Appendix B
Preliminary Screening Levels

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Preliminary Screening Levels

- B-1: Boeing Proposed Human Health Risk Based Screening Levels
- B-2: Boeing Proposed Ecological Risk Based Screening Levels
- B-3: Responsible Party Proposed Groundwater Screening Reference Values
- B-4: Preliminary Chemical Lookup Table Values
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Appendix B-1

Boeing Proposed Human Health Risk Based Screening Levels

(Source: Appendix B of the Finalized Standardized Risk Assessment Methodology, Revision 2 Addendum, Santa Susana Field Laboratory, Ventura County, California dated October 2014)

Table 1

Summary of the Human Health Risk-Based Screening Levels for Chemicals in Soil at the SSFL

			Suburban Residential Soil RBSL ($RBSL_{so_res}$) [b]			SRAM-based Suburban Residential Garden RBSL ($RBSL_{so_res_g}$) [c]			USEPA default-based Suburban Residential Garden RBSL ($RBSL_{so_res_g}$) [c]			40-year Rural Residential Soil RBSL ($RBSL_{so_RR}$) [d]			30-year Rural Residential Soil RBSL ($RBSL_{so_RR}$) [d]			Recreational Soil RBSL ($RBSL_{so_rec}$) [b]		
Analyte	CAS #	Analyte Synonym [a]	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Recreator Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)
Inorganic Compounds																				
Aluminum	7429905	Aluminum, Total	-	7.53E+04	7.53E+04	-	-	- [e]	-	-	- [e]	-	7.53E+04	7.53E+04	-	7.53E+04	7.53E+04	-	3.54E+05	3.54E+05
Antimony	7440360	Antimony, Total	-	2.64E+01	2.64E+01	-	1.39E-01	1.39E-01	-	3.68E+00	3.68E+00	-	6.99E-01	6.99E-01	-	6.99E-01	6.99E-01	-	1.23E+02	1.23E+02
Arsenic	7440382	Arsenic, Total	6.58E-02	2.16E+01	6.58E-02	9.92E-05	1.04E-01	9.92E-05	2.91E-03	2.76E+00	2.91E-03	1.70E-04	3.07E-01	1.70E-04	2.28E-04	3.07E-01	2.28E-04	2.46E-01	1.01E+02	2.46E-01
Barium	7440393	Barium, Total	-	1.10E+04	1.10E+04	-	7.15E+01	7.15E+01	-	1.89E+03	1.89E+03	-	8.77E+01	8.77E+01	-	8.77E+01	8.77E+01	-	5.19E+04	5.19E+04
Beryllium	7440417	Beryllium, Total	1.48E+03	3.12E+01	3.12E+01	-	7.16E-01	7.16E-01	-	1.89E+01	1.89E+01	1.03E+03	3.95E+00	3.95E+00	1.38E+03	3.95E+00	3.95E+00	2.07E+04	1.46E+02	1.46E+02
Boron	7440428	Boron, Total	-	1.52E+04	1.52E+04	-	1.49E+01	1.49E+01	-	3.94E+02	3.94E+02	-	4.62E+01	4.62E+01	-	4.62E+01	4.62E+01	-	7.10E+04	7.10E+04
Cadmium	7440439	Cadmium, Total	8.44E+02	4.60E+00 [f]	4.60E+00	-	1.65E-03 [f]	1.65E-03	-	5.46E-02 [f]	5.46E-02	5.91E+02	2.34E-03 [f]	2.34E-03	7.88E+02	2.34E-03 [f]	2.34E-03	1.18E+04	9.06E+00 [f]	9.06E+00
Chromium	7440473	Chromium, Total	-	3.72E+04	3.72E+04	-	5.42E+02	5.42E+02	-	1.43E+04	1.43E+04	-	3.02E+03	3.02E+03	-	3.02E+03	3.02E+03	-	1.74E+05	1.74E+05
Cobalt	7440484	Cobalt, Total	3.94E+02	2.28E+01	2.28E+01	-	9.97E-02	9.97E-02	-	2.63E+00	2.63E+00	2.76E+02	2.17E-01	2.17E-01	3.68E+02	2.17E-01	2.17E-01	5.52E+03	1.06E+02	1.06E+02
Copper	7440508	Copper, Total	-	3.04E+03	3.04E+03	-	1.11E+01	1.11E+01	-	2.92E+02	2.92E+02	-	1.99E+01	1.99E+01	-	1.99E+01	1.99E+01	-	1.42E+04	1.42E+04
Cyanides	57125	Cyanide, Total;	-	4.56E+01	4.56E+01	-	2.78E-02	2.78E-02	-	7.34E-01	7.34E-01	-	1.81E-01	1.81E-01	-	1.81E-01	1.81E-01	-	2.13E+02	2.13E+02
Fluoride	16984488	-	-	3.04E+03	3.04E+03	-	-	-	-	-	-	-	3.04E+03	3.04E+03	-	3.04E+03	3.04E+03	-	1.42E+04	1.42E+04
Hexavalent chromium	18540299	Chromium, Hexavalent; Chromium VI	1.29E+00	2.34E+02	1.29E+00	1.94E-03	1.08E+00	1.94E-03	5.70E-02	2.84E+01	5.70E-02	7.54E-03	5.02E+00	7.54E-03	9.89E-03	5.02E+00	9.89E-03	6.27E+00	1.09E+03	6.27E+00
Lead	7439921	Lead, Total	-	8.00E+01 [g]	8.00E+01	- [g]	6.90E+00 [h]	6.90E+00	- [h]	7.20E+00 [i]	7.20E+00	- [i]	6.00E+00 [j]	6.00E+00	- [j]	6.00E+00 [j]	6.00E+00	- [j]	3.60E+02 [k]	3.60E+02 [k]
Lithium	7439932	Lithium, Total	-	1.52E+02	1.52E+02	-	7.06E-01	7.06E-01	-	1.87E+01	1.87E+01	-	8.95E-01	8.95E-01	-	8.95E-01	8.95E-01	-	7.10E+02	7.10E+02
Manganese	7439965	Manganese, Total	-	6.13E+03	6.13E+03	-	4.00E+01	4.00E+01	-	1.06E+03	1.06E+03	-	1.08E+02	1.08E+02	-	1.08E+02	1.08E+02	-	2.96E+04	2.96E+04
Mercury	7439976	Mercury, Total	-	1.68E+01	1.68E+01	-	5.04E-02	5.04E-02	-	1.33E+00	1.33E+00	-	2.44E-01	2.44E-01	-	2.44E-01	2.44E-01	-	7.82E+01	7.82E+01
Methyl Mercury	22967926	-	-	7.61E+00	7.61E+00	-	1.31E-03	1.31E-03	-	3.46E-02	3.46E-02	-	6.55E-03	6.55E-03	-	6.55E-03	6.55E-03	-	3.55E+01	3.55E+01
Molybdenum	7439987	Molybdenum, Total	-	3.80E+02	3.80E+02	-	1.38E+00	1.38E+00	-	3.65E+01	3.65E+01	-	4.36E+00	4.36E+00	-	4.36E+00	4.36E+00	-	1.78E+03	1.78E+03
Nickel	7440020	Nickel, Total	1.36E+04	9.08E+02	9.08E+02	-	6.07E+00	6.07E+00	-	1.60E+02	1.60E+02	9.55E+03	6.10E+00	6.10E+00	1.27E+04	6.10E+00	6.10E+00	1.91E+05	4.28E+03	4.28E+03
Selenium	7782492	Selenium, Total	-	3.80E+02	3.80E+02	-	1.31E+00	1.31E+00	-	3.45E+01	3.45E+01	-	6.88E-01	6.88E-01	-	6.88E-01	6.88E-01	-	1.78E+03	1.78E+03
Silver	7440224	Silver, Total	-	2.30E+02	2.30E+02	-	1.81E+00	1.81E+00	-	4.77E+01	4.77E+01	-	2.19E+00	2.19E+00	-	2.19E+00	2.19E+00	-	1.07E+03	1.07E+03
Strontium	7440246	Strontium, Total	-	4.56E+04	4.56E+04	-	1.21E+02	1.21E+02	-	3.20E+03	3.20E+03	-	2.48E+02	2.48E+02	-	2.48E+02	2.48E+02	-	2.13E+05	2.13E+05
Thallium	7440280	Thallium, Total	-	7.61E-01	7.61E-01	-	3.60E-03	3.60E-03	-	9.51E-02	9.51E-02	-	5.93E-04	5.93E-04	-	5.93E-04	5.93E-04	-	3.55E+00	3.55E+00
Tin	7440315	Tin, Total	-	4.56E+04	4.56E+04	-	1.01E+02	1.01E+02	-	2.66E+03	2.66E+03	-	1.69E+02	1.69E+02	-	1.69E+02	1.69E+02	-	2.13E+05	2.13E+05
Vanadium	7440622	Vanadium, Total	-	1.88E+02	1.88E+02	-	1.80E+00	1.80E+00	-	4.75E+01	4.75E+01	-	1.07E+01	1.07E+01	-	1.07E+01	1.07E+01	-	8.78E+02	8.78E+02
Zinc	7440666	Zinc, Total	-	2.28E+04	2.28E+04	-	5.38E+01	5.38E+01	-	1.42E+03	1.42E+03	-	3.16E+01	3.16E+01	-	3.16E+01	3.16E+01	-	1.07E+05	1.07E+05
Zirconium	7440677	Zirconium, Total	-	6.09E+00	6.09E+00	-	2.89E-02	2.89E-02	-	7.64E-01	7.64E-01	-	1.74E-01	1.74E-01	-	1.74E-01	1.74E-01	-	2.84E+01	2.84E+01
Energetic Constituents																				
1,2-Dinitrobenzene	528290	o-Dinitrobenzene	-	6.11E+00	6.11E+00	-	8.82E-03	8.82E-03	-	2.33E-01	2.33E-01	-	4.00E-02	4.00E-02	-	4.00E-02	4.00E-02	-	2.85E+01	2.85E+01
1,3-Dinitrobenzene	99650	m-Dinitrobenzene	-	6.11E+00	6.11E+00	-	7.18E-03	7.18E-03	-	1.90E-01	1.90E-01	-	4.33E-02	4.33E-02	-	4.33E-02	4.33E-02	-	2.85E+01	2.85E+01
2,4,6-Trinitrotoluene	118967	-	2.07E+01	3.59E+01	2.07E+01	7.26E-03	4.02E-02	7.26E-03	2.13E-01	1.06E+00	2.13E-01	1.20E-02	1.17E-01	1.20E-02	1.61E-02	1.17E-01	1.61E-02	7.65E+01	1.67E+02	7.65E+01
2-Amino-4,6-dinitrotoluene	35572782	-	-	1.54E+02	1.54E+02	-	2.04E-01	2.04E-01	-	5.40E+00	5.40E+00	-	9.94E-01	9.94E-01	-	9.94E-01	9.94E-01	-	7.18E+02	7.18E+02
HMX	2691410	-	-	3.85E+03	3.85E+03	-	7.26E-01	7.26E-01	-	1.92E+01	1.92E+01	-	4.77E+00	4.77E+00	-	4.77E+00	4.77E+00	-	1.79E+04	1.79E+04
Hydrazine	302012	-	1.73E-01	4.25E+04	1.73E-01	6.67E-07	-	6.67E-07	1.96E-05	-	1.96E-05	3.73E-06	4.25E+04	3.73E-06	4.89E-06	4.25E+04	4.89E-06	4.79E-01	5.96E+05	4.79E-01
RDX	121824	Hexahydro-1,3,5-trinitro-1,3,5-triazine	5.94E+00	2.25E+02	5.94E+00	8.67E-04	1.06E-01	8.67E-04	2.54E-02	2.79E+00	2.54E-02	4.16E-03	6.39E-01	4.16E-03	5.47E-03	6.39E-01	5.47E-03	2.45E+01	1.05E+03	2.45E+01
Perchlorate	14797730	-	-	5.33E+01	5.33E+01	-	1.58E-02	1.58E-02	-	4.18E-01	4.18E-01	-	1.18E-04	1.18E-04	-	1.18E-04	1.18E-04	-	2.49E+02	2.49E+02
Volatile Organic Compounds																				
1,1,1,2-Tetrachloroethane	630206	-	2.87E+00	7.01E+02	2.87E+00	2.36E-02	6.81E+00	2.36E-02	6.93E-01	1.80E+02	6.93E-01	2.48E-02	1.34E+01	2.48E-02	3.34E-02	1.34E+01	3.34E-02	3.29E+01	6.14E+03	3.29E+01
1,1,1-Trichloroethane	71556	-	-	5.74E+03	5.74E+03	-	3.50E+02	3.50E+02	-	9.25E+03	9.25E+03	-	6.58E+02	6.58E+02	-	6.58E+02	6.58E+02	-	7.49E+04	7.49E+04
1,1,2,2-Tetrachloroethane	79345	-	2.88E-01	3.95E+02	2.88E-01	1.64E-03	3.27E+00	1.64E-03	4.80E-02	8.62E+01	4.80E-02	7.99E-04	3.26E+00	7.99E-04	1.08E-03	3.26E+00	1.08E-03	3.29E+00	3.67E+03	3.29E+00
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	Freon 113	-	2.88E+04	2.88E+04	-	7.56E+03	7.56E+03	-	2.00E+05	2.00E+05	-	4.92E+03	4.92E+03	-	4.92E+03	4.92E+03	-	3.94E+05	3.94E+05
1,1,2-Trichloroethane	79005	-	5.33E-01	7.21E-01	5.33E-01	4.03E-03	4.29E-01	4.03E-03	1.18E-01	1.13E+01	1.18E-01	4.61E-03	4.06E-01	4.61E-03	6.21E-03	4.06E-01	6.21E-03	6.71E+00	1.01E+01	6.71E+00
1,1-Dichloroethane	75343	-	1.89E+00	8.16E+02	1.89E+00	4.63E-02	1.95E+01	4.63E-02	1.36E+00	5.15E+02	1.36E+00	3.55E-02	2.92E+01	3.55E-02	4.79E-02	2.92E+01	4.79E-02	2.57E+01	1.03E+04	2.57E+01
1,1-Dichloroethene	75354	-	-	5.58E+01	5.58E+01	-	6.64E+00	6.64E+00	-	1.75E+02	1.75E+02	-	5.68E+00	5.68E+00	-	5.68E+00	5.68E+00	-	7.59E+02	7.59E+02
1,1-Dimethylhydrazine	57147	Unsymetrical Dimethyl Hydrazine	-	7.80E+00	7.80E+00	-	2.48E-04	2.48E-04	-	6.54E-03	6.54E-03	-	1.58E-03	1.58E-03	-	1.58E-03	1.58E-03	-	3.65E+01	3.65E+01
1,2,3-Trichlorobenzene	87616	-	6.11E+01	3.90E+01	3.90E+01	2.40E-01	2.55E-01	2.40E-01	7.04E+00	6.74E+00	6.74E+00	6.06E-02	1.37E-01	6.06E-02	8.21E-02	1.37E-01	8.21E-02	5.21E+02	2.43E+02	2.43E+02
1,2,4-Trichlorobenzene	120821	-	3.09E+01	2.92E+01	2.92E+01	2.39E-01	3.18E+00	2.39E-01	7.01E+00	8.39E+01	7.01E+00	1.08E-02	3.13E-01	1.08E-02	1.47E-02	3.13E-01	1.47E-02	3.26E+02	3.81E+02	3.26E+02
1,2,4-Trimethylbenzene	95636	-	-	3.97E+01	3.97E+01	-	2.93E+00	2.93E+00	-	7.75E+01	7.75E+01	-	2.25E+00	2.25E+00	-	2.25E+00	2.25E+00	-	5.05E+02	5.05E+02
1,2-Dibromo-3-chloropropane	96128	1,2-Dibromo-3-CPA	9.78E-02	1.56E+01	9.78E-02	8.91E-05	4.61E-02	8.91E-05	2.61E-03	1.22E+00	2.61E-03	3.32E-05	3.59E-02	3.32E-05	4.50E-05	3.59E-02	4.50E-05	4.56E-01	7.30E+01	4.56E-01
1,2-Dibromoethane	106934	1,2-Dibromoethane	1.04E-01	5.43E+01	1.04E-01	8.60E-05	1.03E+00	8.60E-05	2.52E-03	2.72E+01	2.52E-03	5.84E-05	1.37E+00	5.84E-05	7.90E-05	1.37E+00	7.90E-05	6.96E-01	6.59E+02	6.96E-01
1,2-Dichlorobenzene	95501	o-Dichlorobenzene	-	1.70E+03	1.70E+03	-	2.50E+01	2.50E+01	-	6.59E+02	6.59E+02	-	1.05E+01	1.05E+01	-	1.05E+01	1.05E+01	-	1.61E+04	1.61E+04
1,2-Dichloroethane	107062	-	2.61E-01	1.51E+01	2.61E-01	4.07E-03	4.24E-01	4.07E-03	1.19E-01	1.12E+01	1.19E-01	5.17E-03	9.55E-01	5.17E-03	6.96E-03	9.55E-01	6.96E-03	3.53E+00	1.99E+02	3.53E+00
1,2-Dichloroethene	540590	1,2-Dichloroethenes	-	9.69E+01	9.69E+01	-	1.16E+00	1.16E+00	-	3.05E+01	3.05E+01	-	1.78E+00	1.78E+00	-	1.78E+00	1.78E+00	-	1.06E+03	1.06E+03
1,2-Dichloropropane	78875	-	4.39E-01	7.19E+00	4.39E-01	8.76E-03	1.05E+01	8.76E-03	2.57E-01	2.77E+02	2.57E-01	6.74E-03	4.98E+00	6.74E-03	9.10E-03	4.98E+00	9.10E-03	5.88E+00	1.00E+02	5.88E+00
1,3,5-Trimethylbenzene	108678	-	-	1.75E+02	1.75E+02	-	2.77E+00	2.77E+00	-	7.30E+01	7.30E+01	-	2.46E+00	2.46E+00	-	2.46E+00	2.46E+00	-	1.69E+03	1.69E+03
1,3-Dichlorobenzene	541731	m-Dichlorobenzene	-	9.15E+02	9.15E+02	-	8.57E+00	8.57E+00	-	2.26E+02	2.26E+02	-	8.68E+00	8.68E+00	-	8.68E+00	8.68E+00	-	7.20E+03	7.20E+03
1,4-Dichlorobenzene	106467	p-Dichlorobenzene	1.33E+00	2.53E+03	1.33E+00	1.40E-01	1.95E+01	1.40E-01	4.09E+00	5.14E+02	4.09E+00	6.05E-03	1.87E+00	6.05E-03	8.21E-03	1.87E+00	8.21E-03	1.82E+01	1.84E+04	1.82E+01
2-Chloroethylvinyl ether	110758	2-Chloroethyl vinyl	4.20E-03	-	4.20E-03	5.45E-05	-	5.45E-05	1.60E-03	-	1.60E-03	1.48E-04	-	1.48E-04	1.97E-04	-	1.97E-04	5.71E-02	-	5.71E-02
2-Hexanone	591786	Methyl butyl ketone	-	1.70E+02	1.70E+02	-	3.18E-01	3.18E-01	-	8.39E+00	8.39E+00	-	1.06E+00	1.06E+00	-	1.06E+00	1.06E+00	-	1.27E+03	1.27E+03
Acetone	67641	-	-	6.01E+04	6.01E+04	-	7.79E+00	7.79E+00	-	2.06E+02	2.06E+02	-	4.63E+01	4.63E+01	-	4.63E+01	4.63E+01	-	3.11E+05	3.11E+05
Benzene	71432	-	1.15E-01	3.61E+01	1.15E-01	3.60E-03	5.31E-01	3.60E-03	1.05E-01	1.40E+01	1.05E-01	4.06E-03	1.14E+00	4.06E-03	5.47E-03	1.14E+00	5.47E-03	1.56E+00	4.11E+02	1.56E+00
Bromobenzene	108861	-	-	2.36E+02	2.36E+02	-	1.87E+00	1.87E+00	-	4.94E+01	4.94E+01	-	3.24E+00	3.24E+00	-	3.24E+00	3.24E+00	-	1.89E+03	1.89E+03
Bromodichloromethane	75274	-	1.95E-01	1.85E+02	1.95E-01	2.47E-03	2.37E+00	2.47E-03	7.24E-02	6.26E+01	7.24E-02	2.05E-03	3.83E+00	2.05E-03	2.77E-03	3.83E+00	2.77E-03	2.54E+00	2.09E+03	2.54E+00
Bromoform	75252	-	6.22E+01	1.56E+03	6.22E+01	4.05E-02	3.29E+00	4.05E-02	1.19E+00	8.68E+01	1.19E+00	6.71E-02	9.51E+00	6.71E-02	9.00E-02	9.51E+00	9.00E-02	2.90E+02	7.30E+03	2.90E+02
Bromomethane	74839	-	-	5.16E+00	5.16E+00	-	7.19E-02	7.19E-02	-	1.90E+00	1.90E+00	-	2.83E-01	2.83E-01	-	2.83E-01	2.83E-01	-	6.61E+01	6.61E+01
Carbon disulfide	75150	-	-	5.42E+02	5.42E+02	-	1.12E+01	1.12E+01	-	2.97E+02	2.97E+02	-	7.58E+00	7.58E+00	-	7.58E+00	7.58E+00	-	6.66E+03	6.66E+03
Carbon tetrachloride	56235	-	7.10E-02	8.74E+01	7.10E-02	3.89E-03	8.63E-01	3.89E-03	1.14E-01	2.28E+01	1.14E-01	3.32E-03	1.50E+00	3.32E-03	4.47E-03	1.50E+00	4.47E-03	9.65E-01	7.85E+02	9.65E-01
Chlorobenzene	108907	Monochlorobenzene	-	1.35E+02	1.35E+02	-	4.34E+00	4.34E+00	-	1.15E+02	1.15E+02	-	4.30E+00	4.30E+00	-	4.30E+00	4.30E+00	-	1.62E+03	1.62E+03
Chloroform	67663	Trichloromethane	7.33E-01	2.98E+02	7.33E-01	1.01E-02	1.16E+00	1.01E-02	2.96E-01	3.05E+01	2.96E-01	4.36E-03	1.04E+00	4.36E-03	5.90E-03	1.04E+00	5.90E-03	9.62E+00	2.37E+03	9.62E+00
Chloromethane	74873	Methyl chloride	-	4.51E+01	4.51E+01	-	5.18E-02	5.18E-02	-	1.37E+00	1.37E+00	-	2.19E-01	2.19E-01	-	2.19E-01	2.19E-01	-	3.46E+02	3.46E+02
cis-1,2-Dichloroethene	156592	cis-1,2-	-	9.22E+00	9.22E+00	-	2.09E-01	2.09E-01	-	5.51E+00	5.51E+00	-	2.20E-01	2.20E-01	-	2.20E-01	2.20E-01	-	1.15E+02	1.15E+02
Cumene	98828	Isopropylbenzene	-	1.51E+03	1.51E+03	-	2.96E+01	2.96E+01	-	7.81E+02	7.81E+02	-	6.31E+01	6.31E+01	-	6.31E+01	6.31E+01	-	1.53E+04	1.53E+04
Dibromochloromethane	124481	-	7.28E+00	1.56E+03	7.28E+00	3.92E-03	2.73E+00	3.92E-03	1.15E-01	7.20E+01	1.15E-01	2.37E-03	3.32E+00	2.37E-03	3.20E-03	3.32E+00	3.20E-03	3.40E+01	7.30E+03	3.40E+01

Table 1

Summary of the Human Health Risk-Based Screening Levels for Chemicals in Soil at the SSFL

			Suburban Residential Soil RBSL ($RBSL_{so_res}$) [b]			SRAM-based Suburban Residential Garden RBSL ($RBSL_{so_res_g}$) [c]			USEPA default-based Suburban Residential Garden RBSL ($RBSL_{so_res_g}$) [c]			40-year Rural Residential Soil RBSL ($RBSL_{so_RR}$) [d]			30-year Rural Residential Soil RBSL ($RBSL_{so_RR}$) [d]			Recreational Soil RBSL ($RBSL_{so_rec}$) [b]		
Analyte	CAS #	Analyte Synonym [a]	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Recreator Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)
Dibromomethane	74953	-	-	2.23E+01	2.23E+01	-	8.91E-01	8.91E-01	-	2.35E+01	2.35E+01	-	2.60E+00	2.60E+00	-	2.60E+00	2.60E+00	-	2.95E+02	2.95E+02
Dichlorodifluoromethane	75718	Freon 12	-	6.62E+01	6.62E+01	-	2.73E+01	2.73E+01	-	7.20E+02	7.20E+02	-	3.89E+01	3.89E+01	-	3.89E+01	3.89E+01	-	9.20E+02	9.20E+02
Ethylbenzene	100414	-	2.31E+00	2.98E+03	2.31E+00	6.17E-02	2.51E+01	6.17E-02	1.81E+00	6.62E+02	1.81E+00	1.38E-02	1.20E+01	1.38E-02	1.86E-02	1.20E+01	1.86E-02	3.01E+01	2.37E+04	3.01E+01
Methyl ethyl ketone	78933	2-Butanone; 2-Butanone (MEK)	-	2.33E+04	2.33E+04	-	1.03E+01	1.03E+01	-	2.71E+02	2.71E+02	-	5.12E+01	5.12E+01	-	5.12E+01	5.12E+01	-	1.64E+05	1.64E+05
Methyl isobutyl ketone (MIBK)	108101	MIBK; 4-Methyl-2-	-	4.96E+03	4.96E+03	-	4.70E+00	4.70E+00	-	1.24E+02	1.24E+02	-	1.66E+01	1.66E+01	-	1.66E+01	1.66E+01	-	2.69E+04	2.69E+04
Methylene chloride	75092	Dichloromethane	2.97E+00	2.90E+02	2.97E+00	1.06E-02	3.30E-01	1.06E-02	3.12E-01	8.71E+00	3.12E-01	3.83E-03	2.50E-01	3.83E-03	5.19E-03	2.50E-01	5.19E-03	3.71E+01	1.82E+03	3.71E+01
Monomethylhydrazine	60344	Monomethyl Hydrazine	1.24E-03	7.80E+01	1.24E-03	1.47E-08	2.98E-03	1.47E-08	4.30E-07	7.87E-02	4.30E-07	7.64E-08	1.89E-02	7.64E-08	1.00E-07	1.89E-02	1.00E-07	5.81E-03	3.65E+02	5.81E-03
m-Xylene & p-Xylene	136777612	meta- and para-Xylenes; m, p-Xylene	-	4.28E+02	4.28E+02	-	4.96E+01	4.96E+01	-	1.31E+03	1.31E+03	-	1.11E+02	1.11E+02	-	1.11E+02	1.11E+02	-	5.69E+03	5.69E+03
n-Butylbenzene	104518	-	-	8.45E+02	8.45E+02	-	1.67E+01	1.67E+01	-	4.40E+02	4.40E+02	-	1.08E+01	1.08E+01	-	1.08E+01	1.08E+01	-	8.26E+03	8.26E+03
n-Propylbenzene	103651	-	-	3.16E+03	3.16E+03	-	2.98E+01	2.98E+01	-	7.86E+02	7.86E+02	-	2.87E+01	2.87E+01	-	2.87E+01	2.87E+01	-	2.44E+04	2.44E+04
o-Chlorotoluene	95498	2-Chlorotoluene	-	3.37E+02	3.37E+02	-	5.53E+00	5.53E+00	-	1.46E+02	1.46E+02	-	5.26E+00	5.26E+00	-	5.26E+00	5.26E+00	-	3.30E+03	3.30E+03
o-Xylene	95476	-	-	2.86E+02	2.86E+02	-	4.96E+01	4.96E+01	-	1.31E+03	1.31E+03	-	6.06E+01	6.06E+01	-	6.06E+01	6.06E+01	-	3.87E+03	3.87E+03
p-Chlorotoluene	106434	4-Chlorotoluene	-	3.10E+02	3.10E+02	-	5.37E+00	5.37E+00	-	1.42E+02	1.42E+02	-	5.70E+00	5.70E+00	-	5.70E+00	5.70E+00	-	3.10E+03	3.10E+03
p-Cymene	99876	p-Isopropyltoluene	-	1.94E+03	1.94E+03	-	3.22E+01	3.22E+01	-	8.50E+02	8.50E+02	-	1.07E+01	1.07E+01	-	1.07E+01	1.07E+01	-	1.82E+04	1.82E+04
p-Nitroaniline	100016	4-Nitroaniline	3.42E+01	3.13E+02	3.42E+01	8.72E-03	2.58E-01	8.72E-03	2.56E-01	6.80E+00	2.56E-01	3.24E-02	1.33E+00	3.24E-02	4.29E-02	1.33E+00	4.29E-02	1.60E+02	1.46E+03	1.60E+02
sec-Butylbenzene	135988	-	-	1.73E+03	1.73E+03	-	3.39E+01	3.39E+01	-	8.96E+02	8.96E+02	-	1.52E+01	1.52E+01	-	1.52E+01	1.52E+01	-	1.68E+04	1.68E+04
Styrene	100425	Vinylbenzene	-	1.14E+04	1.14E+04	-	4.59E+01	4.59E+01	-	1.21E+03	1.21E+03	-	2.68E+02	2.68E+02	-	2.68E+02	2.68E+02	-	6.49E+04	6.49E+04
tert-Butylbenzene	98066	Dibenzo[b,e][1,4]dioxin, octachloro-	-	1.73E+03	1.73E+03	-	3.22E+01	3.22E+01	-	8.51E+02	8.51E+02	-	1.26E+01	1.26E+01	-	1.26E+01	1.26E+01	-	1.68E+04	1.68E+04
Tetrachloroethene	127184	-	4.16E-01	5.20E+01	4.16E-01	1.38E-03	1.65E+00	1.38E-03	4.04E-02	4.35E+01	4.04E-02	1.53E-04	3.96E-01	1.53E-04	2.07E-04	3.96E-01	2.07E-04	3.52E+00	5.96E+02	3.52E+00
Tetralin	119642	-	8.29E+00	2.78E+02	8.29E+00	-	5.31E+00	5.31E+00	-	1.40E+02	1.40E+02	5.80E+00	2.73E+01	5.80E+00	7.73E+00	2.73E+01	7.73E+00	1.16E+02	2.87E+03	1.16E+02
Toluene	108883	Toluol	-	3.74E+03	3.74E+03	-	1.63E+01	1.63E+01	-	4.31E+02	4.31E+02	-	2.78E+01	2.78E+01	-	2.78E+01	2.78E+01	-	2.39E+04	2.39E+04
trans-1,2-Dichloroethene	156605	-	-	8.53E+01	8.53E+01	-	2.57E+00	2.57E+00	-	6.78E+01	6.78E+01	-	2.57E+00	2.57E+00	-	2.57E+00	2.57E+00	-	1.08E+03	1.08E+03
Trichloroethene	79016	Trichloroethylene	7.97E-01	2.99E+00	7.97E-01	9.81E-03	8.34E-02	9.81E-03	2.88E-01	2.20E+00	2.88E-01	5.52E-03	9.33E-02	5.52E-03	7.46E-03	9.33E-02	7.46E-03	1.01E+01	3.63E+01	1.01E+01
Trichlorofluoromethane	75694	-	-	5.30E+02	5.30E+02	-	5.40E+01	5.40E+01	-	1.43E+03	1.43E+03	-	3.44E+01	3.44E+01	-	3.44E+01	3.44E+01	-	7.10E+03	7.10E+03
Vinyl chloride	75014	-	2.04E-02	5.05E+01	2.04E-02	8.23E-04	2.46E-01	8.23E-04	2.41E-02	6.51E+00	2.41E-02	7.70E-04	4.63E-01	7.70E-04	1.04E-03	4.63E-01	1.04E-03	2.82E-01	4.94E+02	2.82E-01
Xylenes, Total	1330207	Xylene (Total) Isomers	-	4.28E+02	4.28E+02	-	4.96E+01	4.96E+01	-	1.31E+03	1.31E+03	-	1.11E+02	1.11E+02	-	1.11E+02	1.11E+02	-	5.69E+03	5.69E+03
Semi-Volatile Organic Compounds																				
1,4-Dioxane	123911	-	1.93E+01	1.83E+03	1.93E+01	8.37E-04	2.51E-01	8.37E-04	2.46E-02	6.62E+00	2.46E-02	4.45E-03	1.61E+00	4.45E-03	5.83E-03	1.61E+00	5.83E-03	5.32E+01	8.55E+03	5.32E+01
2,4,5-Trichlorophenol	95954	-	-	6.11E+03	6.11E+03	-	3.00E+01	3.00E+01	-	7.92E+02	7.92E+02	-	2.29E+01	2.29E+01	-	2.29E+01	2.29E+01	-	2.85E+04	2.85E+04
2,4,6-Trichlorophenol	88062	-	7.43E+00	6.11E+01	7.43E+00	1.15E-02	2.98E-01	1.15E-02	3.38E-01	7.86E+00	3.38E-01	1.46E-03	8.17E-02	1.46E-03	1.97E-03	8.17E-02	1.97E-03	2.05E+01	2.85E+02	2.05E+01
2,4-Dimethylphenol	105679	-	-	1.22E+03	1.22E+03	-	3.05E+00	3.05E+00	-	8.05E+01	8.05E+01	-	1.80E+01	1.80E+01	-	1.80E+01	1.80E+01	-	5.70E+03	5.70E+03
3,5-Dimethylphenol	108689	-	-	4.40E+02	4.40E+02	-	1.37E+00	1.37E+00	-	3.61E+01	3.61E+01	-	4.82E+00	4.82E+00	-	4.82E+00	4.82E+00	-	2.05E+03	2.05E+03
Benzoic acid	65850	-	-	2.44E+05	2.44E+05	-	4.21E+02	4.21E+02	-	1.11E+04	1.11E+04	-	8.18E+02	8.18E+02	-	8.18E+02	8.18E+02	-	1.14E+06	1.14E+06
Benzyl alcohol	100516	-	-	6.11E+03	6.11E+03	-	4.63E+00	4.63E+00	-	1.22E+02	1.22E+02	-	2.49E+01	2.49E+01	-	2.49E+01	2.49E+01	-	2.85E+04	2.85E+04
bis(2-Ethylhexyl) phthalate	117817	bis(2-	1.73E+02	1.22E+03	1.73E+02	3.26E-01	7.23E+00	3.26E-01	9.56E+00	1.91E+02	9.56E+00	2.83E-02	7.08E-01	2.83E-02	3.70E-02	7.08E-01	3.70E-02	4.79E+02	5.70E+03	4.79E+02
Butyl benzyl phthalate	85687	-	2.74E+02	1.22E+04	2.74E+02	4.89E-01	6.87E+01	4.89E-01	1.43E+01	1.81E+03	1.43E+01	1.99E+00	3.49E+02	1.99E+00	2.62E+00	3.49E+02	2.62E+00	7.56E+02	5.70E+04	7.56E+02
Carbazole	86748	-	2.60E+01	-	2.60E+01	4.06E-02	-	4.06E-02	1.19E+00	-	1.19E+00	8.98E-02	-	8.98E-02	1.20E-01	-	1.20E-01	7.19E+01	-	7.19E+01
Dibenzofuran	132649	-	-	5.47E+01	5.47E+01	-	3.23E-01	3.23E-01	-	8.52E+00	8.52E+00	-	2.93E-01	2.93E-01	-	2.93E-01	2.93E-01	-	2.74E+02	2.74E+02
Diethyl phthalate	84662	-	-	4.89E+04	4.89E+04	-	1.33E+02	1.33E+02	-	3.52E+03	3.52E+03	-	2.08E+02	2.08E+02	-	2.08E+02	2.08E+02	-	2.28E+05	2.28E+05
Dimethyl phthalate	131113	-	-	4.89E+04	4.89E+04	-	6.44E+01	6.44E+01	-	1.70E+03	1.70E+03	-	2.42E+02	2.42E+02	-	2.42E+02	2.42E+02	-	2.28E+05	2.28E+05
Di-n-butyl phthalate	84742	Di-n-butylphthalate	-	6.11E+03	6.11E+03	-	3.37E+01	3.37E+01	-	8.90E+02	8.90E+02	-	3.20E+01	3.20E+01	-	3.20E+01	3.20E+01	-	2.85E+04	2.85E+04
Di-n-octyl phthalate	117840	Di-n-octyl-phthalate	-	6.11E+02	6.11E+02	-	3.61E+00	3.61E+00	-	9.54E+01	9.54E+01	-	1.14E-01	1.14E-01	-	1.14E-01	1.14E-01	-	2.85E+03	2.85E+03
Formaldehyde	50000	-	5.91E+05	1.22E+04	1.22E+04	-	3.70E+00	3.70E+00	-	9.78E+01	9.78E+01	4.14E+05	1.78E+01	1.78E+01	5.52E+05	1.78E+01	1.78E+01	8.27E+06	5.70E+04	5.70E+04
Hexachlorobutadiene	87683	-	6.67E+00	6.11E+01	6.67E+00	1.20E-02	3.44E-01	1.20E-02	3.51E-01	9.10E+00	3.51E-01	2.32E-02	1.08E+00	2.32E-02	3.10E-02	1.08E+00	3.10E-02	1.84E+01	2.85E+02	1.84E+01
m-Cresol	108394	3-Methylphenol	-	3.06E+03	3.06E+03	-	5.72E+00	5.72E+00	-	1.51E+02	1.51E+02	-	2.02E+01	2.02E+01	-	2.02E+01	2.02E+01	-	1.43E+04	1.43E+04
N-Nitrosodimethylamine	62759	Nitrosodimethylamine	3.25E-02	4.89E-01	3.25E-02	9.49E-07	4.49E-05	9.49E-07	2.78E-05	1.19E-03	2.78E-05	4.80E-06	2.80E-04	4.80E-06	6.31E-06	2.80E-04	6.31E-06	8.98E-02	2.28E+00	8.98E-02
N-Nitrosodiphenylamine	86306	-	5.78E+01	-	5.78E+01	7.48E-02	-	7.48E-02	2.19E+00	-	2.19E+00	3.50E-01	-	3.50E-01	4.59E-01	-	4.59E-01	1.60E+02	-	1.60E+02
o-Cresol	95487	2-Methylphenol	-	3.06E+03	3.06E+03	-	5.67E+00	5.67E+00	-	1.50E+02	1.50E+02	-	1.85E+01	1.85E+01	-	1.85E+01	1.85E+01	-	1.43E+04	1.43E+04
p-Chloro-m-cresol	59507	4-Chloro-3-	-	6.11E+03	6.11E+03	-	2.46E+01	2.46E+01	-	6.48E+02	6.48E+02	-	9.94E+01	9.94E+01	-	9.94E+01	9.94E+01	-	2.85E+04	2.85E+04
p-Cresol	106445	4-Methylphenol	-	6.11E+03	6.11E+03	-	1.12E+01	1.12E+01	-	2.97E+02	2.97E+02	-	6.72E+01	6.72E+01	-	6.72E+01	6.72E+01	-	2.85E+04	2.85E+04
Pentachlorophenol	87865	PCP	2.12E+01	2.30E+02	2.12E+01	5.27E-02	1.75E+00	5.27E-02	1.55E+00	4.63E+01	1.55E+00	2.99E-03	2.18E-01	2.99E-03	4.06E-03	2.18E-01	4.06E-03	4.38E+01	1.07E+03	4.38E+01
Phenol	108952	Total Phenols	-	1.83E+04	1.83E+04	-	2.07E+01	2.07E+01	-	5.48E+02	5.48E+02	-	1.12E+02	1.12E+02	-	1.12E+02	1.12E+02	-	8.55E+04	8.55E+04
Polynuclear Aromatic Hydrocarbons																				
1-Methyl naphthalene	90120	1-Methylnaphthalene	7.29E+00	2.85E+03	7.29E+00	2.89E-02	2.17E+01	2.89E-02	8.47E-01	5.72E+02	8.47E-01	5.81E-02	7.14E+01	5.81E-02	7.78E-02	7.14E+01	7.78E-02	3.22E+01	1.61E+04	3.22E+01
2-Methylnaphthalene	91576	Naphthalene, 2-methyl-	-	1.62E+02	1.62E+02	-	1.24E+00	1.24E+00	-	3.26E+01	3.26E+01	-	3.47E+00	3.47E+00	-	3.47E+00	3.47E+00	-	9.18E+02	9.18E+02
Acenaphthene	83329	-	-	3.23E+03	3.23E+03	-	1.87E+01	1.87E+01	-	4.95E+02	4.95E+02	-	9.19E+01	9.19E+01	-	9.19E+01	9.19E+01	-	1.53E+04	1.53E+04
Acenaphthylene	208968	-	-	2.98E+03	2.98E+03	-	1.88E+01	1.88E+01	-	4.97E+02	4.97E+02	-	3.77E+01	3.77E+01	-	3.77E+01	3.77E+01	-	1.49E+04	1.49E+04
Anthracene	120127	-	-	1.64E+04	1.64E+04	-	1.01E+02	1.01E+02	-	2.66E+03	2.66E+03	-	5.07E+02	5.07E+02	-	5.07E+02	5.07E+02	-	7.70E+04	7.70E+04
Benzo(a)anthracene	56553	Benz[a]anthracene	3.87E-01	-	3.87E-01	8.05E-04	-	8.05E-04	2.36E-02	-	2.36E-02	2.03E-03	-	2.03E-03	2.67E-03	-	2.67E-03	9.39E-01	-	9.39E-01
Benzo(a)pyrene	50328	Benzo (a) pyrene	3.87E-02	-	3.87E-02	8.09E-05	-	8.09E-05	2.37E-03	-	2.37E-03	1.32E-04	-	1.32E-04	1.73E-04	-	1.73E-04	9.39E-02	-	9.39E-02
Benzo(b)fluoranthene	205992	Benz[e]acephenanthryl	3.87E-01	-	3.87E-01	8.05E-04	-	8.05E-04	2.36E-02	-	2.36E-02	1.95E-03	-	1.95E-03	2.56E-03	-	2.56E-03	9.39E-01	-	9.39E-01
Benzo(e)pyrene	192972	-	-	1.65E+03	1.65E+03	-	1.08E+01	1.08E+01	-	2.84E+02	2.84E+02	-	2.09E+01	2.09E+01	-	2.09E+01	2.09E+01	-	7.71E+03	7.71E+03
Benzo(ghi)perylene	191242	Benzo (g,h,i) perylene	-	1.65E+03	1.65E+03	-	1.08E+01	1.08E+01	-	2.85E+02	2.85E+02	-	8.61E+00	8.61E+00	-	8.61E+00	8.61E+00	-	7.71E+03	7.71E+03
Benzo(k)fluoranthene	207089	Benzo[k]fluoranthene	3.87E-01	-	3.87E-01	8.09E-04	-	8.09E-04	2.37E-02	-	2.37E-02	1.36E-03	-	1.36E-03	1.78E-03	-	1.78E-03	9.39E-01	-	9.39E-01
Chrysene	218019	-	3.87E+00	-	3.87E+00	8.06E-03	-	8.06E-03	2.36E-01	-	2.36E-01	1.93E-02	-	1.93E-02	2.53E-02	-	2.53E-02	9.39E+00	-	9.39E+00
Dibenzo(a,h)anthracene	53703	Dibenz (a,h)	1.13E-01	-	1.13E-01	2.38E-04	-	2.38E-04	6.98E-03	-	6.98E-03	1.30E-04	-	1.30E-04	1.70E-04	-	1.70E-04	2.75E-01	-	2.75E-01
Fluoranthene	206440	-	-	2.20E+03	2.20E+03	-	1.40E+01	1.40E+01	-	3.71E+02	3.71E+02	-	6.29E+01	6.29E+01	-	6.29E+01	6.29E+01	-	1.03E+04	1.03E+04
Fluorene	86737	-	-	2.18E+03	2.18E+03	-	1.30E+01	1.30E+01	-	3.44E+02	3.44E+02	-	6.52E+01	6.52E+01	-	6.52E+01	6.52E+01	-	1.02E+04	1.02E+04
Indeno(1,2,3-cd)pyrene	193395	Indeno (1,2,3-cd)	3.87E-01	-	3.87E-01	8.13E-04	-	8.13E-04	2.38E-02	-	2.38E-02	4.98E-04	-	4.98E-04	6.50E-04	-	6.50E-04	9.39E-01	-	9.39E-01
Naphthalene	91203	-	1.46E+01	6.81E+02	1.46E+01	-	5.31E+00	5.31E+00	-	1.40E+02	1.40E+02	1.02E+01	2.90E+01	1.02E+01	1.36E+01	2.90E+01	1.36E+01	2.04E+02	4.26E+03	2.04E+02
Perylene	198550	-	-	1.65E+03	1.65E+03	-	1.08E+01	1.08E+01	-	2.84E+02	2.84E+02	-	1.70E+01	1.70E+01	-	1.70E+01	1.70E+01	-	7.71E+03	7.71E+03
Phenanthrene	85018	-	-	1.64E+04	1.64E+04	-	1.01E+02	1.01E+02	-	2.66E+03	2.66E+03	-	4.99E+02	4.99E+02	-	4.99E+02	4.99E+02	-	7.70E+04	7.70E+04
Pyrene	129000	-	-	1.65E+03	1.65E+03	-	1.04E+01	1.04E+01	-	2.74E+02	2.74E+02	-	5.03E+01	5.03E+01	-	5.03E+01	5.03E+01	-	7.71E+03	7.71E+03
Pesticides																				
4,4'-DDD	72548	p,p'-DDD	2.46E+00	-	2.46E+00	4.04E-03	-	4.04E-03	1.18E-01	-	1.18E-01	2.67E-03	-	2.67E-03	3.58E-03	-	3.58E-03	8.26E+00	-	8.26E+00
4,4'-DDE	72559	p,p'-DDE	1.74E+00	-	1.74E+00	2.87E-03	-	2.87E-03	8.40E-02	-	8.40E-02	2.31E-03	-	2.31E-03	3.03E-03	-	3.03E-03	5.83E+00	-	5.83E+00

Table 1

Summary of the Human Health Risk-Based Screening Levels for Chemicals in Soil at the SSFL

			Suburban Residential Soil RBSL ($RBSL_{so_res}$) [b]			SRAM-based Suburban Residential Garden RBSL ($RBSL_{so_res_g}$) [c]			USEPA default-based Suburban Residential Garden RBSL ($RBSL_{so_res_g}$) [c]			40-year Rural Residential Soil RBSL ($RBSL_{so_RR}$) [d]			30-year Rural Residential Soil RBSL ($RBSL_{so_RR}$) [d]			Recreational Soil RBSL ($RBSL_{so_rec}$) [b]		
Analyte	CAS #	Analyte Synonym [a]	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Resident Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)	Composite Recreator Cancer (10^{-6}) (mg/kg)	Child Noncancer (HQ=1) (mg/kg)	Lowest (mg/kg)
4,4'-DDT	50293	p,p'-DDT	1.74E+00	3.43E+01	1.74E+00	2.87E-03	1.80E-01	2.87E-03	8.42E-02	4.76E+00	8.42E-02	9.48E-04	7.34E-02	9.48E-04	1.24E-03	7.34E-02	1.24E-03	5.83E+00	1.60E+02	5.83E+00
Aldrin	309002	-	3.48E-02	2.06E+00	3.48E-02	5.73E-05	1.08E-02	5.73E-05	1.68E-03	2.85E-01	1.68E-03	4.94E-05	1.08E-02	4.94E-05	6.46E-05	1.08E-02	6.46E-05	1.17E-01	9.61E+00	1.17E-01
alpha-BHC	319846	a-Benzene	2.19E-01	5.49E+02	2.19E-01	3.06E-04	2.44E+00	3.06E-04	8.97E-03	6.45E+01	8.97E-03	2.72E-05	4.74E-01	2.72E-05	3.69E-05	4.74E-01	3.69E-05	7.34E-01	2.56E+03	7.34E-01
beta-BHC	319857	b-Benzene	3.94E-01	-	3.94E-01	5.48E-04	-	5.48E-04	1.61E-02	-	1.61E-02	4.90E-05	-	4.90E-05	6.65E-05	-	6.65E-05	1.32E+00	-	1.32E+00
delta-BHC	319868	d-Benzene	3.28E-01	2.06E+01	3.28E-01	4.87E-04	9.71E-02	4.87E-04	1.43E-02	2.56E+00	1.43E-02	5.08E-05	2.21E-02	5.08E-05	6.90E-05	2.21E-02	6.90E-05	1.10E+00	9.61E+01	1.10E+00
Chlordane (Technical)	12789036	-	1.69E+00	3.43E+01	1.69E+00	2.78E-03	1.80E-01	2.78E-03	8.14E-02	4.74E+00	8.14E-02	2.29E-06	3.28E-04	2.29E-06	3.11E-06	3.28E-04	3.11E-06	5.66E+00	1.60E+02	5.66E+00
Dieldrin	60571	-	3.69E-02	3.43E+00	3.69E-02	5.99E-05	1.77E-02	5.99E-05	1.76E-03	4.67E-01	1.76E-03	9.33E-07	6.10E-04	9.33E-07	1.27E-06	6.10E-04	1.27E-06	1.24E-01	1.60E+01	1.24E-01
Endosulfan I	959988	-	-	4.12E+02	4.12E+02	-	1.84E+00	1.84E+00	-	4.87E+01	4.87E+01	-	5.92E+00	5.92E+00	-	5.92E+00	5.92E+00	-	1.92E+03	1.92E+03
Endosulfan II	33213659	-	-	4.12E+02	4.12E+02	-	1.84E+00	1.84E+00	-	4.87E+01	4.87E+01	-	5.92E+00	5.92E+00	-	5.92E+00	5.92E+00	-	1.92E+03	1.92E+03
Endosulfan sulfate	1031078	-	-	4.12E+02	4.12E+02	-	1.77E+00	1.77E+00	-	4.68E+01	4.68E+01	-	7.28E+00	7.28E+00	-	7.28E+00	7.28E+00	-	1.92E+03	1.92E+03
Endrin	72208	-	-	2.06E+01	2.06E+01	-	1.05E-01	1.05E-01	-	2.79E+00	2.79E+00	-	2.14E-03	2.14E-03	-	2.14E-03	2.14E-03	-	9.61E+01	9.61E+01
Endrin aldehyde	7421934	-	-	2.06E+01	2.06E+01	-	1.03E-01	1.03E-01	-	2.73E+00	2.73E+00	-	5.10E-03	5.10E-03	-	5.10E-03	5.10E-03	-	9.61E+01	9.61E+01
Endrin ketone	53494705	-	-	2.06E+01	2.06E+01	-	1.05E-01	1.05E-01	-	2.76E+00	2.76E+00	-	1.07E-02	1.07E-02	-	1.07E-02	1.07E-02	-	9.61E+01	9.61E+01
gamma-BHC	58899	Lindane	5.37E-01	2.06E+01	5.37E-01	7.38E-04	9.00E-02	7.38E-04	2.16E-02	2.38E+00	2.16E-02	3.93E-04	9.73E-02	3.93E-04	5.31E-04	9.73E-02	5.31E-04	1.80E+00	9.61E+01	1.80E+00
Heptachlor	76448	-	1.44E-01	3.43E+01	1.44E-01	2.37E-04	1.79E-01	2.37E-04	6.94E-03	4.73E+00	6.94E-03	3.66E-04	3.39E-01	3.66E-04	4.81E-04	3.39E-01	4.81E-04	4.84E-01	1.60E+02	4.84E-01
Heptachlor epoxide	1024573	-	1.07E-01	8.92E-01	1.07E-01	1.71E-04	4.53E-03	1.71E-04	5.03E-03	1.20E-01	5.03E-03	2.70E-04	1.20E-02	2.70E-04	3.61E-04	1.20E-02	3.61E-04	3.60E-01	4.16E+00	3.60E-01
MCPA	94746	-	-	3.43E+01	3.43E+01	-	1.31E-01	1.31E-01	-	3.45E+00	3.45E+00	-	2.57E-01	2.57E-01	-	2.57E-01	2.57E-01	-	1.60E+02	1.60E+02
Mirex	2385855	Mirex (DeChlorane)	3.28E-02	1.37E+01	3.28E-02	5.42E-05	7.21E-02	5.42E-05	1.59E-03	1.90E+00	1.59E-03	7.89E-07	2.25E-03	7.89E-07	1.07E-06	2.25E-03	1.07E-06	1.10E-01	6.40E+01	1.10E-01
p,p'-Methoxychlor	72435	Methoxychlor	-	3.43E+02	3.43E+02	-	1.75E+00	1.75E+00	-	4.62E+01	4.62E+01	-	7.19E-01	7.19E-01	-	7.19E-01	7.19E-01	-	1.60E+03	1.60E+03
Toxaphene	8001352	-	4.93E-01	-	4.93E-01	8.05E-04	-	8.05E-04	2.36E-02	-	2.36E-02	1.48E-05	-	1.48E-05	2.01E-05	-	2.01E-05	1.65E+00	-	1.65E+00
Herbicides																				
2,4,5-T	93765	2,4,5-	-	6.86E+02	6.86E+02	-	2.67E+00	2.67E+00	-	7.04E+01	7.04E+01	-	8.88E+00	8.88E+00	-	8.88E+00	8.88E+00	-	3.20E+03	3.20E+03
2,4,5-TP (Silvex)	93721	-	-	5.49E+02	5.49E+02	-	2.44E+00	2.44E+00	-	6.45E+01	6.45E+01	-	8.97E+00	8.97E+00	-	8.97E+00	8.97E+00	-	2.56E+03	2.56E+03
2,4-Dichlorophenoxyacetic Acid (2,4-D)	94757	-	-	6.86E+02	6.86E+02	-	2.13E+00	2.13E+00	-	5.63E+01	5.63E+01	-	4.82E+00	4.82E+00	-	4.82E+00	4.82E+00	-	3.20E+03	3.20E+03
2,4-Dichlorophenoxybutyric acid	94826	2,4-DB	-	5.49E+02	5.49E+02	-	2.29E+00	2.29E+00	-	6.04E+01	6.04E+01	-	7.09E+00	7.09E+00	-	7.09E+00	7.09E+00	-	2.56E+03	2.56E+03
Dalapon	75990	-	-	2.06E+03	2.06E+03	-	2.62E+00	2.62E+00	-	6.92E+01	6.92E+01	-	3.46E+00	3.46E+00	-	3.46E+00	3.46E+00	-	9.61E+03	9.61E+03
Dicamba	1918009	-	-	2.06E+03	2.06E+03	-	4.26E+00	4.26E+00	-	1.13E+02	1.13E+02	-	1.23E+01	1.23E+01	-	1.23E+01	1.23E+01	-	9.61E+03	9.61E+03
2,4-DP (Dichlorprop)	120365	-	-	6.86E+02	6.86E+02	-	2.77E+00	2.77E+00	-	7.33E+01	7.33E+01	-	6.49E+00	6.49E+00	-	6.49E+00	6.49E+00	-	3.20E+03	3.20E+03
Dinoseb	88857	-	-	6.86E+01	6.86E+01	-	2.88E-01	2.88E-01	-	7.61E+00	7.61E+00	-	1.14E+00	1.14E+00	-	1.14E+00	1.14E+00	-	3.20E+02	3.20E+02
MCPP	93652	-	-	6.86E+01	6.86E+01	-	2.49E-01	2.49E-01	-	6.57E+00	6.57E+00	-	6.25E-01	6.25E-01	-	6.25E-01	6.25E-01	-	3.20E+02	3.20E+02
Terphenyls																				
m-Terphenyl	92068	-	6.50E+01	2.90E+04	6.50E+01	1.07E-01	1.58E+02	1.07E-01	3.13E+00	4.17E+03	3.13E+00	7.91E-02	2.29E+02	7.91E-02	1.07E-01	2.29E+02	1.07E-01	1.80E+02	1.40E+05	1.80E+02
o-Terphenyl	84151	-	6.50E+01	2.90E+04	6.50E+01	1.07E-01	1.58E+02	1.07E-01	3.13E+00	4.17E+03	3.13E+00	7.91E-02	2.29E+02	7.91E-02	1.07E-01	2.29E+02	1.07E-01	1.80E+02	1.40E+05	1.80E+02
p-Terphenyl	92944	-	6.50E+01	2.90E+04	6.50E+01	1.07E-01	1.58E+02	1.07E-01	3.13E+00	4.17E+03	3.13E+00	7.91E-02	2.29E+02	7.91E-02	1.07E-01	2.29E+02	1.07E-01	1.80E+02	1.40E+05	1.80E+02
Glycols																				
Diethylene Glycol	111466	-	-	6.11E+03	6.11E+03	-	1.71E-01	1.71E-01	-	4.51E+00	4.51E+00	-	1.09E+00	1.09E+00	-	1.09E+00	1.09E+00	-	2.85E+04	2.85E+04
Triethylene glycol	112276	-	-	2.75E+03	2.75E+03	-	5.29E-02	5.29E-02	-	1.40E+00	1.40E+00	-	3.43E-01	3.43E-01	-	3.43E-01	3.43E-01	-	1.28E+04	1.28E+04
PCDD/PCDFs																				
2,3,7,8-TCDD TEQ	1746016-TEQ	-	4.81E-06	5.05E-05	4.81E-06	7.51E-09	2.52E-07	7.51E-09	2.20E-07	6.66E-06	2.20E-07	3.75E-09	1.43E-07	3.75E-09	4.90E-09	1.43E-07	4.90E-09	1.80E-05	2.36E-04	1.80E-05
Polychlorinated Biphenyls (PCBs)																				
Aroclor 1016	12674112	-	6.63E+00	3.86E+00	3.86E+00	1.38E-02	2.49E-02	1.38E-02	4.04E-01	6.58E-01	4.04E-01	2.83E-02	7.08E-02	2.83E-02	3.75E-02	7.08E-02	3.75E-02	1.61E+01	1.80E+01	1.61E+01
Aroclor 1242	53469219	Aroclor-1242	2.32E-01	1.10E+00	2.32E-01	4.86E-04	7.19E-03	4.86E-04	1.43E-02	1.90E-01	1.43E-02	5.32E-04	9.76E-03	5.32E-04	7.00E-04	9.76E-03	7.00E-04	5.64E-01	5.14E+00	5.64E-01
Aroclor 1248	12672296	-	2.32E-01	1.10E+00	2.32E-01	4.86E-04	7.19E-03	4.86E-04	1.43E-02	1.90E-01	1.43E-02	4.96E-04	9.03E-03	4.96E-04	6.52E-04	9.03E-03	6.52E-04	5.64E-01	5.14E+00	5.64E-01
Aroclor 1254	11097691	-	2.32E-01	1.10E+00	2.32E-01	4.88E-04	7.21E-03	4.88E-04	1.43E-02	1.90E-01	1.43E-02	2.33E-04	4.03E-03	2.33E-04	3.05E-04	4.03E-03	3.05E-04	5.64E-01	5.14E+00	5.64E-01
Aroclor 1260	11096825	-	2.32E-01	1.10E+00	2.32E-01	4.89E-04	7.23E-03	4.89E-04	1.43E-02	1.91E-01	1.43E-02	9.33E-06	1.55E-04	9.33E-06	1.22E-05	1.55E-04	1.22E-05	5.64E-01	5.14E+00	5.64E-01
Aroclor 5460	11126424	-	2.32E-01	1.10E+00	2.32E-01	4.86E-04	7.19E-03	4.86E-04	1.43E-02	1.90E-01	1.43E-02	4.96E-04	9.03E-03	4.96E-04	6.52E-04	9.03E-03	6.52E-04	5.64E-01	5.14E+00	5.64E-01
PCB TEQ	1746016-PCB	-	3.57E-06	3.86E-05	3.57E-06	7.50E-09	2.52E-07	7.50E-09	2.20E-07	6.66E-06	2.20E-07	4.79E-09	1.91E-07	4.79E-09	6.27E-09	1.91E-07	6.27E-09	8.67E-06	1.80E-04	8.67E-06

Notes:

'-' - none established/not applicable.
HQ - hazard quotient
mg/kg - milligrams per kilogram
PCDD/PCDF - polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans
RBSL - Risk-based Screening Level
TCDD - 2,3,7,8-Tetrachlorodibenzo-p-dioxin
TEQ - toxic equivalency

a - Please note that different chemical names have been used for different programs at the SSFL, and there can be additional analyte synonyms than those presented. Therefore, any chemical synonym should be verified using the CAS number listed.
b - Suburban Residential and Recreational Soil RBSLs include the following pathways: ingestion of soil, dermal contact with soil, and inhalation of dust and volatiles from soil.
c - SRAM-based and USEPA Default-based Suburban Residential Garden RBSLs include the ingestion of fruits/vegetables pathway.
d - Rural Residential Soil RBSLs include the following pathways: ingestion of soil, dermal contact with soil, inhalation of dust and volatiles from soil, ingestion of fruits/vegetables, ingestion of beef, ingestion of milk, ingestion of poultry, ingestion of eggs, ingestion of swine, and ingestion of fish.
e - As agreed between DTSC and the Tech Team, food uptake pathways are not evaluated for this chemical.
f - The suburban residential RBSL for non-carcinogenic effect of 4.6 mg/kg was obtained from the HHRA Note Number 3 (DTSC, 2014) per the DTSC. The cadmium RBSLs for non-carcinogenic effects for other receptors were calculated using the exposure assumptions for an adult as described in Section 3.2.1.
g - DTSC, 2009a. The soil concentration (77 mg/kg) that would produce an increase of 1 µg/dL lead in a residential 90th percentile child's blood assuming that background lead contributions from air, water, and homegrown produce are negligible. The soil lead concentration of 77 mg/kg was rounded to 80 mg/kg, per communication with DTSC.
h - DTSC, 2009a. The soil concentration that would produce an increase of 1 µg/dL lead in a residential 90th percentile child's blood assuming that background lead contributions from air and water are negligible and that 100 percent of the child's diet is derived from home-grown produce. Value was estimated using LeadSpread (version 7) and doesn't include contributions from direct soil pathways (e.g., incidental ingestion, dermal contact, and inhalation of dust).
i - DTSC, 2009a. The soil concentration that would produce an increase of 1 µg/dL lead in a residential 90th percentile child's blood assuming that background lead contributions from air and water are negligible and that 25 percent of the child's diet is derived from home-grown produce. Value was estimated using LeadSpread (version 7) and doesn't include contributions from direct soil pathways (e.g., incidental ingestion, dermal contact, and inhalation of dust).
j - DTSC, 2009a. The soil concentration that would produce an increase of 1 µg/dL lead in a residential 90th percentile child's blood assuming that background lead contributions from air and water are negligible and that 100 percent of the child's diet is derived from home-grown produce. Value was estimated using LeadSpread (version 7) and doesn't include contributions from beef, milk, poultry, eggs, swine, and fish, which cannot be evaluated using the LeadSpread model. If these pathways were included, the value would likely be less.
k - DTSC, 2009a. The soil concentration (360 mg/kg) that would produce an increase of 1 µg/dL lead in a residential 90th percentile child's blood assuming that background lead contributions from air, water, and homegrown produce are negligible. An exposure frequency of 1.5 days/week was used in the LeadSpread model, per communication with DTSC.

Appendix B-2

Boeing Proposed Ecological Risk Based Screening Levels

(Source: Appendix F of the Finalized Standardized Risk Assessment Methodology, Revision 2 Addendum, Santa Susana Field Laboratory, Ventura County, California dated August 2014)

Table 12-1
Summary of the Lowest Ecological Risk-based Screening Levels by Media

Chemical	CAS#	Chemical Synonym	Water				Sediment		Soil				Soil Vapor	
					Lowest		Lowest				Lowest			
			Terrestrial Plant RBSL [g] (mg/L)	Water Column Community RBSL [g] (mg/L)	Low TRV-Based RBSL [g,h] (mg/L)	High TRV-Based RBSL [g,h] (mg/L)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Terrestrial Plants RBSL [g] (mg/kg)	Soil Invertebrates RBSL [g] (mg/kg)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Low TRV-Based RBSL [g] (mg/m^3)	High TRV-Based RBSL [g] (mg/m^3)
Inorganic Compounds														
Aluminum	7429905	Aluminum, Total	0.3	0.087	13	130	25,500	NTV	50	NTV	16	160	NA	NA
Aluminum, dissolved	7429905-D	-	0.3	0.087	13	130	NC	NC	NC	NC	NC	NC	NA	NA
Antimony	7440360	Antimony, Total	NTV	0.03	0.40	19	2	3	5	78	0.042	2.0	NA	NA
Antimony, dissolved	7440360-D	-	NTV	0.03	0.40	19	NC	NC	NC	NC	NC	NC	NA	NA
Arsenic	7440382	Arsenic, Total	0.001	0.15	2.2	32	9.79	33	18	60	2.1	31	NA	NA
Arsenic, dissolved	7440382-D	-	0.001	0.15	2.2	32	NC	NC	NC	NC	NC	NC	NA	NA
Barium	7440393	Barium, Total	NTV	0.004	110	220	48	1,490	500	330	44	89	NA	NA
Barium, dissolved	7440393-D	-	NTV	0.004	110	220	NC	NC	NC	NC	NC	NC	NA	NA
Beryllium	7440417	Beryllium, Total	0.5	0.00066	3.6	9.5	NTV	NTV	10	40	4.8	13	NA	NA
Beryllium, dissolved	7440417-D	-	0.5	0.00066	3.6	9.5	NC	NC	NC	NC	NC	NC	NA	NA
Boron	7440428	Boron, Total	1	0.0016	150	530	520	1,800	0.5	NTV	22	73	NA	NA
Boron, dissolved	7440428-D	-	1	0.0016	150	530	NC	NC	NC	NC	NC	NC	NA	NA
Cadmium	7440439	Cadmium, Total	0.1	0.00028	0.41	18	0.99	4.98	32	140	0.019	0.81	NA	NA
Cadmium, dissolved	7440439-D	-	0.1	0.00025	0.41	18	NC	NC	NC	NC	NC	NC	NA	NA
Chromium	7440473	Chromium, Total	0.05	0.086	14	84	43.4	111	1	64	1.9	14	NA	NA
Chromium, dissolved	7440473-D	-	0.05	0.074	14	84	NC	NC	NC	NC	NC	NC	NA	NA
Cobalt	7440484	Cobalt, Total	0.06	0.023	8.1	95	10	4,380	13.0	300	12	190	NA	NA
Cobalt, dissolved	7440484-D	-	0.06	0.023	8.1	95	NC	NC	NC	NC	NC	NC	NA	NA
Copper	7440508	Copper, Total	0.06	0.0094	12	280	31.6	149	70	80	1.1	24	NA	NA
Copper, dissolved	7440508-D	-	0.06	0.0090	12	280	NC	NC	NC	NC	NC	NC	NA	NA
Cyanides	57125	Cyanide, Total	NC	0.0052	0.21	2.1	NC	NC	0.9	0.9	0.18	1.8	NA	NA
Fluoride	7782414	-	5	NTV	41	170	120	490	200	NTV	35	140	NA	NA
Hexavalent Chromium	18540299	Hexavalent	NC	0.0114	62	260	NC	NC	30	0.4	7.3	30	NA	NA
Lead	7439921	Lead, Total	0.02	0.0032	0.074	46	1.1	128	115	1,700	0.062	39	NA	NA
Lead, dissolved	7439921-D	-	0.02	0.0025	0.074	46	NC	NC	NC	NC	NC	NC	NA	NA
Lithium	7439932	Lithium, Total	NC	NC	NC	NC	NC	NC	2	NTV	43	87	NA	NA
Manganese	7439965	Manganese, Total	4	0.12	93	1,070	630	1,100	220	450	79	920	NA	NA
Manganese, dissolved	7439965-D	-	4	0.12	93	1,070	NC	NC	NC	NC	NC	NC	NA	NA
Mercury	7439976	Mercury, Total	NC	0.00091	2.4	4.7	0.18	1.06	0.3	0.1	0.87	1.7	NA	NA
Mercury, dissolved	7439976-D	-	NC	0.00077	2.4	4.7	NC	NC	NC	NC	NC	NC	NA	NA
Methyl Mercury	22967926	-	NC	NC	NC	NC	NC	NC	NTV	2.5	0.18	0.82	NA	NA
Molybdenum	7439987	Molybdenum, Total	0.5	0.37	1.8	18	66	660	2	NTV	0.13	1.3	NA	NA
Molybdenum, dissolved	7439987-D	-	0.5	0.37	1.8	18	NC	NC	NC	NC	NC	NC	NA	NA
Nickel	7440020	Nickel, Total	0.5	0.052	0.90	210	22.7	48.6	38	280	0.13	30	NA	NA
Nickel, dissolved	7440020-D	-	0.5	0.052	0.90	210	NC	NC	NC	NC	NC	NC	NA	NA
Selenium	7782492	Selenium, Total	0.7	0.0050	0.34	4.9	0.84	3.4	0.52	4.1	0.10	1.5	NA	NA
Selenium, dissolved	7782492-D	-	0.7	0.0046	0.34	4.9	NC	NC	NC	NC	NC	NC	NA	NA
Silica, dissolved	7631869-D	-	NTV	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
Silver	7440224	Silver, Total	0.1	0.00038	11	320	1	4.5	560	NTV	0.99	29	NA	NA
Silver, dissolved	7440224-D	-	NC	0.00032	11	320	NC	NC	NC	NC	NC	NC	NA	NA
Strontium	7440246	Strontium, Total	NTV	1.5	1,780	2,570	NTV	NTV	NTV	NTV	1,210	1,750	NA	NA
Strontium, dissolved	7440246-D	-	NTV	1.5	1,780	2,570	NC	NC	NC	NC	NC	NC	NA	NA
Thallium	7440280	Thallium, Total	0.02	0.012	1.8	9.7	6.5	65	1	1.4	1.8	8.2	NA	NA

Table 12-1
Summary of the Lowest Ecological Risk-based Screening Levels by Media

Chemical	CAS#	Chemical Synonym	Water				Sediment		Soil				Soil Vapor	
					Lowest		Lowest				Lowest			
			Terrestrial Plant RBSL [g] (mg/L)	Water Column Community RBSL [g] (mg/L)	Low TRV-Based RBSL [g,h] (mg/L)	High TRV-Based RBSL [g,h] (mg/L)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Terrestrial Plants RBSL [g] (mg/kg)	Soil Invertebrates RBSL [g] (mg/kg)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Low TRV-Based RBSL [g] (mg/m^3)	High TRV-Based RBSL [g] (mg/m^3)
Thallium, dissolved	7440280-D	-	0.02	0.012	1.8	9.7	NC	NC	NC	NC	NC	NC	NA	NA
Tin	7440315	Tin, Total	NC	NC	NC	NC	0.048	260	50	NTV	31	77	NA	NA
Titanium	7440326	Titanium, Total	NC	2	5.3	53	15	150	NTV	NTV	4.5	45	NA	NA
Titanium, dissolved	7440326-D	-	NC	2	5.3	53	NC	NC	NC	NC	NC	NC	NA	NA
Vanadium	7440622	Vanadium, Total	0.2	0.02	1.8	9.0	NC	NC	50	130	3.3	16	NA	NA
Vanadium, dissolved	7440622-D	-	0.2	0.02	1.8	9.0	NC	NC	NC	NC	NC	NC	NA	NA
Zinc	7440666	Zinc, Total	0.4	0.12	65	910	121	459	160	120	19	320	NA	NA
Zinc, dissolved	7440666-D	-	0.4	0.12	65	910	NC	NC	NC	NC	NC	NC	NA	NA
Zirconium	7440677	Zirconium, Total	NC	NC	NC	NC	NC	NC	NTV	NTV	8.0	NTV	NA	NA
Energetic Constituents														
1,2-Dinitrobenzene	528290	o-Dinitrobenzene	NC	NC	NC	NC	6.5	65	NTV	NTV	0.92	2.5	NA	NA
1,2-Diphenylhydrazine	122667	-	NC	0.27	NTV	NTV	NC	NC	NC	NC	NC	NC	NA	NA
1,3-Dinitrobenzene	99650	m-Dinitrobenzene	NC	NC	NC	NC	2.6	26	NTV	40	0.92	2.5	NA	NA
2,4,6-Trinitrotoluene	118967	-	NC	NC	NC	NC	0.092	28	NTV	55	0.13	0.65	NA	NA
2,4-diamino-6-nitrotoluene	6629294	-	NC	NC	NC	NC	NTV	NTV	NC	NC	NC	NC	NA	NA
2,4-Dinitrotoluene	121142	-	NC	0.23	0.053	5.1	0.0018	0.23	NC	NC	NC	NC	NA	NA
2-Amino-4,6-dinitrotoluene	35572782	-	NC	NC	NC	NC	0.0416	20	NTV	20.3	0.0060	0.46	NA	NA
2-Nitrotoluene	88722	-	NC	NC	NC	NC	4.06	NTV	NC	NC	NC	NC	NA	NA
3-Nitrotoluene	99081	-	NC	NC	NC	NC	4.06	NTV	NC	NC	NC	NC	NA	NA
4-Amino-2,6-dinitrotoluene	19406510	4-Am-2,6-DNT	NC	NC	NC	NC	0.0416	NTV	NC	NC	NC	NC	NA	NA
4-Nitrotoluene	99990	-	NC	NC	NC	NC	4.06	NTV	NC	NC	NC	NC	NA	NA
HMX	2691410	-	NC	NC	NC	NC	NTV	NTV	NTV	6.5	110	630	NA	NA
Hydrazine	302012	-	NC	NC	NC	NC	NC	NC	NTV	NTV	NTV	NTV	NA	NA
Monomethylhydrazine	60344	-	NC	NC	NC	NC	NC	NC	NTV	NTV	0.35	1.7	NA	NA
Nitroglycerin	55630	-	NC	NC	NC	NC	NTV	NTV	NC	NC	NC	NC	NA	NA
Perchlorate	14797730	-	NTV	NTV	43	140	200	400	107	NTV	0.50	7.7	NA	NA
PETN	78115	-	NC	NC	NC	NC	NTV	NTV	NC	NC	NC	NC	NA	NA
RDX	121824	-	NC	NC	NC	NC	0.013	130	NTV	19	0.30	1.5	NA	NA
Tetryl	479458	-	NC	NC	NC	NC	NTV	NTV	NC	NC	NC	NC	NA	NA
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane	630206	-	NC	NC	NC	NC	NTV	NTV	NTV	NTV	38	190	NA	NA
1,1,1-Trichloroethane	71556	-	100	0.011	6,760	17,100	0.03	NTV	1,000	NTV	2,460	6,240	250	760
1,1,2,2-Tetrachloroethane	79345	-	NC	0.61	140	270	NC	NC	NTV	NTV	51	100	NA	NA
1,1,2-Trichloro-1,2,2-trifluoroethane	76131	Freon 113	NTV	NTV	920	NTV	NTV	NTV	NTV	NTV	220	NTV	1,210	58,900
1,1,2-Trichloroethane	79005	-	100	1.2	13	150	NC	NC	1,000	NTV	9.0	100	1.1	11
1,1-Dichloroethane	75343	-	100	0.047	91	180	0.027	530	NTV	NTV	78	160	240	480
1,1-Dichloroethene	75354	-	100	0.025	17	45	0.031	NTV	NTV	NTV	6.9	18	7.9	40
1,1-Dichloropropene	563586	-	NC	NC	NC	NC	NTV	NTV	NC	NC	NC	NC	NA	NA
1,2,3-Trichlorobenzene	87616	-	NC	NC	NC	NC	NC	NC	48	20	10	37	66	210
1,2,3-Trichloropropane	96184	-	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
1,2,4-Trichlorobenzene	120821	-	NC	0.11	50	180	NC	NC	48	20	10	37	66	210
1,2,4-Trimethylbenzene	95636	-	NC	NC	NC	NC	NTV	NTV	1,000	65	3.1	4.0	10	52
1,2-Dibromoethane	106934	-	NC	NC	NC	NC	NTV	NTV	NTV	NTV	12	62	NA	NA
1,2-Dichlorobenzene	95501	o-Dichlorobenzene	NTV	0.014	580	580	0.013	NTV	248	NTV	130	130	66	210

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Summary of the Lowest Ecological Risk-based Screening Levels by Media

Chemical	CAS#	Chemical Synonym	Water				Sediment		Soil				Soil Vapor	
					Lowest		Lowest				Lowest			
			Terrestrial Plant RBSL [g] (mg/L)	Water Column Community RBSL [g] (mg/L)	Low TRV-Based RBSL [g,h] (mg/L)	High TRV-Based RBSL [g,h] (mg/L)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Terrestrial Plants RBSL [g] (mg/kg)	Soil Invertebrates RBSL [g] (mg/kg)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Low TRV-Based RBSL [g] (mg/m^3)	High TRV-Based RBSL [g] (mg/m^3)
1,2-Dichloroethane	107062	-	100	0.91	91	180	0.25	530	NTV	NTV	78	160	56	NTV
1,2-Dichloroethene	540590	1,2-Dichloroethenes	100	NC	NC	NC	NC	NC	NTV	NTV	130	250	25	130
1,2-Dichloropropane	78875	-	NC	5.7	48	240	NTV	NTV	NTV	700	33	160	1.7	8.3
1,3,5-Trimethylbenzene	108678	-	NC	NC	NC	NC	NTV	NTV	1,000	65	3.2	4.1	10	52
1,3-Dichlorobenzene	541731	m-Dichlorobenzene	NC	0.071	99	500	0.013	NTV	248	20	23	110	66	210
1,3-Dichloropropane	142289	-	NC	NC	NC	NC	NTV	NTV	NC	NC	NC	NC	NA	NA
1,3-Dichloropropene	542756	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	5.4	22
1,4-Dichlorobenzene	106467	p-Dichlorobenzene	NTV	0.015	24	120	0.11	NTV	248	20	5.6	28	NA	NA
2,2-Dichloro-1,1,1-trifluoroethane	306832	Freon 123	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
2-Chloroethylvinyl ether	110758	2-Chloroethyl vinyl ether	NC	0.122	240	1,340	NTV	NTV	NTV	7.4	160	910	NA	NA
2-Chloronaphthalene	91587	-	NC	1.6	840	2,030	NC	NC	NC	NC	NC	NC	NA	NA
2-Chlorophenol	95578	-	NC	4	34	340	NC	NC	NC	NC	NC	NC	NA	NA
2-Hexanone	591786	Methyl butyl ketone	NC	NC	NC	NC	0.022	NTV	NTV	NTV	23	170	6.5	33
2-Nitrophenol	88755	o-Nitrophenol	10	0.23	18	NTV	NC	NC	NC	NC	NC	NC	NA	NA
3-Chloro-2(Chloromethyl)-1-Propene	1871574	-	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
Acetone	67641	-	NTV	1.5	68	340	0.0087	NTV	NTV	NTV	46	230	1,740	8,710
Acetic Acid	64197	-	NC	NC	NC	NC	NC	NC	NTV	NTV	410	1,660	NA	NA
Acrolein	107028		NC	0.003	0.34	3.4	NC	NC	NC	NC	NC	NC	NA	NA
Acrylonitrile	107131		NC	8	28	95	NC	NC	NC	NC	NC	NC	NA	NA
Benzene	71432	-	NTV	0.13	180	1,780	0.16	NTV	31	31	73	730	0.76	3.8
Biphenyl	92524	1,1'-Biphenyl	2	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
bis(2-Chloroethyl) ether	111444	s-Dichloroethylether	NTV	0.122	240	1,340	NC	NC	NC	NC	NC	NC	NA	NA
Bromide	24959679	-	NTV	NTV	NC	NC	NTV	NTV	NTV	NTV	NTV	NTV	NA	NA
Bromobenzene	108861	-	NC	NC	NC	NC	NC	NC	31	31	25	43	NA	NA
Bromochloromethane	74975	-	NC	NC	NC	NC	NTV	NTV	NC	NC	NC	NC	NA	NA
Bromodichloromethane	75274	-	NTV	11	24	120	NTV	NTV	NTV	NTV	10	51	NA	NA
Bromomethane	74839	-	NTV	11	4.7	24	NTV	NTV	NTV	NTV	3.2	16	NA	NA
Carbon Disulfide	75150	-	NTV	0.00092	74	NC	0.00085	NTV	NTV	NTV	51	NTV	1.6	7.9
Carbon Tetrachloride	56235	-	NTV	0.0098	110	NTV	NC	NC	NTV	NTV	35	NTV	8.4	42
Chlorobenzene	108907	Monochlorobenzene	NC	0.064	64	130	NC	NC	1,000	40	21	43	77	230
Chloroethane	75003	Ethyl chloride	NC	NTV	310	590	NTV	NTV	NC	NC	NC	NC	1,320	4,350
Chloroform	67663	Trichloromethane	NTV	0.028	100	280	NTV	NTV	NTV	NTV	69	190	1.6	8.1
Chloromethane	74873	Methyl chloride	NTV	11	4.7	24	NTV	NTV	NTV	NTV	3.2	16	5.0	25
cis-1,2-Dichloroethene	156592	Dichloroethylene	100	0.59	310	330	0.031	NTV	NTV	NTV	210	220	25	130
cis-1,3-Dichloropropene	10061015	-	NC	0.000055	23	34	NTV	NTV	NC	NC	NC	NC	NA	NA
Cumene	98828	Isopropylbenzene	NC	NC	NC	NC	0.086	1.4	NTV	NTV	1.3	13	31	160
Dibenzofuran	132649	-	NC	NC	NC	NC	NC	NC	NTV	29	1.2	12	NA	NA
Dibromofluoromethane	1868537	-	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NTV	NTV
Dibromomethane	74953	-	NC	NC	NC	NC	NTV	NTV	NTV	NTV	27	230	NA	NA
Dichlorodifluoromethane	75718	Freon 12	NTV	NC	NC	NC	NTV	NTV	NTV	NTV	41	410	1,210	58,900
Diphenyl ether	101848	-	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
Ethylbenzene	100414	-	NC	0.0073	330	980	0.004	NTV	55	55	79	240	31	160
Methyl ethyl ketone	78933	2-Butanone	NTV	NC	NC	NC	NC	NC	NTV	NTV	8,160	21,100	1,150	3,440

Table 12-1
Summary of the Lowest Ecological Risk-based Screening Levels by Media

Chemical	CAS#	Chemical Synonym	Water				Sediment		Soil				Soil Vapor	
					Lowest		Lowest				Lowest			
			Terrestrial Plant RBSL [g] (mg/L)	Water Column Community RBSL [g] (mg/L)	Low TRV-Based RBSL [g,h] (mg/L)	High TRV-Based RBSL [g,h] (mg/L)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Terrestrial Plants RBSL [g] (mg/kg)	Soil Invertebrates RBSL [g] (mg/kg)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Low TRV-Based RBSL [g] (mg/m^3)	High TRV-Based RBSL [g] (mg/m^3)
Methyl isobutyl ketone (MIBK)	108101	pentanone	NC	NC	NC	NC	0.033	150	NTV	NTV	4.5	45	NA	NA
Methyl sulfide	75183	-	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
Methyl-tert-butyl- Ether (MTBE)	1634044	-	NC	NC	NC	NC	NTV	NTV	NC	NC	NC	NC	NA	NA
Methylene chloride	75092	Dichloromethane	NTV	2.2	40	340	0.37	NTV	NTV	NTV	27	230	12	58
m-Xylene	108383	meta-Xylene	NC	0.013	14	18	NC	NC	NC	NC	NC	NC	NA	NA
m-Xylene & p-Xylene	136777612	meta- and para-Xylenes	100	0.013	14	18	0.16	NTV	1,000	65	3.3	4.2	10	52
n-Butylbenzene	104518	-	NC	NC	NC	NC	NTV	NTV	NTV	NTV	61	180	31	160
n-Hexane	110543	-	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
Nitrobenzene	98953	-	8	27	6.1	10	0.021	NTV	NC	NC	NC	NC	NA	NA
n-Propylbenzene	103651	-	NC	NC	NC	NC	NTV	NTV	NTV	NTV	73	220	31	160
o-Chlorotoluene	95498	2-Chlorotoluene	NC	NC	NC	NC	NC	NC	NTV	20	16	63	NA	NA
o-Xylene	95476	-	NC	NC	NC	NC	0.16	NTV	1,000	65	3.4	4.3	10	52
p-Chlorotoluene	106434	4-Chlorotoluene	NC	NC	NC	NC	NC	NC	NTV	20	16	64	NA	NA
p-Cymene	99876	p-Isopropyltoluene	NC	NC	NC	NC	0.086	2.0	NTV	NTV	3.7	37	10	52
sec-Butylbenzene	135988	-	NC	NC	NC	NC	0.026	0.26	NTV	NTV	0.98	9.8	31	160
Styrene	100425	Vinylbenzene	NC	NC	NC	NC	0.559	NTV	320	NTV	210	420	260	910
tert-Butylbenzene	98066	-	NC	NC	NC	NC	0.062	0.62	NTV	NTV	1.1	11	31	160
Tetralin	119642	-	NC	NC	NC	NC	0.18	0.56	100	29	58	290	NA	NA
Tetrachloroethene	127184	-	10	0.098	9.5	47	0.41	NTV	1,000	NTV	2.2	11	32	160
Toluene	108883	Toluol	10	0.0098	180	1,760	0.05	NTV	200	75	59	590	0.22	0.56
trans-1,2-Dichloroethene	156605	-	100	0.59	310	590	0.40	NTV	NTV	NTV	130	240	25	130
trans-1,3-Dichloropropene	10061026	-	NC	0.244	23	34	NTV	NTV	NC	NC	NC	NC	NA	NA
Trichloroethene	79016	(TCE)	10	0.047	4.7	47	0.0969	NTV	3	3	1.8	18	8.5	43
Trichlorofluoromethane	75694	-	NTV	11	470	2,360	NC	NC	NTV	NTV	170	850	1,210	58,900
Vinyl chloride	75014	-	NTV	0.93	1.1	11	NTV	NTV	NTV	NTV	0.78	7.8	0.73	3.7
Xylenes, Total	1330207	Isomers	100	0.013	14	18	NC	NC	1,000	65	3.4	4.2	10	52
Semi-Volatile Organic Compounds														
1,1-Dimethylhydrazine	57147	-	NC	NC	NC	NC	NC	NC	NTV	NTV	0.35	1.7	NA	NA
1,2-Dibromo-3-chloropropane	96128	1,2-Dibromo-3-CPA	NC	NC	NC	NC	NTV	NTV	NTV	NTV	0.28	1.4	NA	NA
1,4-Dioxane	123911	-	NTV	NC	NC	NC	NC	NC	NTV	NTV	2.3	4.6	NA	NA
2,4,5-Trichlorophenol	95954	-	NC	NC	NC	NC	NC	NC	4	9	75	220	NA	NA
2,4,6-Trichlorophenol	88062	-	10	0.97	340	1,010	NC	NC	4	10	75	230	NA	NA
2,4-Dichlorophenol	120832		NC	0.365	2.0	20	NC	NC	NC	NC	NC	NC	NA	NA
2,4-Dimethylphenol	105679	-	NC	2.12	170	840	NC	NC	NTV	NTV	65	330	NA	NA
2,4-Dinitrophenol	51285		NC	0.23	0.70	7.0	NC	NC	NC	NC	NC	NC	NA	NA
2,6-Dinitrotoluene	606202	-	NC	0.23	2.7	14	0.0416	NTV	NC	NC	NC	NC	NA	NA
2-n-Butoxyethanol	111762	Butoxycellosolve	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
3,3'-Dichlorobenzidine	91941	-	NC	NTV	2.0	20	NC	NC	NC	NC	NC	NC	NA	NA
3,5-Dimethylphenol	108689	-	NC	NC	NC	NC	NC	NC	NTV	NTV	2.6	26	NA	NA
4,6-Dinitro-o-cresol	534521	Methylphenol	NC	0.23	18	NTV	NC	NC	NC	NC	NC	NC	NA	NA
4-Bromophenyl phenyl ether	101553		NC	0.0015	NTV	NTV	NC	NC	NC	NC	NC	NC	NA	NA
4-Chlorophenylphenyl ether	7005723		NC	NTV	NTV	NTV	NC	NC	NC	NC	NC	NC	NA	NA
4-Nitrophenol	100027	-	10	0.3	18	NTV	NC	NC	NC	NC	8.0	NC	NA	NA

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Chemical	CAS#	Chemical Synonym	Water				Sediment		Soil				Soil Vapor	
					Lowest		Lowest				Lowest			
			Terrestrial Plant RBSL [g] (mg/L)	Water Column Community RBSL [g] (mg/L)	Low TRV-Based RBSL [g,h] (mg/L)	High TRV-Based RBSL [g,h] (mg/L)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Terrestrial Plants RBSL [g] (mg/kg)	Soil Invertebrates RBSL [g] (mg/kg)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Low TRV-Based RBSL [g] (mg/m^3)	High TRV-Based RBSL [g] (mg/m^3)
Benzidine	92875	-	NC	0.0039	3.6	18	NC	NC	NC	NC	NC	NC	NA	NA
Benzoic acid	65850	-	NC	NC	NC	NC	0.065	150	NTV	NTV	4.5	45	NA	NA
Benzyl alcohol	100516	-	NC	NC	NC	NC	NC	NC	NTV	NTV	4.5	45	NA	NA
bis(2-Chloroethoxy)methane	111911	-	NTV	11	240	1,340	NC	NC	NC	NC	NC	NC	NA	NA
bis(2-Chloroisopropyl)ether	39638329	-	NC	0.122	240	1,340	NC	NC	NC	NC	NC	NC	NA	NA
bis(2-Ethylhexyl) phthalate	117817	bis(2-ethylhexyl)phthalate	20	0.003	5.8	1,240	0.000097	2.6	1,000	NTV	0.32	65	NA	NA
Bromoform	75252	-	NTV	11	60	120	0.654	NTV	NTV	NTV	23	45	NA	NA
Butyl benzyl phthalate	85687	-	NC	0.019	540	1,590	10.9	48	NTV	NTV	90	260	NA	NA
Carbazole	86748	-	NC	NC	NC	NC	NC	NC	2.0	29	1.5	15	NA	NA
Dibenzyl Ether	103504	-	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
Dibromochloromethane	124481	-	NTV	11	72	140	NTV	NTV	NTV	NTV	29	59	NA	NA
Diethyl phthalate	84662	-	20	0.21	5.3	53	NC	NC	134	NTV	2.3	23	NA	NA
Dimethyl phthalate	131113	-	NC	0.21	5.3	53	0.006	150	134	200	4.5	45	NA	NA
Di-n-butyl phthalate	84742	Di-n-butylphthalate	20	0.035	0.58	5.8	0.0033	0.033	200	NTV	0.11	1.1	NA	NA
Di-n-octyl phthalate	117840	Di-n-octyl-phthalate	20	0.708	15	150	NC	NC	200	NTV	13	130	NA	NA
Formaldehyde	50000	-	NTV	NTV	64	550	NTV	NTV	NTV	NTV	43	380	NA	NA
Hexachlorobenzene	118741		NC	0.25	0.54	2.0	NC	NC	NC	NC	NC	NC	NA	NA
Hexachlorobutadiene	87683	-	NC	0.0093	0.14	0.68	0.0013	NTV	NTV	NTV	0.022	0.11	NA	NA
Hexachlorocyclopentadiene	77474	-	NC	0.0052	20	37	NC	NC	NC	NC	3.0	5.6	NA	NA
Hexachloroethane	67721		NC	0.012	3.4	51	NC	NC	NC	NC	NC	NC	NA	NA
Isophorone	78591	-	NC	117	510	1,210	NC	NC	NC	NC	NC	NC	NA	NA
Isopropanol	67630	Isopropyl alcohol	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
m-Cresol	108394	3-Methylphenol	NC	NC	NC	NC	NC	NC	96	NTV	5.1	51	NA	NA
n-Nitrosodimethylamine	62759	e	NTV	5.85	9.6	120	0.028	NTV	NTV	20	6.5	79	NA	NA
n-Nitrosodi-n-propylamine	621647	Nitrosodipropylamin	NTV	NTV	9.6	120	NC	NC	NC	NC	NC	NC	NA	NA
n-Nitrosodiphenylamine	86306	-	NTV	0.21	9.6	120	NC	NC	NTV	20	2.3	28	NA	NA
o-Cresol	95487	-	NC	NC	NC	NC	NC	NC	100	NTV	4.3	43	NA	NA
p-Chloro-m-cresol	59507	Methylphenol	NC	0.03	6.0	60	NC	NC	100	NTV	1.7	17	NA	NA
p-Cresol	106445	4-Methylphenol	NC	NC	NC	NC	0.10	150	100	NTV	4.3	43	NA	NA
Pentachlorophenol	87865	PCP	0.03	0.015	36	160	NC	NC	5	31	2.8	10	NA	NA
Phenol	108952	Total Phenols	10	0.2	6.0	60	NC	NC	70	30	5.1	51	NA	NA
p-Nitroaniline	100016	4-Nitroaniline	NC	NC	NC	NC	NC	NC	NTV	NTV	3.4	34	NA	NA
Tetramethylurea	632224	-	NTV	NC	NC	NC	NC	NC	NC	NC	NC	NC	NA	NA
Polynuclear Aromatic Hydrocarbons														
1-Methyl naphthalene	90120	1-Methylnaphthalene	NC	NC	NC	NC	NC	NC	100	29	52	260	NA	NA
2-Methylnaphthalene	91576	Naphthalene, 2-methyl-	NC	NC	NC	NC	NC	NC	100	29	53	260	NA	NA
Acenaphthene	83329	-	NC	0.023	5.3	53	0.0067	0.29	20	29	1.1	11	NA	NA
Acenaphthylene	208968	-	NC	4.84	5.3	53	NC	NC	20	29	0.33	3.3	NA	NA
Anthracene	120127	-	NC	0.00073	5.9	59	0.037	0.37	2.0	29	2.2	22	NA	NA
Benzo(a)anthracene	56553	Benz[a]anthracene	NC	0.000027	4.2	260	0.108	1.05	1.5	18	0.81	50	NA	NA
Benzo(a)pyrene	50328	Benzo (a) pyrene	NC	0.000014	4.2	260	0.15	1.45	1.2	18	5.1	310	NA	NA
Benzo(b)fluoranthene	205992	Benz[e]acephenanthrylene 1	NC	0.00907	4.2	260	1.8	NTV	1.2	18	2.4	150	NA	NA

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					Lowest		Lowest				Lowest			
			Terrestrial Plant RBSL [g] (mg/L)	Water Column Community RBSL [g] (mg/L)	Low TRV-Based RBSL [g,h] (mg/L)	High TRV-Based RBSL [g,h] (mg/L)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Terrestrial Plants RBSL [g] (mg/kg)	Soil Invertebrates RBSL [g] (mg/kg)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Low TRV-Based RBSL [g] (mg/m^3)	High TRV-Based RBSL [g] (mg/m^3)
Benzo(e)pyrene	192972	-	NC	NC	NC	NC	0.195	1.52	1.2	18	4.4	270	NA	NA
Benzo(ghi)perylene	191242	Benzo (g,h,i) perylene	NC	0.00764	4.2	260	0.17	0.3	1.2	18	7.4	460	NA	NA
Benzo(k)fluoranthene	207089	e	NC	NTV	4.2	260	0.0272	13.4	1.2	18	4.9	310	NA	NA
Chrysene	218019	-	NC	0.000014	4.2	260	0.166	1.29	1.2	18	1.2	76	NA	NA
Dibenzo(a,h)anthracene	53703	anthracene	NC	0.000014	4.2	260	0.033	0.1	1.2	18	2.3	140	NA	NA
Fluoranthene	206440	-	NC	0.00616	100	2,400	0.423	2.23	1.9	29	54	880	NA	NA
Fluorene	86737	-	NC	0.0039	5.3	53	0.056	0.536	1.2	29	0.89	8.9	0.48	2.4
Indeno(1,2,3-cd)pyrene	193395	pyrene	NC	0.00431	4.2	260	0.01732	0.33	1.2	18	4.8	300	NA	NA
Naphthalene	91203	-	10	0.012	220	1,100	NC	NC	100	29	26	130	2.5	12
Perylene	198550	-	NC	NC	NC	NC	NC	NC	NTV	29	10	220	NA	NA
Phenanthrene	85018	-	NC	0.0063	6.0	60	0.204	1.17	1.2	29	1.3	13	0.48	2.4
Pyrene	129000	-	NC	0.000025	4.2	260	0.195	1.52	1.2	18	1.2	73	NA	NA
Pesticides														
4,4'-DDD	72548	p,p'-DDD	NTV	0.000001	0.047	7.9	0.000016	0.0026	12	12	0.0051	0.85	NA	NA
4,4'-DDE	72559	p,p'-DDE	NTV	0.000001	0.047	3.2	NC	NC	12	12	0.0041	0.28	NA	NA
4,4'-DDT	50293	p,p'-DDT	NTV	0.000001	0.047	7.9	NC	NC	12	12	0.0035	0.58	NA	NA
Aldrin	309002	-	NTV	0.00030	0.68	6.8	NC	NC	NTV	NTV	0.057	0.57	NA	NA
alpha-BHC	319846	Hexachloride	NTV	0.0022	0.34	12	NC	NC	1,000	NTV	0.073	2.9	NA	NA
beta-BHC	319857	Hexachloride	NTV	0.0022	2.7	12	NC	NC	1,000	NTV	0.59	2.9	NA	NA
Chlordane (Technical)	12789036	-	NC	NC	NC	NC	NC	NC	NTV	NTV	1.1	5.6	NA	NA
delta-BHC	319868	Hexachloride	NTV	0.0022	0.34	12	NC	NC	1,000	NTV	0.067	2.6	NA	NA
Dieldrin	60571	-	NTV	0.000056	0.10	4.2	NC	NC	NTV	NTV	0.013	0.58	NA	NA
Endosulfan I	959988	-	NTV	0.000051	1.0	20	NC	NC	1,000	NTV	0.22	4.2	NA	NA
Endosulfan II	33213659	-	NTV	0.000051	1.0	20	NC	NC	1,000	NTV	0.22	4.2	NA	NA
Endosulfan sulfate	1031078	-	NTV	0.000051	1.0	20	NC	NC	1,000	NTV	0.23	4.4	NA	NA
Endrin	72208	-	NTV	0.000036	0.053	0.53	NC	NC	NTV	NTV	0.0079	0.079	NA	NA
Endrin aldehyde	7421934	-	NTV	0.000036	0.053	0.53	NC	NC	NTV	NTV	0.0092	0.092	NA	NA
Endrin ketone	53494705	-	NC	NC	NC	NC	NC	NC	NTV	NTV	0.0086	0.086	NA	NA
gamma-BHC	58899	Lindane	NTV	0.000095	0.34	25	NC	NC	1,000	NTV	0.075	5.6	NA	NA
Heptachlor	76448	-	NTV	0.0000038	0.88	35	NC	NC	1,000	NTV	0.087	3.6	NA	NA
Heptachlor epoxide	1024573	-	NC	0.0000038	0.0084	0.042	NC	NC	1,000	NTV	0.0013	0.0065	NA	NA
MCPA	94746	-	NC	NC	NC	NC	NC	NC	NTV	NTV	0.12	0.61	NA	NA
Mirex	2385855	Mirex (DeChlorane)	NC	NC	NC	NC	NC	NC	NTV	NTV	0.034	0.34	NA	NA
p,p'-Methoxychlor	72435	-	NC	NC	NC	NC	NC	NC	NTV	NTV	2.5	50	NA	NA
Toxaphene	8001352	-	NC	0.000019	54	NTV	NC	NC	NTV	NTV	5.8	NTV	NA	NA
Herbicides														
2,4,5-T	93765	2,4,5-Trichlorophenoxyacetic acid	NC	NC	NC	NC	NC	NC	NTV	NTV	4.8	16	NA	NA
2,4,5-TP (Silvex)	93721	-	NC	NC	NC	NC	NC	NC	NTV	NTV	0.55	1.8	NA	NA
2,4-Dichlorophenoxyacetic Acid (2,4-D)	94757	-	NTV	NC	NC	NC	NC	NC	NTV	NTV	1.1	5.5	NA	NA
2,4-Dichlorophenoxybutyric acid	94826	-	NC	NC	NC	NC	NC	NC	NTV	NTV	6.2	19	NA	NA
2,4-DP (Dichlorprop)	120365	Dichlorprop	NC	NC	NC	NC	NC	NC	NTV	NTV	0.79	3.9	NA	NA

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Dalapon	75990	-	NC	NC	NC	NC	NC	NC	NTV	NTV	39	130	NA	NA
Dicamba	1918009	-	NC	NC	NC	NC	NC	NC	NTV	NTV	14	46	NA	NA
Dinoseb	88857	-	NTV	NC	NC	NC	NC	NC	NTV	NTV	0.18	1.5	NA	NA
MCPP	93652	-	NC	NC	NC	NC	NC	NC	NTV	NTV	2.5	7.4	NA	NA
Terphenyls														
m-Terphenyl	92068	-	NC	NC	NC	NC	NC	NC	68	NTV	0.67	6.7	NA	NA
o-terphenyl	84151	-	NC	NC	NC	NC	0.0043	0.043	NTV	NTV	0.67	6.7	NA	NA
p-Terphenyl	92944	-	NC	NC	NC	NC	0.0016	0.016	NTV	NTV	0.54	5.4	NA	NA
Glycols														
Diethylene Glycol	111466	-	NC	NC	NC	NC	NC	NC	NTV	NTV	NTV	NTV	NA	NA
Triethylene glycol	112276	-	NC	NC	NC	NC	NC	NC	NTV	NTV	NTV	NTV	NA	NA
Total Petroleum Hydrocarbons														
TPH-Diesel Range Organics (DRO)	DRO	Diesel	NTV	NC	NC	NC	NTV	NTV	NTV	NTV	NTV	NTV	NA	NA
TPH-Gasoline Range Organics (GRO)	GRO	Gasoline	NC	NC	NC	NC	NTV	NTV	NTV	NTV	NTV	NTV	NA	NA
TPH-Kerosene Range Organics (KRO)	KRO	Kerosene	NTV	NC	NC	NC	NTV	NTV	NC	NC	NC	NC	NA	NA
TPH-Oil Range Organics (ORO)	ORO	Oil Range Organics	NC	NC	NC	NC	NTV	NTV	NC	NC	NC	NC	NA	NA
PCDD/PCDFs [i]														
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562394	1,2,3,4,6,7,8-HpCDF	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822469	HpCDD	NTV	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673897	1,2,3,4,7,8,9-HpCDF	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
1,2,3,4,7,8-Hexachlorodibenzofuran	70648269	1,2,3,4,7,8-HxCDF	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227286	1,2,3,4,7,8-HxCDD	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
1,2,3,6,7,8-Hexachlorodibenzofuran	57117449	1,2,3,6,7,8-HxCDF	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653857	1,2,3,6,7,8-HxCDD	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
1,2,3,7,8,9-Hexachlorodibenzofuran	72918219	1,2,3,7,8,9-HxCDF	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408743	1,2,3,7,8,9-HxCDD	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
1,2,3,7,8-Pentachlorodibenzofuran	57117416	1,2,3,7,8-PeCDF	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321764	1,2,3,7,8-PeCDD	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
2,3,4,6,7,8-Hexachlorodibenzofuran	60851345	-	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
2,3,4,7,8-Pentachlorodibenzofuran	57117314	2,3,4,7,8-PeCDF	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
2,3,7,8-TCDD	1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
2,3,7,8-Tetrachlorodibenzofuran	51207319	2,3,7,8-TCDF	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
2,3,7,8-TCDD_TEQ_Bird	1746016-TEQ_Bird	-	NA	NA	0.000074	0.00074	0.00011	0.0011	NA	NA	0.0000057	0.000057	NA	NA
2,3,7,8-TCDD_TEQ_Fish	1746016-TEQ_Fish	-	NA	0.00000001	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2,3,7,8-TCDD_TEQ_Mammal	1746016-TEQ_Mammal	-	NA	NA	0.0000068	0.000068	NA	NA	NA	NA	0.00000050	0.0000050	NA	NA
Octachlorodibenzofuran	39001020	OCDF	NTV	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
Octachlorodibenzo-p-dioxin	3268879	-	NTV	NC	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
Polychlorinated Biphenyls (PCBs) [i]														
Aroclor 1016	12674112	-	NC	0.000014	0.95	9.5	0.0598	0.34	40	500	0.12	1.2	NA	NA

Table 12-1
Summary of the Lowest Ecological Risk-based Screening Levels by Media

Chemical	CAS#	Chemical Synonym	Water				Sediment		Soil				Soil Vapor	
					Lowest		Lowest				Lowest			
			Terrestrial Plant RBSL [g] (mg/L)	Water Column Community RBSL [g] (mg/L)	Low TRV-Based RBSL [g,h] (mg/L)	High TRV-Based RBSL [g,h] (mg/L)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Terrestrial Plants RBSL [g] (mg/kg)	Soil Invertebrates RBSL [g] (mg/kg)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Low TRV-Based RBSL [g] (mg/m^3)	High TRV-Based RBSL [g] (mg/m^3)
Aroclor 1221	11104282	-	NC	0.000014	0.95	9.5	NC	NC	NC	NC	0.18	1.8	NA	NA
Aroclor 1232	11141165	-	NC	0.000014	0.46	4.6	NC	NC	NC	NC	0.082	0.82	NA	NA
Aroclor 1242	53469219	Aroclor-1242	NC	0.000014	0.47	4.7	NC	NC	40	500	0.043	0.43	NA	NA
Aroclor 1248	12672296	-	NC	0.000014	0.068	0.68	NC	NC	40	500	0.0064	0.064	NA	NA
Aroclor 1254	11097691	-	NC	0.000014	0.46	4.6	0.0598	0.34	40	500	0.039	0.39	NA	NA
Aroclor 1260	11096825	-	NC	0.000014	0.46	4.6	NC	NC	40	500	0.025	0.25	NA	NA
Aroclor 5460	11126424	-	NC	NC	NC	NC	NC	NC	40	500	0.039	0.39	NA	NA
PCB_TEQ_Bird (Coplanar PCBs)	1746016-PCB TEQ_Bird	-	NA	NA	0.000074	0.00074	0.00011	0.0011	NA	NA	0.0000057	0.000057	NA	NA
PCB_TEQ_Fish (Coplanar PCBs)	1746016-PCB TEQ_Fish	-	NA	0.00000001	NA	NA	0.00000085	0.0000088	NA	NA	NA	NA	NA	NA
PCB_TEQ_Mammal (Coplanar PCBs)	1746016-PCB TEQ_Mammal	-	NA	NA	0.0000068	0.000068	NA	NA	NA	NA	0.00000050	0.0000050	NA	NA
PCB-105	32598144	2,3,3',4,4'-pentachloro-	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
PCB-114	74472370	PCB 114 (BZ)	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
PCB-118	31508006	-	NC	0.00000001	NA	NA	NC	NC	NTV	0.5	NA	NA	NA	NA
PCB-123	65510443	123-PeCB	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
PCB-126	57465288	-	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
PCB-156	38380084	1,1'-Biphenyl, 2,3,3',4,4',5-hexachloro-	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
PCB-157	69782907	PCB 157 (BZ)	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
PCB-167	52663726	167-HxCB	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
PCB-169	32774166	-	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
PCB-189	39635319	-	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
PCB-77	32598133	77-TeCB	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
PCB-81	70362504	81-TeCB	NC	0.00000001	NA	NA	0.00000085	0.0000088	NTV	0.5	NA	NA	NA	NA
Chemical Parameters														
Ammonia-N	7664417	Nitrogen, as Ammonia	NTV	NC	NC	NC	NC	NC	NTV	NTV	NTV	NTV	NA	NA
Chloride	16887006	-	NTV	230	NTV	NTV	NTV	NTV	NTV	NTV	NTV	NTV	NA	NA
Chlorine	7782505	-	NC	0.011	97	NTV	NC	NC	NC	NC	NC	NC	NA	NA
Nitrate	NO3N	-	NTV	NTV	3,420	7,630	NTV	NTV	NTV	NTV	2,340	5,200	NA	NA
Nitrite-NO2	E-10128	-	NC	NTV	NTV	NTV	NTV	NTV	NTV	NTV	NTV	NTV	NA	NA
Oil content	E-10140	-	NC	NTV	NTV	NTV	NC	NC	NC	NC	NC	NC	NA	NA
Orthophosphate – PO4	14265442	-	NC	NC	NC	NC	NC	NC	NTV	NTV	0.069	0.35	NA	NA
Sulfate	14808798	-	NTV	NTV	NTV	NTV	NTV	NTV	NTV	NTV	NTV	NTV	NA	NA

Notes:

[a] Chemicals detected in Groups 4 (Coca only), 6 (SRE only), 1B, 5, 10, 3 (WCT only), and 9 (Silvernale only) surface water.

[b] Chemicals detected in site wide seeps and springs.

[c] Chemicals detected in site wide near-surface groundwater.

[d] Chemicals detected in Groups 4 (Coca only), 6 (SRE only), 1B, 5, 10, 3 (WCT only), and 9 (Silvernale only) sediment.

[e] Chemicals detected in Groups 1A, 4, 6, 7, 8, 1B, 5, 10, 3 (WCT only), and 9 (Silvernale only) surface soil.

Table 12-1

Summary of the Lowest Ecological Risk-based Screening Levels by Media

Chemical	CAS#	Chemical Synonym	Water				Sediment		Soil				Soil Vapor	
					Lowest		Lowest				Lowest			
			Terrestrial Plant RBSL [g] (mg/L)	Water Column Community RBSL [g] (mg/L)	Low TRV-Based RBSL [g,h] (mg/L)	High TRV-Based RBSL [g,h] (mg/L)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Terrestrial Plants RBSL [g] (mg/kg)	Soil Invertebrates RBSL [g] (mg/kg)	Low TRV-Based RBSL [g,h] (mg/kg)	High TRV-Based RBSL [g,h] (mg/kg)	Low TRV-Based RBSL [g] (mg/m^3)	High TRV-Based RBSL [g] (mg/m^3)

[f] Chemicals detected in Groups 1A, 4, 6, 7, 8, 1B, 3, 5, 9, and 10 soil vapor.

[g] Calculated with a target hazard quotient of 1. EcoRBSLs for surface water, soil invertebrates, sediment, and terrestrial plants are equivalent to their respective medium-specific benchmarks; therefore, these EcoRBSLs were reported in the same number of significant figures as the source documents from which the benchmarks were selected. Avian and mammalian EcoRBSLs are calculated rather than derived from published values; therefore, EcoRBSLs with values less than 1,000 were reported using two significant figures and values greater than 1,000 were reported using three significant figures.

[h] Lowest Low and lowest High TRV-based RBSLs for water and soil are selected from the EcoRBSLs for upper trophic level receptors. Lowest Low and lowest High sediment RBSLs are selected as the lower of the sediment benthic community and the great blue heron sediment EcoRBSLs.

[i] As there are no toxicity equivalency factors (TEFs) available for terrestrial plants, soil invertebrates, and the sediment bethic community, no EcoRBSLs for 2,3,7,8-TCDD TEQ and PCB TEQ (Coplanar PCBs) were derived for these receptor groups. Since EcoRBSLs for 2,3,7,8-TCDD TEQ and PCB TEQ (Coplanar PCBs) only apply to mammals, birds, and fish (i.e., the water column community), individual dioxin/furan and coplanar PCB congeners are presented for evaluation of terrestrial plants, soil invertebrates, and the sediment benthic community exposed to these chemicals in applicable media.

-- Not available, or could not be located
BHC - benzene hexachloride
DDD - dichlorodiphenyldichloroethane
DDE - dichlorodiphenyldichloroethylene
DDT - dichlorodiphenyltrichloroethane
High TRV - mid level effect toxicity reference value
HMX - high melting explosive
Low TRV - no effect toxicity reference value
MCPA - 2-methyl-4-chlorophenoxyacetic acid
MCPP - meta-Chlorophenylpiperazine
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
NA - not applicable
NC - not calculated
NTV - no toxicity value
PCB - polychlorinated biphenyl
PCDD/PCDF - polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans
PETN - pentaerythritol tetranitrate
RBSL - risk-based screening level
RDX - Research Department Explosive
TCDD - Tetrachlorodibenzo-p-dioxin
TEQ - toxicity equivalent
X - Analyte was detected in the indicated medium

Appendix B-3

Responsible Party Proposed Groundwater Screening Reference Values

(Source: 2016 Annual Groundwater Monitoring Reports from Responsible Parties with various dates)

TABLE 9
GROUNDWATER REFERENCE VALUES
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Analyte Group	Chemical Analyte	Reference Value	Units	Reference Type
Radiochemistry	Antimony-125	300	pCi/L	Primary MCL [a]
Radiochemistry	Barium-133	1520	pCi/L	Primary MCL [b]
Radiochemistry	Barium-137m	2150000	pCi/L	Primary MCL [b]
Radiochemistry	Carbon-14	2000	pCi/L	Primary MCL [a]
Radiochemistry	Cesium-134	80	pCi/L	Primary MCL [a]
Radiochemistry	Cesium-137	200	pCi/L	Primary MCL [a]
Radiochemistry	Cobalt-57	1000	pCi/L	Primary MCL [a]
Radiochemistry	Cobalt-60	100	pCi/L	Primary MCL [a]
Radiochemistry	Europium-152	200	pCi/L	Primary MCL [a]
Radiochemistry	Gross alpha	15	pCi/L	Primary MCL
Radiochemistry	Gross beta	50	pCi/L	Cal MCL
Radiochemistry	Gross beta	4	mrem/yr	Primary MCL
Radiochemistry	Iodine-129	1	pCi/L	Primary MCL [a]
Radiochemistry	Manganese-54	300	pCi/L	Primary MCL [a]
Radiochemistry	Neptunium-236	5960	pCi/L	Primary MCL [b]
Radiochemistry	Niobium-94	707	pCi/L	Primary MCL [b]
Radiochemistry	Radium-226/228	5	pCi/L	Primary MCL
Radiochemistry	Sodium-22	400	pCi/L	Primary MCL [a]
Radiochemistry	Strontium-90	8	pCi/L	Primary MCL
Radiochemistry	Thulium-171	1000	pCi/L	Primary MCL [a]
Radiochemistry	Tin-126	293	pCi/L	Primary MCL [b]
Radiochemistry	Tritium	20000	pCi/L	Primary MCL
Radiochemistry	Uranium-233/234	20	pCi/L	Cal MCL
Radiochemistry	Uranium-235	20	pCi/L	Cal MCL
Radiochemistry	Uranium-238	20	pCi/L	Cal MCL
Halogenated Ethenes	1,2-Dichloroethenes	130	ug/L	SWGW RBSL
Halogenated Ethenes	Tetrachloroethene	5	ug/L	Primary MCL
Halogenated Ethenes	Trichloroethene	5	ug/L	Primary MCL
Halogenated Ethenes	cis-1,2-Dichloroethene	6	ug/L	Cal MCL
Halogenated Ethenes	trans-1,2-Dichloroethene	10	ug/L	Cal MCL
Halogenated Ethenes	1,1-Dichloroethene	6	ug/L	Cal MCL
Halogenated Ethenes	Vinyl chloride	0.5	ug/L	Cal MCL
Halogenated Ethanes	1,1,2,2-Tetrachloroethane	1	ug/L	Cal MCL
Halogenated Ethanes	1,1,2-Trichloroethane	5	ug/L	Primary MCL
Halogenated Ethanes	1,1,1-Trichloroethane	200	ug/L	Primary MCL
Halogenated Ethanes	1,2-Dichloroethane	0.5	ug/L	Cal MCL
Halogenated Ethanes	1,1-Dichloroethane	5	ug/L	Cal MCL
Halogenated Ethanes	Chloroethane	16	ug/L	Taste/Odor
Halogenated Ethanes	1,2-Dibromoethane	0.05	ug/L	Primary MCL
Halogenated Ethanes	1,1,2-Trichloro-1,2,2-trifluoroethane	1200	ug/L	Cal MCL
Halogenated Ethanes	1,2-Dichloro-1,1,2-trifluoroethane	190000	ug/L	SWGW RBSL
Halogenated Ethanes	2,2-Dichloro-1,1,1-trifluoroethane	190000	ug/L	SWGW RBSL
Halogenated Methanes	Carbon Tetrachloride	0.5	ug/L	Cal MCL
Halogenated Methanes	Chloroform	80	ug/L	Primary MCL
Halogenated Methanes	Methylene chloride	5	ug/L	Primary MCL
Halogenated Methanes	Chloromethane	5.7	ug/L	SWGW RBSL
Halogenated Methanes	Trichlorofluoromethane	150	ug/L	Cal MCL
Halogenated Methanes	Dichlorodifluoromethane	1000	ug/L	Notification Level
Halogenated Methanes	Bromochloromethane	34000	ug/L	Taste/Odor
Halogenated Methanes	Bromodichloromethane	80	ug/L	Primary MCL
Halogenated Methanes	Bromoform	80	ug/L	Primary MCL
Halogenated Methanes	Bromomethane	8.8	ug/L	SWGW RBSL
Halogenated Methanes	Dibromochloromethane	80	ug/L	Primary MCL

TABLE 9
GROUNDWATER REFERENCE VALUES
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Analyte Group	Chemical Analyte	Reference Value	Units	Reference Type
Non-Halogenated VOCs	2-Heptanone	280	ug/L	Taste/Odor
Non-Halogenated VOCs	Benzyl chloride	12	ug/L	Taste/Odor
Non-Halogenated VOCs	Cumene (Isopropylbenzene)	770	ug/L	Notification Level
Non-Halogenated VOCs	Ethanol	760000	ug/L	Taste/Odor
Non-Halogenated VOCs	Ethyl acetate	2600	ug/L	Taste/Odor
Non-Halogenated VOCs	Ethyl ether	750	ug/L	Taste/Odor
Non-Halogenated VOCs	Methanol	740000	ug/L	Taste/Odor
Non-Halogenated VOCs	m-Xylene & p-Xylene	1750	ug/L	Cal MCL
Non-Halogenated VOCs	n-Hexane	6.4	ug/L	Taste/Odor
Non-Halogenated VOCs	Pentanal	17	ug/L	Taste/Odor
Non-Halogenated VOCs	sec-Butyl alcohol	19000	ug/L	Taste/Odor
Non-Halogenated VOCs	tert-Butyl alcohol	12	ug/L	Notification Level
Non-Halogenated VOCs	1,3,5-Trimethylbenzene	330	ug/L	Notification Level
Non-Halogenated VOCs	1,2,4-Trimethylbenzene	330	ug/L	Notification Level
Non-Halogenated VOCs	2-Hexanone	250	ug/L	Taste/Odor
Non-Halogenated VOCs	Acetone	20000	ug/L	Taste/Odor
Non-Halogenated VOCs	Acetonitrile	300000	ug/L	Taste/Odor
Non-Halogenated VOCs	Acrolein	110	ug/L	Taste/Odor
Non-Halogenated VOCs	Acrylonitrile	910	ug/L	Taste/Odor
Non-Halogenated VOCs	Benzene	1	ug/L	Cal MCL
Non-Halogenated VOCs	Carbon Disulfide	160	ug/L	Notification Level
Non-Halogenated VOCs	Ethane	7500	ug/L	Taste/Odor
Non-Halogenated VOCs	Ethylbenzene	300	ug/L	Cal MCL
Non-Halogenated VOCs	Ethylene	39	ug/L	Taste/Odor
Non-Halogenated VOCs	Isopropanol	160000	ug/L	Taste/Odor
Non-Halogenated VOCs	m-Xylene	1750	ug/L	Cal MCL
Non-Halogenated VOCs	Methacrylonitrile	2100	ug/L	Taste/Odor
Non-Halogenated VOCs	Methane	3100	ug/L	SWGW RBSL
Non-Halogenated VOCs	Methyl ethyl ketone	3800	ug/L	SWGW RBSL
Non-Halogenated VOCs	Methyl isobutyl ketone (MIBK)	120	ug/L	Notification Level
Non-Halogenated VOCs	Methyl methacrylate	25	ug/L	Taste/Odor
Non-Halogenated VOCs	Methyl tert-butyl ether	5	ug/L	Secondary MCL
Non-Halogenated VOCs	n-Butylbenzene	260	ug/L	Notification Level
Non-Halogenated VOCs	n-Propylbenzene	260	ug/L	Notification Level
Non-Halogenated VOCs	o + p Xylene	1750	ug/L	Cal MCL
Non-Halogenated VOCs	o-Xylene	1750	ug/L	Cal MCL
Non-Halogenated VOCs	sec-Butylbenzene	260	ug/L	Notification Level
Non-Halogenated VOCs	Styrene	100	ug/L	Primary MCL
Non-Halogenated VOCs	tert-Butylbenzene	260	ug/L	Notification Level
Non-Halogenated VOCs	Toluene	150	ug/L	Cal MCL
Non-Halogenated VOCs	Vinyl acetate	88	ug/L	Taste/Odor
Non-Halogenated VOCs	Xylenes, Total	1750	ug/L	Cal MCL
Halogenated Benzenes	1,2,3-Trichlorobenzene	2.1	ug/L	SWGW RBSL
Halogenated Benzenes	1,2,4-Trichlorobenzene	5	ug/L	Cal MCL
Halogenated Benzenes	1,2-Dichlorobenzene	600	ug/L	Primary MCL
Halogenated Benzenes	1,3-Dichlorobenzene	600	ug/L	Archived Advisory Level
Halogenated Benzenes	1,4-Dichlorobenzene	5	ug/L	Cal MCL
Halogenated Benzenes	Chlorobenzene	70	ug/L	Cal MCL
Halogenated Propene/Propanes	1,2,3-Trichloropropane	0.005	ug/L	Notification Level
Halogenated Propene/Propanes	1,2-Dibromo-3-chloropropane	0.2	ug/L	Primary MCL
Halogenated Propene/Propanes	1,2-Dichloropropane	5	ug/L	Primary MCL
Halogenated Propene/Propanes	1,3-Dichloropropane	130	ug/L	SWGW RBSL
Halogenated Propene/Propanes	1,3-Dichloropropene	0.5	ug/L	Cal MCL

TABLE 9
GROUNDWATER REFERENCE VALUES
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Analyte Group	Chemical Analyte	Reference Value	Units	Reference Type
Halogenated Propene/Propanes	Allyl chloride	8.9	ug/L	Taste/Odor
Halogenated Propene/Propanes	cis-1,3-Dichloropropene	0.5	ug/L	Cal MCL
Halogenated Propene/Propanes	trans-1,3-Dichloropropene	0.81	ug/L	SWGW RBSL
Other Halogenated VOCs	o-Chlorotoluene	140	ug/L	Notification Level
Other Halogenated VOCs	p-Chlorotoluene	140	ug/L	Notification Level
1,4-Dioxane	1,4-Dioxane	1	ug/L	Notification Level
SVOC	Diphenyl ether	630	ug/L	SWGW RBSL
SVOC	p-Cresol	63	ug/L	SWGW RBSL
SVOC	p-Dinitrobenzene	1.3	ug/L	SWGW RBSL
SVOC	Diazinon	1.2	ug/L	Notification Level
SVOC	Diethyl phthalate	10000	ug/L	SWGW RBSL
SVOC	Ethylene glycol	14000	ug/L	Notification Level
SVOC	Formaldehyde	100	ug/L	Notification Level
SVOC	Hydrazine	160000	ug/L	Taste/Odor
SVOC	m-Cresol	37	ug/L	Taste/Odor
SVOC	o-Cresol	630	ug/L	SWGW RBSL
SVOC	1,3-Dinitrobenzene	1.3	ug/L	SWGW RBSL
SVOC	2,4,6-Trichlorophenol	2.1	ug/L	SWGW RBSL
SVOC	2,4-Dimethylphenol	100	ug/L	Archived Advisory Level
SVOC	2,6-Dinitrotoluene	0.22	ug/L	SWGW RBSL
SVOC	2-Chlorophenol	63	ug/L	SWGW RBSL
SVOC	3,3'-Dichlorobenzidine	0.12	ug/L	SWGW RBSL
SVOC	4,6-Dinitro-o-cresol	1.3	ug/L	SWGW RBSL
SVOC	Aniline	65000	ug/L	Taste/Odor
SVOC	Benzidine	0.0003	ug/L	SWGW RBSL
SVOC	Benzoic acid	50000	ug/L	SWGW RBSL
SVOC	bis(2-Chloroethoxy)methane	38	ug/L	SWGW RBSL
SVOC	bis(2-Chloroethyl) ether	360	ug/L	Taste/Odor
SVOC	bis(2-Ethylhexyl) phthalate	4	ug/L	Cal MCL
SVOC	Butyl benzyl phthalate	78	ug/L	SWGW RBSL
SVOC	Di-n-butyl phthalate	1300	ug/L	SWGW RBSL
SVOC	Di-n-octyl phthalate	500	ug/L	SWGW RBSL
SVOC	Dimethyl phthalate	130000	ug/L	SWGW RBSL
SVOC	Hexachlorobenzene	1	ug/L	Primary MCL
SVOC	Hexachlorocyclopentadiene	50	ug/L	Primary MCL
SVOC	Hexachloroethane	10	ug/L	Taste/Odor
SVOC	Isophorone	5400	ug/L	Taste/Odor
SVOC	n-Nitrosodi-n-propylamine	0.01	ug/L	Notification Level
SVOC	n-Nitrosodiethylamine	0.01	ug/L	Notification Level
SVOC	n-Nitrosodiphenylamine	16	ug/L	SWGW RBSL
SVOC	Nitrobenzene	110	ug/L	Taste/Odor
SVOC	o-Toluidine	11000	ug/L	Taste/Odor
SVOC	Pentachloronitrobenzene	20	ug/L	Archived Advisory Level
SVOC	Pentachlorophenol	1	ug/L	Primary MCL
SVOC	Phenol	4200	ug/L	Archived Advisory Level
SVOC	Pyridine	950	ug/L	Taste/Odor
PAH	1-Methyl naphthalene	2.6	ug/L	SWGW RBSL
PAH	2-Methylnaphthalene	50	ug/L	SWGW RBSL
PAH	Acenaphthene	380	ug/L	SWGW RBSL
PAH	Acenaphthylene	380	ug/L	SWGW RBSL
PAH	Anthracene	3800	ug/L	SWGW RBSL
PAH	Benzo(a)pyrene	0.2	ug/L	Primary MCL
PAH	Fluoranthene	250	ug/L	SWGW RBSL

TABLE 9
GROUNDWATER REFERENCE VALUES
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Analyte Group	Chemical Analyte	Reference Value	Units	Reference Type
PAH	Fluorene	250	ug/L	SWGW RBSL
PAH	Naphthalene	17	ug/L	Notification Level
PAH	Phenanthrene	3800	ug/L	SWGW RBSL
PAH	Pyrene	380	ug/L	SWGW RBSL
NDMA	n-Nitrosodimethylamine	0.01	ug/L	Notification Level
Energetics	Perchlorate	6	ug/L	Cal MCL
Energetics	2,4,6-Trinitrotoluene	1	ug/L	Notification Level
Energetics	HMX	350	ug/L	Notification Level
Energetics	RDX	0.3	ug/L	Notification Level
TPH	Fuel Hydrocarbons, C4-C12, as heavy Hydrocarbons	500	ug/L	SWGW RBSL
TPH	Fuel Hydrocarbons, C6-C14, as JP-4	1800	ug/L	SWGW RBSL
TPH	Fuel Hydrocarbons, C6-C15, as JP-4	1800	ug/L	SWGW RBSL
TPH	Fuel Hydrocarbons, C6-C16, as JP-4	1800	ug/L	SWGW RBSL
TPH	Fuel Hydrocarbons, C6-C16, C21-C24, as JP-4	1800	ug/L	SWGW RBSL
TPH	Fuel Hydrocarbons, C6-C7	500	ug/L	SWGW RBSL
TPH	Fuel Hydrocarbons, C7-C10, as gasoline	5	ug/L	Taste/Odor
TPH	Fuel Hydrocarbons, C7-C14, as JP-4	1800	ug/L	SWGW RBSL
TPH	Fuel Hydrocarbons, C7-C16, as JP-4	1800	ug/L	SWGW RBSL
TPH	Fuel Hydrocarbons, C8-C10, as gasoline	5	ug/L	Taste/Odor
TPH	Fuel Hydrocarbons, C8-C12, as heavy Hydrocarbons	1800	ug/L	SWGW RBSL
TPH	Fuel Hydrocarbons, C8-C14, as heavy Hydrocarbons	1800	ug/L	SWGW RBSL
TPH	Gasoline Range Organics (C4-C12)	5	ug/L	Taste/Odor
TPH	Gasoline Range Organics (C6-C14)	5	ug/L	Taste/Odor
TPH	Gasoline Range Organics (C7-C12)	5	ug/L	Taste/Odor
TPH	Diesel Range Organics	100	ug/L	Taste/Odor
TPH	Diesel Range Organics (C12-C14)	100	ug/L	Taste/Odor
TPH	Diesel Range Organics (C13-C22)	100	ug/L	Taste/Odor
TPH	Diesel Range Organics (C14-C20)	100	ug/L	Taste/Odor
TPH	Diesel Range Organics (C15-C20)	100	ug/L	Taste/Odor
TPH	Diesel Range Organics (C20-C30)	100	ug/L	Taste/Odor
TPH	Diesel Range Organics (C21-C24)	100	ug/L	Taste/Odor
TPH	Diesel Range Organics (C21-C30)	100	ug/L	Taste/Odor
TPH	Diesel Range Organics (C8-C11)	100	ug/L	Taste/Odor
TPH	Diesel Range Organics (C8-C30)	100	ug/L	Taste/Odor
TPH	Fuel Hydrocarbons, C6-C17, as JP-4	1800	ug/L	SWGW RBSL
TPH	Gasoline Range Organics (C8-C11)	1800	ug/L	SWGW RBSL
TPH	Jet Fuel 4 (C6-C13)	1800	ug/L	SWGW RBSL
TPH	Kerosene (C10-C12)	1800	ug/L	SWGW RBSL
TPH	Kerosene (C10-C14)	1800	ug/L	SWGW RBSL
TPH	Kerosene Range Organics (C11-C14)	1800	ug/L	SWGW RBSL
TPH	Total Petroleum Hydrocarbons (as Kerosene)	1800	ug/L	SWGW RBSL
TPH	Gasoline Range Organics	5	ug/L	Taste/Odor
TPH	Gasoline Range Organics (C6-C12)	5	ug/L	Taste/Odor
PCB	Aroclor 1016	0.5	ug/L	Primary MCL
PCB	Polychlorinated biphenyls	0.5	ug/L	Primary MCL
PCB	Aroclor 1254	0.5	ug/L	Primary MCL
PCB	Aroclor 1260	0.5	ug/L	Primary MCL
PCB	Aroclor 1221	0.5	ug/L	Primary MCL
PCB	Aroclor 1232	0.5	ug/L	Primary MCL
PCB	Aroclor 1242	0.5	ug/L	Primary MCL
PCB	Aroclor 1248	0.5	ug/L	Primary MCL
Herbicides	2,4,5-Trichlorophenoxypropionic acid (Silvex)	50	ug/L	Cal MCL
Herbicides	2,4-Dichlorophenoxyacetic Acid (2,4-D)	130	ug/L	SWGW RBSL

TABLE 9
GROUNDWATER REFERENCE VALUES
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Analyte Group	Chemical Analyte	Reference Value	Units	Reference Type
Herbicides	2,4,5-T	130	ug/L	SWGW RBSL
Herbicides	Dalapon	200	ug/L	Cal MCL
Herbicides	Dinoseb	7	ug/L	Primary MCL
Herbicides	Propachlor	90	ug/L	Notification Level
Pesticides	Kepone	0.0093	ug/L	SWGW RBSL
Pesticides	Endosulfan I	75	ug/L	SWGW RBSL
Pesticides	Endosulfan II	75	ug/L	SWGW RBSL
Pesticides	gamma-BHC	0.2	ug/L	Primary MCL
Pesticides	Methyl parathion	2	ug/L	Archived Advisory Level
Pesticides	p,p'-Methoxychlor	30	ug/L	Cal MCL
Pesticides	Parathion	40	ug/L	Archived Advisory Level
Pesticides	Endosulfan sulfate	75	ug/L	SWGW RBSL
Pesticides	4,4'-DDE	0.44	ug/L	SWGW RBSL
Pesticides	Aldrin	0.002	ug/L	Archived Advisory Level
Pesticides	alpha-BHC	0.015	ug/L	Archived Advisory Level
Pesticides	beta-BHC	0.025	ug/L	Archived Advisory Level
Pesticides	Chlordane	0.1	ug/L	Cal MCL
Pesticides	Dieldrin	0.002	ug/L	Archived Advisory Level
Pesticides	Dimethoate	1	ug/L	Archived Advisory Level
Pesticides	4,4'-DDD	0.62	ug/L	SWGW RBSL
Pesticides	Toxaphene	3	ug/L	Primary MCL
Pesticides	Endrin	2	ug/L	Primary MCL
Pesticides	Heptachlor	0.01	ug/L	Cal MCL
Pesticides	Heptachlor epoxide	0.01	ug/L	Cal MCL
Dioxins/Furans	2,3,7,8-TCDD	0.00003	ug/L	Primary MCL
Metals	Aluminum, Dissolved	13000	ug/L	SWGW RBSL
Metals	Boron, Dissolved	340	ug/L	SSFL Comparison
Metals	Tin, Dissolved	2.4	ug/L	SSFL Comparison
Metals	Antimony, Dissolved	2.5	ug/L	SSFL Comparison
Metals	Arsenic, Dissolved	7.7	ug/L	SSFL Comparison
Metals	Barium, Dissolved	150	ug/L	SSFL Comparison
Metals	Beryllium, Dissolved	0.14	ug/L	SSFL Comparison
Metals	Cadmium, Dissolved	0.2	ug/L	SSFL Comparison
Metals	Chromium, Dissolved	14	ug/L	SSFL Comparison
Metals	Cobalt, Dissolved	1.9	ug/L	SSFL Comparison
Metals	Copper, Dissolved	4.7	ug/L	SSFL Comparison
Metals	Hexavalent Chromium, Dissolved	10	ug/L	Cal MCL
Metals	Iron, Dissolved	4100	ug/L	SSFL Comparison
Metals	Lead, Dissolved	11	ug/L	SSFL Comparison
Metals	Magnesium, Dissolved	77000	ug/L	SSFL Comparison
Metals	Manganese, Dissolved	150	ug/L	SSFL Comparison
Metals	Mercury, Dissolved	0.063	ug/L	SSFL Comparison
Metals	Molybdenum, Dissolved	2.2	ug/L	SSFL Comparison
Metals	Nickel, Dissolved	17	ug/L	SSFL Comparison
Metals	Potassium, Dissolved	9600	ug/L	SSFL Comparison
Metals	Selenium, Dissolved	1.6	ug/L	SSFL Comparison
Metals	Silver, Dissolved	0.17	ug/L	SSFL Comparison
Metals	Sodium, Dissolved	190000	ug/L	SSFL Comparison
Metals	Strontium, Dissolved	800	ug/L	SSFL Comparison
Metals	Thallium, Dissolved	0.13	ug/L	SSFL Comparison
Metals	Vanadium, Dissolved	2.6	ug/L	SSFL Comparison
Metals	Zinc, Dissolved	6300	ug/L	SSFL Comparison
Metals	Aluminum	200	ug/L	Secondary MCL

TABLE 9
GROUNDWATER REFERENCE VALUES
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

Analyte Group	Chemical Analyte	Reference Value	Units	Reference Type
Metals	Antimony	2.5	ug/L	SSFL Comparison
Metals	Arsenic	7.7	ug/L	SSFL Comparison
Metals	Barium	150	ug/L	SSFL Comparison
Metals	Beryllium	0.14	ug/L	SSFL Comparison
Metals	Boron	340	ug/L	SSFL Comparison
Metals	Cadmium	0.2	ug/L	SSFL Comparison
Metals	Chromium	14	ug/L	SSFL Comparison
Metals	Cobalt	1.9	ug/L	SSFL Comparison
Metals	Copper	4.7	ug/L	SSFL Comparison
Metals	Hexavalent Chromium	10	ug/L	Cal MCL
Metals	Iron	4100	ug/L	SSFL Comparison
Metals	Lead	11	ug/L	SSFL Comparison
Metals	Magnesium	77000	ug/L	SSFL Comparison
Metals	Manganese	150	ug/L	SSFL Comparison
Metals	Mercury	0.063	ug/L	SSFL Comparison
Metals	Molybdenum	2.2	ug/L	SSFL Comparison
Metals	Nickel	17	ug/L	SSFL Comparison
Metals	Potassium	9600	ug/L	SSFL Comparison
Metals	Selenium	1.6	ug/L	SSFL Comparison
Metals	Silver	0.17	ug/L	SSFL Comparison
Metals	Sodium	190000	ug/L	SSFL Comparison
Metals	Strontium	800	ug/L	SSFL Comparison
Metals	Thallium	0.13	ug/L	SSFL Comparison
Metals	Tin	2.4	ug/L	SSFL Comparison
Metals	Vanadium	2.6	ug/L	SSFL Comparison
Metals	Zinc	6300	ug/L	SSFL Comparison
Inorganics	Chlorine	4000	ug/L	Primary MCL
Inorganics	Nitrate-NO3	45000	ug/L	Cal MCL
Inorganics	Nitrite-NO2	3284	ug/L	Primary MCL [c]
Inorganics	Ammonia-N	30000	ug/L	Taste/Odor
Inorganics	Chloride	250000	ug/L	Secondary MCL
Inorganics	Chlorate	0.8	ug/L	Notification Level
Inorganics	Cyanides	150	ug/L	Cal MCL
Inorganics	Fluoride	800	ug/L	SSFL Comparison
Inorganics	Nitrate-N	10000	ug/L	Cal MCL
Inorganics	Nitrite-N	1000	ug/L	Primary MCL
Inorganics	Sulfate	376000	ug/L	SSFL Comparison
Inorganics	Total Dissolved Solids	500000	ug/L	Recommended SMCL
Inorganics	Total Dissolved Solids	1000000	ug/L	Upper SMCL
Inorganics	Total Dissolved Solids	1500000	ug/L	Short-Term SMCL
General Parameters	Formic Acid	1700000	ug/L	Taste/Odor
General Parameters	Turbidity	5	NTU	Secondary MCL
General Parameters	Specific conductivity	900	umhos/cm	Recommended SMCL
General Parameters	Specific conductivity	1600	umhos/cm	Upper SMCL
General Parameters	Specific conductivity	2200	umhos/cm	Short-Term SMCL

TABLE 9
GROUNDWATER REFERENCE VALUES
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

NOTES AND ABBREVIATIONS

These values are presented only to provide general context for reported concentrations in groundwater and are not site-specific approved values for remediation/cleanup decisions.

(a) - isotope-specific MCL for beta emitters based on Primary MCL of 4 mrem/yr critical organ dose limit for gross beta (EPA, 2000)
(b) - isotope-specific MCL for beta emitters based on the 4 mrem/yr effective dose equivalent for gross beta (EPA, 2000)
(c) - conversion from Primary MCL for Nitrite-N

VOCs - volatile organic compounds	Primary MCL - Primary Maximum Contaminant Level	ug/L - micrograms per liter
SVOC - semi volatile organic compound	Cal MCL - California Primary Maximum Contaminant Level	pCi/L - picocuries per liter
PAH - polycyclic aromatic hydrocarbon	Secondary MCL - Secondary Maximum Contaminant Level	mrem/yr - millirem per year
NDMA - n-Nitrosodimethylamine	SMCL - Secondary Maximum Contaminant Level	NTU - nephelometric turbidity units
TPH - total petroleum hydrocarbons	Taste/Odor - Taste/Odor Threshold	umhos/cm - micromhos per centimeter
PCB - polychlorinated biphenyl	SSFL Comparison - site-specific values for metals developed by DTSC	
	SWGW RBSL - Site-Wide Groundwater Risk-Based Screening Level developed using process defined in GW RI Report (MWH, 2009)	

Appendix B-4

Preliminary Chemical Lookup Table Values

(Source: Chemical Look-Up Table Technical Memorandum, Santa Susana Field Laboratory, Ventura County, California, dated June 11, 2013)

Draft Chemical Look-Up Table for DOE NASA at SSFL

June 2013

Chemical Constituent	Units	Look-Up Table Value	Basis
Alcohols - EPA Method 8015B			
Ethanol	mg/kg	0.7	BG MRL
Methanol	mg/kg	0.7	BG MRL
Anions - EPA Methods 300.0 / 9056A			
Fluoride	mg/kg	10.2	BTV
Nitrate	mg/kg	22.3	BTV
Cyanide - EPA Method 9012A			
Cyanide	mg/kg	0.6	BG MRL
Dioxin-Furans - EPA Method 1613B			
1,2,3,4,6,7,8-HpCDD	pg/g	see note[1]	---
1,2,3,4,6,7,8-HpCDF	pg/g	see note[1]	---
1,2,3,4,7,8,9-HpCDF	pg/g	see note[1]	---
1,2,3,4,7,8-HxCDD	pg/g	see note[1]	---
1,2,3,4,7,8-HxCDF	pg/g	see note[1]	---
1,2,3,6,7,8-HxCDD	pg/g	see note[1]	---
1,2,3,6,7,8-HxCDF	pg/g	see note[1]	---
1,2,3,7,8,9-HxCDD	pg/g	see note[1]	---
1,2,3,7,8,9-HxCDF	pg/g	see note[1]	---
1,2,3,7,8-PeCDD	pg/g	see note[1]	---
1,2,3,7,8-PeCDF	pg/g	see note[1]	---
2,3,4,6,7,8-HxCDF	pg/g	see note[1]	---
2,3,4,7,8-PeCDF	pg/g	see note[1]	---
2,3,7,8-TCDD	pg/g	see note[1]	---
2,3,7,8-TCDF	pg/g	see note[1]	---
OCDD	pg/g	see note[1]	---
OCDF	pg/g	see note[1]	---
2,3,7,8-TCDD TEQ			
2,3,7,8-TCDD TEQ[1]	pg/g	0.912 (see note[1])	BTV-TEQ
Energetics - EPA Method 8330			
RDX	µg/kg	300	M-L MRL
Formaldehyde - EPA Method 8315A			
Formaldehyde	µg/kg	1,870	BG MRL

Chemical Constituent	Units	Look-Up Table Value	Basis
Herbicides - EPA Method 8151A			
2,4,5-T	µg/kg	1.2	BTV
2,4,5-TP	µg/kg	0.63	BTV
2,4-D	µg/kg	5.8	BTV
2,4-DB	µg/kg	2.4	BG MRL
2,4-DP (Dichloroprop)	µg/kg	2.4	BTV
Dalapon	µg/kg	12.5	BG MRL
Dicamba	µg/kg	1.3	BTV
Dinoseb	µg/kg	3.3	BG MRL
MCPA	µg/kg	761	BTV
MCPP (Mecoprop)	µg/kg	377	BTV
Pentachlorophenol	µg/kg	170	M-L MRL
Metals - EPA Methods 6010B/6020A			
Aluminum	mg/kg	58,600	BTV
Antimony	mg/kg	0.86	BTV
Arsenic	mg/kg	46	BTV
Barium	mg/kg	371	BTV
Beryllium	mg/kg	2.2	BTV
Boron	mg/kg	34	BTV
Cadmium	mg/kg	0.7	BTV
Chromium	mg/kg	94	BTV
Cobalt	mg/kg	44	BTV
Copper	mg/kg	119	BTV
Lead	mg/kg	49	BTV
Lithium	mg/kg	91	BTV
Manganese	mg/kg	1,120	BTV
Molybdenum	mg/kg	3.2	BTV
Nickel	mg/kg	132	BTV
Potassium	mg/kg	14,400	BTV
Selenium	mg/kg	1	BTV
Silver	mg/kg	0.2	BTV
Sodium	mg/kg	1,780	BTV
Strontium	mg/kg	163	BTV
Thallium	mg/kg	1.2	BTV
Vanadium	mg/kg	175	BTV
Zinc	mg/kg	215	BTV
Zirconium	mg/kg	19	BTV
Hexavalent Chromium - EPA Methods 7199/7196A			
Hexavalent Chromium	mg/kg	2	BTV
Mercury - EPA Methods 7471A/7470A			
Mercury	mg/kg	0.13	BG MRL
Methyl Mercury - EPA Method 1630 (Mod)			
Methyl Mercury	µg/kg	0.05	M-L MRL

Chemical Constituent	Units	Look-Up Table Value	Basis
PCBs / PCTs - EPA Method 8082			
Aroclor 1016	µg/kg	17	M-L MRL
Aroclor 1221	µg/kg	33	M-L MRL
Aroclor 1232	µg/kg	17	M-L MRL
Aroclor 1262	µg/kg	33	M-L MRL
Aroclor 1254	µg/kg	17	M-L MRL
Aroclor 1260	µg/kg	17	M-L MRL
Aroclor 1268	µg/kg	33	M-L MRL
Aroclor 1242	µg/kg	17	M-L MRL
Aroclor 1248	µg/kg	17	M-L MRL
Aroclor 5432	µg/kg	50	M-L MRL
Aroclor 5442	µg/kg	50	M-L MRL
Aroclor 5460	µg/kg	50	M-L MRL
Perchlorate - EPA Methods 6850/6860			
Perchlorate	µg/kg	1.63	BTV
Pesticides - EPA Method 8081A			
Aldrin	µg/kg	0.24	BG MRL
Alpha-BHC	µg/kg	0.24	BG MRL
Beta-BHC	µg/kg	0.23	BTV
Chlordane	µg/kg	7	BTV
Delta-BHC	µg/kg	0.22	BTV
Dieldrin	µg/kg	0.48	BG MRL
Endosulfan I	µg/kg	0.24	BG MRL
Endosulfan II	µg/kg	0.48	BG MRL
Endosulfan Sulfate	µg/kg	0.48	BG MRL
Endrin	µg/kg	0.48	BG MRL
Endrin Aldehyde	µg/kg	0.7	BTV
Endrin Ketone	µg/kg	0.7	BTV
Gamma-BHC - Lindane	µg/kg	0.24	BG MRL
Heptachlor	µg/kg	0.24	BG MRL
Heptachlor Epoxide	µg/kg	0.24	BG MRL
Methoxychlor	µg/kg	2.4	BG MRL
Mirex	µg/kg	0.5	BTV
p,p-DDD	µg/kg	0.48	BG MRL
p,p-DDE	µg/kg	8.6	BTV
p,p-DDT	µg/kg	13	BTV
Toxaphene	µg/kg	8.8	BG MRL

Chemical Constituent	Units	Look-Up Table Value	Basis
Semi-Volatiles (SVOCs)/PAHs - EPA Method 8270C(SIM)			
Acenaphthylene	µg/kg	2.5	BG MRL
Anthracene	µg/kg	2.5	BG MRL
Benzo(a)anthracene	µg/kg	see note [2]	---
Benzo(a)pyrene	µg/kg	see note [2]	---
Benzo(b)fluoranthene	µg/kg	see note [2]	---
Benzo(g,h,i)perylene	µg/kg	2.5	BG MRL
Benzo(k)fluoranthene	µg/kg	see note [2]	---
Bis(2-Ethylhexyl)phthalate	µg/kg	61	BTV
Butylbenzylphthalate	µg/kg	100	BTV
Chrysene	µg/kg	see note [2]	---
Dibenz(a,h)anthracene	µg/kg	see note [2]	---
Diethyl phthalate	µg/kg	27	BG MRL
Dimethyl phthalate	µg/kg	27	BG MRL
Di-n-butylphthalate	µg/kg	27	BG MRL
Di-n-octylphthalate	µg/kg	27	BG MRL
Fluoranthene	µg/kg	5.2	BTV
Fluorene	µg/kg	3.8	BTV
Indeno(1,2,3-cd)pyrene	µg/kg	see note [2]	---
Naphthalene	µg/kg	3.6	BTV
Phenanthrene	µg/kg	3.9	BTV
Pyrene	µg/kg	5.6	BTV
1-Methyl naphthalene	µg/kg	2.5	BG MRL
2-Methylnaphthalene	µg/kg	2.5	BG MRL
Acenaphthene	µg/kg	2.5	BG MRL
Benzo(a)pyrene Equivalent			
Benzo(a)pyrene TEQ[2]	µg/kg	4.47 (see note[2])	BTV-TEQ
Other SVOCs			
Benzoic Acid - EPA 8270	µg/kg	660	M-L MRL
N-Nitrosodimethylamine - 8270C(SIM)	µg/kg	10	M-L MRL
Phenol - EPA 8270	µg/kg	170	M-L MRL
TPH - EPA Method 8015			
TPH EFH (C15-C20)[3]	mg/kg	5 (see note[3])	M-L MRL
Terphenyls - EPA Method 8015			
o-Terphenyl	mg/kg	7	M-L MRL

Chemical Constituent	Units	Look-Up Table Value	Basis
VOCs - EPA Method 8260			
1,1-Dichloroethene	µg/kg	5	M-L MRL
1,4-Dioxane - EPA 8260 (SIM)	µg/kg	10	M-L MRL
2-Hexanone	µg/kg	10	M-L MRL
Acetone	µg/kg	20	M-L MRL
Benzene	µg/kg	5	M-L MRL
cis-1,2-Dichloroethene	µg/kg	5	M-L MRL
Ethylbenzene	µg/kg	5	M-L MRL
Hexachlorobutadiene	µg/kg	5	M-L MRL
Methylene chloride	µg/kg	10	M-L MRL
Tetrachloroethene	µg/kg	5	M-L MRL
Toluene	µg/kg	5	M-L MRL
Trichloroethene	µg/kg	5	M-L MRL
Vinyl chloride	µg/kg	5	M-L MRL

Notes:
mg/kg: milligrams per kilogram (parts per million)
µg/kg: micrograms per kilogram (parts per billion)
pg/g: picograms per gram (parts per trillion)
BTV: Background threshold value
BG-MRL: Background method reporting limit
M-L MRL: Multi-Lab method reporting limit
PAH: Polyaromatic hydrocarbon
PCB: Polychlorinated biphenyl
PCT: Polychlorinated terphenyl
RDX: Research Department Explosive
SIM: Selective ion monitoring
SVOC: Semi-volatile organic compound
TEQ: Toxicity equivalency
TPH EFH: Total petroleum hydrocarbon - extractable fuel hydrocarbon
VOC: Volatile organic compound

[1] DTSC applied the World Health Organization's 2,3,7,8-TCDD toxicity equivalence approach for dixoin-furans. To evaluate 2,3,7,8-TCDD equivalence, dixoin-furans need to meet respective background study MRLs.

[2] Benzo(a)pyrene equivalence developed based on sum of carcinogenic PAHs. In order to evaluate Benzo(a)pyrene equivalence, carcinogenic PAHs need to meet respective background study MRLs.

[3] For locations where TPH is the sole contaminant, a cleanup strategy will be considered based on the findings of soil treatability study.

Appendix B-5

Draft Provisional Radiological Lookup Table Values

(Source: SSFL Document Library accessed on March 30, 2017
http://www.dtsc.ca.gov/SiteCleanup/Santa_Susana_Field_Lab/ssfl_document_library.cfm)

Draft Provisional Radiological Look-Up Table Values

				Provisional Look-Up Table Values		
Radionuclide	BTV	Provisional Look-Up Table Basis		EPA Lab A		EPA Lab B*
Am-241	0.0162	MDC		0.0815		0.039
Co-60	0.00556	MDC		0.04		0.0363
Cs-137	0.193	BTV		0.225		0.225
Eu-152	0.0169	MDC		0.105		0.0739
Eu-154	0.0251	MDC		0.217		0.198
Eu-155	0.198	MDC		0.253		0.231
Ni-59	0.344	MDC		10.9		0.875
Pu-238	0.00425	MDC		0.122		0.0254
Pu-239/240	0.0142	MDC		0.115		0.023
Sr-90	0.075	MDC		1.02		0.117
Th-228	3.67	BTV		4.27		4.27
Th-230	2.04	BTV		2.38		2.38
Th-232	2.95	BTV		3.44		3.44
U-233/234	1.87	BTV		2.18		2.18
U-235	0.13	MDC		0.249		0.152
U-238	1.68	BTV		1.96		1.96
Values in pCi/g						
Jan-30-2013						

* For the draft Provisional Look-Up Table values DTSC will apply the values from Lab B