APPENDIX G

COPEC DETAILED SCREENING

Table G-1. COPEC Screening Table for Chemicals Detected at the Ballfields Parcels

Analytes	Sample ID	Location Code	Max Conc. (mg/kg)	Background Concentration (mg/kg)	Benchmark (mg/kg)	Benchmark Source	Receptor Group	Bioaccumulative?	Retain as COPEC?	Reason Code[a]
Antimony	TO63R4SB0200.5	R4	0.67	0.37	0.27	Eco-SSL	mammal	N	Y	2
Arsenic	TO63R2SB020.0.5	R2	12.3	16.7	18	Eco-SSL	plant	Y	N	1,4
Barium	TO63R1SB0400.5	R1	275	189.9	330	Eco-SSL	invert	N	N	4
Beryllium	TO63R3SB0300.5	R3	1.1	1.03	21	Eco-SSL	mammal	N	N	4
Cadmium	TO63R4SB0300.5	R4	1.4	0.64	0.36	Eco-SSL	mammal	Y	Y	2
Chromium	TO63R2SB0100.5	R2	114	107	0.4	EPA Region 5	invert	Y	Y	2
Cobalt	TO63R3SB0100.5	R3	55.8	27.6	13 (120)	Eco-SSL	plant (bird)	N	Y	5
Copper	TO63R4SB0200.5	R4	62	48.8	5.4	EPA Region 5	mammal	Y	Y	2
Lead	TO63R4SB0300.5	R4	234	30.7	11	Eco-SSL	bird	Y	Y	2
Mercury	TO63-193-SB03-0-0.5	193	0.482	0.42	0.1	EPA Region 5	invert	Y	Y	2
Nickel	TO63-PDD-SB05-0-0.5	PDD	67	113.5	13.6	EPA Region 5	mammal	Y	N	1
Selenium	TO63RSPSB0200.5	RSP	0.7	NVA	0.028	EPA Region 5	mammal	Y	Y	2
Silver	TO63-193-SB03-0-0.5	193	4.81	0.21	4.04	EPA Region 5	mammal	Y	Y	2
Thallium	TO63-PDD-SB05-0-0.5	PDD	0.185	NVA	0.057	EPA Region 5	mammal	N	Y	4
Vanadium	TO63R2SB0100.5	R2	94.7	118	7.8	Eco-SSL	bird	N	N	1
Zinc	TO63-193-SB02-0-0.5	193	110	92	6.62	EPA Region 5	invert	Y	Y	2
TPH-DRO	TO63R4SB0300.5	R4	33	NA	1000	Efroymson, et. al., 2004	invert	N	N	4
TPH-GRO	TO63R2SB020.0.5	R2	1.8	NA	1000	Efroymson, et. al., 2004	invert	N	N	4
TPH-RRO	TO63R1SB0100.5	R1	300	NA	1000	Efroymson, et. al., 2004	invert	N	N	4
Total PCBs[b]	T063-193-SB03-0-0.5	193	0.07	NA	0.371	ORNL	mammal	Y	Y	7
Total DDT[c]	NA – summation	PDD	0.36	NA	0.0035	EPA Region 5	mammal	Y	Y	2
2,6-DNT	TO63-193-SB03-0-0.5D	193	0.2	NA	0.033	EPA Region 5	mammal	N	Y	2
2-Methylnaphthalene	TO63R3SB0300.5	R3	0.0044	NA	3.24	EPA Region 5	mammal	N	Y	6
2-Nitroaniline	TO63-R1-SB02-0-0.5	R1	0.0053	NA	74.1	EPA Region 5	mammal	N	N	4
HMX	TO63-193-SB03-0-0.5D	193	0.69	NA	NVA	NA	NA	N	Y	3
Acenaphthylene	TO63R4SB0200.5	R4	0.0032	NA	682	EPA Region 5	mammal	N	Y	6
Acetone	TO63R3SB0100.5	R3	0.045	NA	2.5	EPA Region 5	mammal	N	N	4
Acetophenone	TO63-SPN-SB03-0-0.5	SPN	0.039	NA	300	EPA Region 5	mammal	N	N	4

Table G-1. COPEC Screening Table for Chemicals Detected at the Ballfields Parcels (Continued)

Analytes	Sample ID	Location Code	Max Conc. (mg/kg)	Background Concentration (mg/kg)	Benchmark (mg/kg)	Benchmark Source	Receptor Group	Bioaccumulative?	Retain as COPEC?	Reason Code[a]
Anthracene	TO63-R1-SB01-0-0.5	R1	0.0036	NA	1480	EPA Region 5	mammal	Y	Y	6,7
Benz(a)anthracene	TO63R5SB010.0.5	R5	0.014	NA	5.21	EPA Region 5	mammal	Y	Y	6,7
Benzaldehyde	TO63RSPSB0200.5	RSP	0.033	NA	NVA	NA	NA	N	Y	3
Benzo(a)pyrene	TO63R4SB0200.5	R4	0.016	NA	1.52	EPA Region 5	mammal	Y	Y	6,7
Benzo(b)fluoranthene	TO63R4SB0200.5	R4	0.026	NA	59.8	EPA Region 5	mammal	Y	Y	6,7
Benzo(g,h,i)perylene	TO63R4SB0200.5	R4	0.022	NA	119	EPA Region 5	mammal	Y	Y	6,7
Benzo(k)fluoranthene	TO63R4SB0200.5	R4	0.0085	NA	148	EPA Region 5	mammal	Y	Y	6,7
Bis(2-ethylhexyl) Phthalate	TO63R3SB0300.5	R3	0.37	NA	0.925	EPA Region 5	mammal	N	N	4
Butyl Benzyl Phthalate	TO63R1SB0100.5	R1	0.017	NA	0.239	EPA Region 5	mammal	N	N	4
Caprolactam	TO63R3SB0400.5	R3	0.019	NA	NVA	NA	NA	N	Y	3
Carbazole	TO63-SPN-SB03-0-0.5	SPN	0.0025	NA	NVA	NA	NA	N	Y	3
Chrysene	TO63R5SB010.0.5	R5	0.019	NA	4.73	EPA Region 5	mammal	Y	Y	6,7
Dibenz(a,h)anthracene	TO63R4SB0200.5	R4	0.004	NA	18.4	EPA Region 5	mammal	Y	Y	6,7
Diethyl Phthalate	TO63RSPSB0300.5	RSP	0.0067	NA	24.8	EPA Region 5	mammal	N	N	4
Di-n-butyl Phthalate	TO63RSPSB0200.5	RSP	0.041	NA	0.15	EPA Region 5	mammal	N	N	4
Fluoranthene	TO63R4SB0200.5	R4	0.022	NA	122	EPA Region 5	mammal	Y	Y	6,7
Indeno(1,2,3-cd)pyrene	TO63R4SB0200.5	R4	0.02	NA	109	EPA Region 5	mammal	Y	Y	6,7
m,p-Xylenes	TO63R5SB010.0.5	R5	0.002	NA	10	EPA Region 5	plant	N	N	4
Methylene Chloride	TO63R1SB0400.5	R1	0.0035	NA	4.05	EPA Region 5	mammal	N	N	4
Naphthalene	TO63R3SB0300.5	R3	0.0025	NA	0.099	EPA Region 5	mammal	N	Y	6
o-Xylene	TO63R5SB010.0.5	R5	0.0011	NA	10	EPA Region 5	plant	N	N	4
Phenanthrene	TO63R1SB0400.5	R1	0.014	NA	45.7	EPA Region 5	mammal	Y	Y	6,7
Phenol	TO63-R1-SB01-0-0.5	R1	0.014	NA	120	EPA Region 5	mammal	N	N	4
Pyrene	TO63R5SB010.0.5	R5	0.019	NA	78.5	EPA Region 5	mammal	Y	N	4

Invert - invertebrate
Y = yes; N = no
NVA = no value available; NA = not applicable
Shading indicates chemicals retained as a COPEC.

Table G-1. COPEC Screening Table for Chemicals Detected at the Ballfields Parcels (Continued)

(a) Reason codes:
(1) not retained as a COPEC because the maximum concentration is less than background (ambient) concentration;
(2) retained as COPEC because the maximum concentration of the analyte exceeded the soil screening benchmark;
(3) retained as COPEC because there is no soil screening benchmark available for the analyte;
(4) not retained as a COPEC because the maximum concentration is less than the soil screening benchmark.
(5) retained as a COPEC only for plants. See Section 6.2.3 and Table 20 in the text.
(6) Retained as a COPEC because all PAHs will be included in the dose assessment for birds and mammals (refer to Section 6.2.2).
(7) Retained as a COPEC because analyte is bioaccumulative.
(b) Total PCBs represent the sum of 18 NOAA S&T congeners multiplied by 2.
(c) Total DDT compounds represent the sum of all the 4,4'- DDD, DDE, and DDT compounds.