+00	8.08E-05	2.96E-06	6.44E-07	7.33E-06	1.38E-05	2.05E-05	4.22E-05
8.40E+02	0.00E+00	5.55E-05	2.07E-06	5.34E-07	4.88E-06	9.72E-06	1.42E-05	3.01E-05
8.80E+02	0.00E+00	3.81E-05	1.46E-06	3.94E-07	3.54E-06	6.92E-06	1.01E-05	2.09E-05
9.20E+02	0.00E+00	2.66E-05	1.04E-06	2.94E-07	2.50E-06	4.65E-06	7.25E-06	1.38E-05
9.60E+02	0.00E+00	1.89E-05	7.44E-07	2.29E-07	1.84E-06	3.32E-06	5.21E-06	9.94E-06
1.00E+03	0.00E+00	1.37E-05	5.37E-07	1.70E-07	1.32E-06	2.39E-06	3.58E-06	6.93E-06

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	1.521E-02
2	0.000E+00	1.564E-02
3	0.000E+00	1.493E-02

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	17	-0.03	17	-0.02	23	0.03	23	0.01
Contaminated zone erosion rate	31	0.01	31	0.01	35	0.01	35	0.00
Contaminated zone total porosity	14	-0.04	14	-0.02	41	0.00	41	0.00
Contaminated zone hydraulic conductivity	28	0.02	28	0.01	30	-0.01	30	0.00
Contaminated zone b parameter	34	0.01	34	0.01	18	-0.04	18	-0.01
Evapotranspiration coefficient	40	0.00	40	0.00	32	0.01	32	0.00
Wind Speed	30	0.01	30	0.01	13	-0.05	13	-0.01
Runoff coefficient	9	0.05	9	0.03	37	0.01	37	0.00
Density of saturated zone	10	0.05	10	0.03	39	-0.01	39	0.00
Saturated zone total porosity	26	-0.02	26	-0.01	34	0.01	34	0.00
Saturated zone effective porosity	6	-0.07	6	-0.04	7	0.07	7	0.02
Saturated zone hydraulic conductivity	41	0.00	41	0.00	11	0.05	11	0.01
Saturated zone hydraulic gradient	4	0.08	4	0.04	31	0.01	31	0.00
Well pump intake depth	36	-0.01	36	0.00	19	0.03	19	0.01
Mass loading for inhalation	25	0.02	25	0.01	8	-0.06	8	-0.01
Depth of soil mixing layer	33	0.01	33	0.01	20	0.03	20	0.01
Depth of roots	3	-0.45	3	-0.26	3	-0.86	3	-0.40
Weathering removal constant of all vegetation	18	-0.03	18	-0.02	36	0.01	36	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	37	0.01	37	0.00	26	0.02	26	0.00
Wet foliar interception fraction of leafy vegetables	7	0.06	7	0.03	29	-0.01	29	0.00
Indoor dust filtration factor	20	0.03	20	0.01	12	-0.05	12	-0.01
External gamma shielding factor	15	-0.04	15	-0.02	21	0.03	21	0.01
Cover erosion rate	8	0.06	8	0.03	40	0.00	40	0.00
Total Porosity of Unsaturated zone 1	24	-0.02	24	-0.01	10	0.05	10	0.01
Effective Porosity of Unsaturated zone 1	19	-0.03	19	-0.02	27	0.01	27	0.00
Hydraulic Conductivity of Unsaturated zone 1	12	0.05	12	0.03	17	-0.04	17	-0.01
b Parameter of Unsaturated zone 1	5	0.07	5	0.04	5	-0.08	5	-0.02
Plant transfer factor for Co	13	-0.04	13	-0.02	16	0.04	16	0.01
Meat transfer factor for Co	22	-0.03	22	-0.01	22	0.03	22	0.01
Milk transfer factor for Co	38	0.00	38	0.00	15	0.04	14	0.01
Plant transfer factor for Cs	29	0.01	29	0.01	38	0.01	38	0.00
Meat transfer factor for Cs	27	-0.02	27	-0.01	25	0.02	24	0.00
Milk transfer factor for Cs	21	0.03	21	0.01	33	-0.01	33	0.00
Plant transfer factor for Ni	1	0.79	1	0.67	1	0.95	1	0.74
Meat transfer factor for Ni	23	0.02	23	0.01	4	0.15	4	0.04
Milk transfer factor for Ni	2	0.62	2	0.42	2	0.90	2	0.50
Plant transfer factor for Sr	32	0.01	32	0.01	6	-0.08	6	-0.02
Meat transfer factor for Sr	16	0.04	16	0.02	14	0.04	15	0.01
Milk transfer factor for Sr	39	0.00	39	0.00	28	0.01	28	0.00
Density of contaminated zone	11	-0.05	11	-0.03	24	0.02	25	0.00
Density of Unsaturated zone 1	35	0.01	35	0.00	9	-0.05	9	-0.01
R-SQUARE		0.73		0.73		0.94		0.94

-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	7	0.06	7	0.04	32	-0.01	32	0.00
Contaminated zone erosion rate	8	-0.05	8	-0.03	11	0.05	11	0.01
Contaminated zone total porosity	10	0.05	10	0.03	18	-0.03	18	-0.01
Contaminated zone hydraulic conductivity	26	0.01	26	0.01	35	0.01	35	0.00
Contaminated zone b parameter	30	-0.01	30	-0.01	28	0.02	28	0.00
Evapotranspiration coefficient	9	-0.05	9	-0.03	27	0.02	27	0.01
Wind Speed	14	-0.04	14	-0.02	34	0.01	34	0.00
Runoff coefficient	5	0.08	5	0.05	10	-0.05	10	-0.01
Density of saturated zone	39	0.00	39	0.00	17	0.03	17	0.01
Saturated zone total porosity	4	-0.09	4	-0.06	7	0.06	7	0.02
Saturated zone effective porosity	33	-0.01	33	0.00	38	0.01	38	0.00
Saturated zone hydraulic conductivity	34	0.01	34	0.00	37	0.01	37	0.00
Saturated zone hydraulic gradient	29	-0.01	29	-0.01	40	0.00	40	0.00
Well pump intake depth	17	-0.03	17	-0.02	22	0.03	22	0.01
Mass loading for inhalation	13	0.04	13	0.02	16	-0.04	16	-0.01
Depth of soil mixing layer	38	0.00	38	0.00	14	-0.04	14	-0.01
Depth of roots	3	-0.34	3	-0.23	3	-0.84	3	-0.38
Weathering removal constant of all vegetation	18	-0.03	18	-0.02	9	0.06	9	0.01
Wet weight crop yield of fruit, grain and non-leafy vegetables	41	0.00	41	0.00	24	0.03	24	0.01
Wet foliar interception fraction of leafy vegetables	27	0.01	27	0.01	36	-0.01	36	0.00
Indoor dust filtration factor	36	-0.01	36	0.00	20	0.03	20	0.01
External gamma shielding factor	15	-0.03	15	-0.02	12	0.05	12	0.01
Cover erosion rate	25	-0.02	25	-0.01	5	0.07	5	0.02
Total Porosity of Unsaturated zone 1	31	-0.01	31	-0.01	15	-0.04	15	-0.01
Effective Porosity of Unsaturated zone 1	22	0.02	22	0.01	21	-0.03	21	-0.01
Hydraulic Conductivity of Unsaturated zone 1	6	-0.06	6	-0.04	8	0.06	8	0.01
b Parameter of Unsaturated zone 1	16	0.03	16	0.02	39	0.00	39	0.00
Plant transfer factor for Co	20	0.02	19	0.02	29	-0.01	29	0.00
Meat transfer factor for Co	21	-0.02	21	-0.02	30	-0.01	30	0.00
Milk transfer factor for Co	24	-0.02	24	-0.01	19	-0.03	19	-0.01
Plant transfer factor for Cs	28	-0.01	28	-0.01	26	-0.02	26	-0.01
Meat transfer factor for Cs	35	-0.01	35	0.00	33	-0.01	33	0.00
Milk transfer factor for Cs	12	0.04	12	0.03	31	0.01	31	0.00
Plant transfer factor for Ni	1	0.65	1	0.55	1	0.95	1	0.74
Meat transfer factor for Ni	32	0.01	32	0.01	4	0.15	4	0.04
Milk transfer factor for Ni	2	0.58	2	0.46	2	0.89	2	0.49
Plant transfer factor for Sr	40	0.00	40	0.00	13	0.04	13	0.01
Meat transfer factor for Sr	11	0.04	11	0.03	41	0.00	41	0.00
Milk transfer factor for Sr	23	-0.02	23	-0.01	6	-0.07	6	-0.02
Density of contaminated zone	19	-0.02	20	-0.02	25	-0.03	25	-0.01
Density of Unsaturated zone 1	37	0.00	37	0.00	23	-0.03	23	-0.01
R-SQUARE		0.60		0.60		0.94		0.94

-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	38	0.00	38	0.00	18	0.02	18	0.01
Contaminated zone erosion rate	5	0.08	5	0.04	17	-0.03	17	-0.01
Contaminated zone total porosity	24	0.02	24	0.01	24	0.02	24	0.00
Contaminated zone hydraulic conductivity	41	0.00	41	0.00	34	0.01	34	0.00
Contaminated zone b parameter	26	0.02	26	0.01	23	-0.02	23	0.00
Evapotranspiration coefficient	27	0.02	27	0.01	32	0.01	32	0.00
Wind Speed	8	0.06	8	0.03	10	-0.05	10	-0.01
Runoff coefficient	30	-0.02	30	-0.01	19	0.02	19	0.01
Density of saturated zone	31	-0.02	31	-0.01	41	0.00	41	0.00
Saturated zone total porosity	22	-0.02	23	-0.01	39	0.00	39	0.00
Saturated zone effective porosity	17	-0.03	17	-0.02	20	0.02	20	0.00
Saturated zone hydraulic conductivity	37	0.00	37	0.00	21	-0.02	21	0.00
Saturated zone hydraulic gradient	35	0.01	35	0.00	13	-0.03	13	-0.01
Well pump intake depth	23	-0.02	22	-0.01	31	-0.01	31	0.00
Mass loading for inhalation	32	-0.01	32	-0.01	27	-0.01	27	0.00
Depth of soil mixing layer	4	-0.08	4	-0.04	9	0.06	9	0.01
Depth of roots	3	-0.48	3	-0.28	3	-0.86	3	-0.39
Weathering removal constant of all vegetation	40	0.00	40	0.00	36	0.01	36	0.00
Wet weight crop yield of fruit, grain and non-leafy vegetables	29	0.02	29	0.01	40	0.00	40	0.00
Wet foliar interception fraction of leafy vegetables	6	-0.08	6	-0.04	12	0.04	12	0.01
Indoor dust filtration factor	20	-0.03	20	-0.01	6	0.06	6	0.01
External gamma shielding factor	15	-0.03	15	-0.02	22	0.02	22	0.00
Cover erosion rate	21	0.02	21	0.01	35	0.01	35	0.00
Total Porosity of Unsaturated zone 1	39	0.00	39	0.00	15	0.03	15	0.01
Effective Porosity of Unsaturated zone 1	12	0.05	12	0.03	26	0.02	26	0.00
Hydraulic Conductivity of Unsaturated zone 1	10	0.05	11	0.03	8	-0.06	8	-0.01
b Parameter of Unsaturated zone 1	13	-0.05	13	-0.02	30	0.01	30	0.00
Plant transfer factor for Co	7	-0.06	7	-0.03	7	0.06	7	0.01
Meat transfer factor for Co	18	0.03	18	0.02	11	0.04	11	0.01
Milk transfer factor for Co	25	-0.02	25	-0.01	37	0.01	37	0.00
Plant transfer factor for Cs	34	0.01	34	0.00	25	0.02	25	0.00
Meat transfer factor for Cs	19	0.03	19	0.02	33	0.01	33	0.00
Milk transfer factor for Cs	16	0.03	16	0.02	14	-0.03	14	-0.01
Plant transfer factor for Ni	1	0.78	1	0.64	1	0.96	1	0.74
Meat transfer factor for Ni	11	0.05	10	0.03	4	0.19	4	0.04
Milk transfer factor for Ni	2	0.67	2	0.47	2	0.91	2	0.49
Plant transfer factor for Sr	33	0.01	33	0.01	28	0.01	28	0.00
Meat transfer factor for Sr	9	-0.06	9	-0.03	16	0.03	16	0.01
Milk transfer factor for Sr	36	0.00	36	0.00	38	-0.01	38	0.00
Density of contaminated zone	28	0.02	28	0.01	29	-0.01	29	0.00
Density of Unsaturated zone 1	14	0.04	14	0.02	5	-0.07	5	-0.02
R-SQUARE		0.74		0.74		0.95		0.95

-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.