

Appendix E
Detailed Risk Calculations

Table E-1
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤2 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
347 244TH ST	Chromium, Hexavalent	mg/kg	0.48	Max	2.3E+02	1.3E+00	2E-03	4E-07
347 244TH ST	Cobalt	mg/kg	11.69	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
347 244TH ST	Naphthalene	mg/kg	0.0047	Max	1.5E+02	4.0E+00	3E-05	1E-09
347 244TH ST	Pyrene	mg/kg	0.0158	95UCL	1.7E+03	--	9E-06	--
347 244TH ST	Toluene	µg/kg	0.323	95UCL	4.8E+06	--	7E-08	--
347 244TH ST	TPH as Diesel	mg/kg	170.7	95UCL	1.3E+03	--	1E-01	--
347 244TH ST	TPH as Gasoline	mg/kg	0.096	Max	7.6E+02	--	1E-04	--
347 244TH ST	TPH as Motor Oil	mg/kg	558.3	95UCL	3.3E+03	--	2E-01	--
347 244TH ST	Xylenes, Total	µg/kg	0.23	Max	5.6E+05	--	4E-07	--
348 248TH ST	1,2,4-Trimethylbenzene	µg/kg	0.692	95UCL	8.3E+04	--	8E-06	--
348 248TH ST	1,3,5-Trimethylbenzene	µg/kg	1.9	Max	8.5E+04	--	2E-05	--
348 248TH ST	1-Methylnaphthalene	mg/kg	0.0261	95UCL	4.0E+03	1.6E+01	7E-06	2E-09
348 248TH ST	2-Methylnaphthalene	mg/kg	0.0971	95UCL	2.3E+02	--	4E-04	--
348 248TH ST	Benzene	µg/kg	5.856	95UCL	6.7E+04	2.2E+02	9E-05	3E-08
348 248TH ST	Bromodichloromethane	µg/kg	0.19	Max	4.3E+05	4.9E+02	4E-07	4E-10
348 248TH ST	Bromomethane	µg/kg	3.7	Max	8.8E+03	--	4E-04	--
348 248TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
348 248TH ST	Ethylbenzene	µg/kg	0.26	95UCL	3.3E+06	4.8E+03	8E-08	5E-11
348 248TH ST	Naphthalene	mg/kg	0.0261	95UCL	1.5E+02	4.0E+00	2E-04	7E-09
348 248TH ST	Pyrene	mg/kg	0.338	95UCL	1.7E+03	--	2E-04	--
348 248TH ST	Tetrachloroethene	µg/kg	0.34	Max	8.6E+04	5.5E+02	4E-06	6E-10
348 248TH ST	Toluene	µg/kg	1.071	95UCL	4.8E+06	--	2E-07	--
348 248TH ST	TPH as Diesel	mg/kg	695.1	95UCL	1.3E+03	--	5E-01	--
348 248TH ST	TPH as Gasoline	mg/kg	0.164	95UCL	7.6E+02	--	2E-04	--
348 248TH ST	TPH as Motor Oil	mg/kg	1856	95UCL	3.3E+03	--	6E-01	--
348 248TH ST	Xylenes, Total	µg/kg	0.621	95UCL	5.6E+05	--	1E-06	--
348 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.59	Max	8.3E+04	--	7E-06	--
348 249TH ST	1-Methylnaphthalene	mg/kg	0.00882	95UCL	4.0E+03	1.6E+01	2E-06	6E-10
348 249TH ST	2-Methylnaphthalene	mg/kg	0.035	95UCL	2.3E+02	--	2E-04	--
348 249TH ST	Benzene	µg/kg	0.218	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
348 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	1.2E+03	3.5E+01	3E-04	1E-08
348 249TH ST	Bromomethane	µg/kg	2.7	Max	8.8E+03	--	3E-04	--
348 249TH ST	Chromium, Hexavalent	mg/kg	0.26	Max	2.3E+02	1.3E+00	1E-03	2E-07
348 249TH ST	Naphthalene	mg/kg	0.0132	95UCL	1.5E+02	4.0E+00	9E-05	3E-09
348 249TH ST	Pyrene	mg/kg	0.294	95UCL	1.7E+03	--	2E-04	--
348 249TH ST	Toluene	µg/kg	0.265	95UCL	4.8E+06	--	6E-08	--
348 249TH ST	TPH as Diesel	mg/kg	253.2	95UCL	1.3E+03	--	2E-01	--
348 249TH ST	TPH as Gasoline	mg/kg	0.0684	95UCL	7.6E+02	--	9E-05	--
348 249TH ST	TPH as Motor Oil	mg/kg	793.2	95UCL	3.3E+03	--	2E-01	--
348 249TH ST	Xylenes, Total	µg/kg	0.2	Max	5.6E+05	--	4E-07	--
351 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.224	95UCL	8.3E+04	--	3E-06	--
351 244TH ST	1-Methylnaphthalene	mg/kg	0.00375	95UCL	4.0E+03	1.6E+01	9E-07	2E-10
351 244TH ST	2-Methylnaphthalene	mg/kg	0.00674	95UCL	2.3E+02	--	3E-05	--
351 244TH ST	Benzene	µg/kg	0.697	95UCL	6.7E+04	2.2E+02	1E-05	3E-09
351 244TH ST	Chromium, Hexavalent	mg/kg	0.315	95UCL	2.3E+02	1.3E+00	1E-03	3E-07
351 244TH ST	Cobalt	mg/kg	11.37	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
351 244TH ST	Ethylbenzene	µg/kg	0.21	Max	3.3E+06	4.8E+03	6E-08	4E-11
351 244TH ST	Naphthalene	mg/kg	0.00401	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
351 244TH ST	Pyrene	mg/kg	0.0244	95UCL	1.7E+03	--	1E-05	--
351 244TH ST	Toluene	µg/kg	0.498	95UCL	4.8E+06	--	1E-07	--
351 244TH ST	TPH as Diesel	mg/kg	203.1	95UCL	1.3E+03	--	2E-01	--
351 244TH ST	TPH as Gasoline	mg/kg	0.21	Max	7.6E+02	--	3E-04	--
351 244TH ST	TPH as Motor Oil	mg/kg	685.6	95UCL	3.3E+03	--	2E-01	--
351 244TH ST	Xylenes, Total	µg/kg	0.53	Max	5.6E+05	--	1E-06	--
352 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.542	95UCL	8.3E+04	--	7E-06	--
352 249TH ST	1-Methylnaphthalene	mg/kg	0.0087	Max	4.0E+03	1.6E+01	2E-06	6E-10
352 249TH ST	2-Methylnaphthalene	mg/kg	0.0242	95UCL	2.3E+02	--	1E-04	--
352 249TH ST	Benzene	µg/kg	0.454	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
352 249TH ST	Chromium, Hexavalent	mg/kg	0.23	Max	2.3E+02	1.3E+00	1E-03	2E-07
352 249TH ST	Ethylbenzene	µg/kg	0.212	95UCL	3.3E+06	4.8E+03	7E-08	4E-11
352 249TH ST	Naphthalene	mg/kg	0.0152	95UCL	1.5E+02	4.0E+00	1E-04	4E-09
352 249TH ST	Pyrene	mg/kg	0.136	95UCL	1.7E+03	--	8E-05	--

Appendix E
Detailed Risk Calculations

Table E-1
CO-C Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤2 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
352 249TH ST	Toluene	µg/kg	2.265	95UCL	4.8E+06	--	5E-07	--
352 249TH ST	TPH as Diesel	mg/kg	425.6	95UCL	1.3E+03	--	3E-01	--
352 249TH ST	TPH as Gasoline	mg/kg	2.697	95UCL	7.6E+02	--	4E-03	--
352 249TH ST	TPH as Motor Oil	mg/kg	1105	95UCL	3.3E+03	--	3E-01	--
352 249TH ST	Xylenes, Total	µg/kg	0.757	95UCL	5.6E+05	--	1E-06	--
353 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.293	95UCL	8.3E+04	--	4E-06	--
353 249TH ST	1-Methylnaphthalene	mg/kg	0.015	Max	4.0E+03	1.6E+01	4E-06	1E-09
353 249TH ST	2-Methylnaphthalene	mg/kg	0.0126	95UCL	2.3E+02	--	6E-05	--
353 249TH ST	Benzene	µg/kg	0.309	95UCL	6.7E+04	2.2E+02	5E-06	1E-09
353 249TH ST	Chromium, Hexavalent	mg/kg	0.299	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
353 249TH ST	Naphthalene	mg/kg	0.00528	95UCL	1.5E+02	4.0E+00	4E-05	1E-09
353 249TH ST	Pyrene	mg/kg	0.0665	95UCL	1.7E+03	--	4E-05	--
353 249TH ST	Toluene	µg/kg	0.359	95UCL	4.8E+06	--	8E-08	--
353 249TH ST	TPH as Diesel	mg/kg	318.7	95UCL	1.3E+03	--	3E-01	--
353 249TH ST	TPH as Gasoline	mg/kg	0.0694	95UCL	7.6E+02	--	9E-05	--
353 249TH ST	TPH as Motor Oil	mg/kg	998	95UCL	3.3E+03	--	3E-01	--
353 249TH ST	Xylenes, Total	µg/kg	0.81	Max	5.6E+05	--	2E-06	--
354 248TH ST	1,2,4-Trimethylbenzene	µg/kg	104	95UCL	8.3E+04	--	1E-03	--
354 248TH ST	1,3,5-Trimethylbenzene	µg/kg	590	Max	8.5E+04	--	7E-03	--
354 248TH ST	1-Methylnaphthalene	mg/kg	3.118	95UCL	4.0E+03	1.6E+01	8E-04	2E-07
354 248TH ST	2-Methylnaphthalene	mg/kg	4.055	95UCL	2.3E+02	--	2E-02	--
354 248TH ST	Benzene	µg/kg	0.268	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
354 248TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.52	Max	1.2E+03	3.5E+01	4E-04	2E-08
354 248TH ST	Chromium, Hexavalent	mg/kg	0.36	Max	2.3E+02	1.3E+00	2E-03	3E-07
354 248TH ST	Ethylbenzene	µg/kg	19	Max	3.3E+06	4.8E+03	6E-06	4E-09
354 248TH ST	Naphthalene	mg/kg	1.174	95UCL	1.5E+02	4.0E+00	8E-03	3E-07
354 248TH ST	Pyrene	mg/kg	1.214	95UCL	1.7E+03	--	7E-04	--
354 248TH ST	Toluene	µg/kg	0.25	95UCL	4.8E+06	--	5E-08	--
354 248TH ST	TPH as Diesel	mg/kg	3880	95UCL	1.3E+03	--	3E+00	--
354 248TH ST	TPH as Gasoline	mg/kg	1.073	95UCL	7.6E+02	--	1E-03	--
354 248TH ST	TPH as Motor Oil	mg/kg	3958	95UCL	3.3E+03	--	1E+00	--
357 244TH ST	1-Methylnaphthalene	mg/kg	0.0068	Max	4.0E+03	1.6E+01	2E-06	4E-10
357 244TH ST	2-Methylnaphthalene	mg/kg	0.00591	95UCL	2.3E+02	--	3E-05	--
357 244TH ST	Benzene	µg/kg	0.24	Max	6.7E+04	2.2E+02	4E-06	1E-09
357 244TH ST	Chromium, Hexavalent	mg/kg	0.44	Max	2.3E+02	1.3E+00	2E-03	3E-07
357 244TH ST	Cobalt	mg/kg	12.77	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
357 244TH ST	Naphthalene	mg/kg	0.00337	95UCL	1.5E+02	4.0E+00	2E-05	9E-10
357 244TH ST	Pyrene	mg/kg	0.0233	95UCL	1.7E+03	--	1E-05	--
357 244TH ST	Toluene	µg/kg	0.28	Max	4.8E+06	--	6E-08	--
357 244TH ST	TPH as Diesel	mg/kg	45.55	95UCL	1.3E+03	--	4E-02	--
357 244TH ST	TPH as Gasoline	mg/kg	0.0931	95UCL	7.6E+02	--	1E-04	--
357 244TH ST	TPH as Motor Oil	mg/kg	177.4	95UCL	3.3E+03	--	5E-02	--
357 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.33	Max	8.3E+04	--	4E-06	--
357 249TH ST	1-Methylnaphthalene	mg/kg	0.12	Max	4.0E+03	1.6E+01	3E-05	8E-09
357 249TH ST	2-Methylnaphthalene	mg/kg	0.0364	95UCL	2.3E+02	--	2E-04	--
357 249TH ST	Benzene	µg/kg	0.33	Max	6.7E+04	2.2E+02	5E-06	2E-09
357 249TH ST	Naphthalene	mg/kg	0.0331	95UCL	1.5E+02	4.0E+00	2E-04	8E-09
357 249TH ST	Pyrene	mg/kg	1.013	95UCL	1.7E+03	--	6E-04	--
357 249TH ST	Toluene	µg/kg	0.292	95UCL	4.8E+06	--	6E-08	--
357 249TH ST	TPH as Diesel	mg/kg	405.9	95UCL	1.3E+03	--	3E-01	--
357 249TH ST	TPH as Gasoline	mg/kg	0.143	95UCL	7.6E+02	--	2E-04	--
357 249TH ST	TPH as Motor Oil	mg/kg	1357	95UCL	3.3E+03	--	4E-01	--
358 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.26	Max	8.3E+04	--	3E-06	--
358 249TH ST	1-Methylnaphthalene	mg/kg	0.00846	95UCL	4.0E+03	1.6E+01	2E-06	5E-10
358 249TH ST	2-Methylnaphthalene	mg/kg	0.0313	95UCL	2.3E+02	--	1E-04	--
358 249TH ST	Benzene	µg/kg	0.201	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
358 249TH ST	Naphthalene	mg/kg	0.00813	95UCL	1.5E+02	4.0E+00	5E-05	2E-09
358 249TH ST	Pyrene	mg/kg	0.124	95UCL	1.7E+03	--	7E-05	--
358 249TH ST	Toluene	µg/kg	0.263	95UCL	4.8E+06	--	6E-08	--
358 249TH ST	TPH as Diesel	mg/kg	830.2	95UCL	1.3E+03	--	6E-01	--
358 249TH ST	TPH as Gasoline	mg/kg	0.112	95UCL	7.6E+02	--	2E-04	--
358 249TH ST	TPH as Motor Oil	mg/kg	1823	95UCL	3.3E+03	--	6E-01	--

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Detailed Risk Calculations

Table E-1
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤ 2 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
358 249TH ST	Xylenes, Total	µg/kg	0.69	Max	5.6E+05	--	1E-06	--
360 248TH ST	1-Methylnaphthalene	mg/kg	0.0148	95UCL	4.0E+03	1.6E+01	4E-06	1E-09
360 248TH ST	2-Methylnaphthalene	mg/kg	0.0594	95UCL	2.3E+02	--	3E-04	--
360 248TH ST	Benzene	µg/kg	0.2	Max	6.7E+04	2.2E+02	3E-06	9E-10
360 248TH ST	Naphthalene	mg/kg	0.0214	95UCL	1.5E+02	4.0E+00	1E-04	5E-09
360 248TH ST	Pyrene	mg/kg	0.288	95UCL	1.7E+03	--	2E-04	--
360 248TH ST	Toluene	µg/kg	0.37	Max	4.8E+06	--	8E-08	--
360 248TH ST	TPH as Diesel	mg/kg	406.9	95UCL	1.3E+03	--	3E-01	--
360 248TH ST	TPH as Gasoline	mg/kg	0.097	Max	7.6E+02	--	1E-04	--
360 248TH ST	TPH as Motor Oil	mg/kg	671.6	95UCL	3.3E+03	--	2E-01	--
361 244TH ST	2-Methylnaphthalene	mg/kg	0.00447	95UCL	2.3E+02	--	2E-05	--
361 244TH ST	Benzene	µg/kg	0.17	Max	6.7E+04	2.2E+02	3E-06	8E-10
361 244TH ST	Chromium, Hexavalent	mg/kg	0.76	Max	2.3E+02	1.3E+00	3E-03	6E-07
361 244TH ST	Cobalt	mg/kg	11.89	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
361 244TH ST	Naphthalene	mg/kg	0.027	Max	1.5E+02	4.0E+00	2E-04	7E-09
361 244TH ST	Pyrene	mg/kg	0.0148	95UCL	1.7E+03	--	9E-06	--
361 244TH ST	Toluene	µg/kg	0.17	Max	4.8E+06	--	4E-08	--
361 244TH ST	TPH as Diesel	mg/kg	87.6	95UCL	1.3E+03	--	7E-02	--
361 244TH ST	TPH as Gasoline	mg/kg	0.12	Max	7.6E+02	--	2E-04	--
361 244TH ST	TPH as Motor Oil	mg/kg	890	Max	3.3E+03	--	3E-01	--
361 244TH ST	Xylenes, Total	µg/kg	0.52	Max	5.6E+05	--	9E-07	--
362 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.11	Max	8.3E+04	--	1E-06	--
362 249TH ST	1-Methylnaphthalene	mg/kg	0.0049	Max	4.0E+03	1.6E+01	1E-06	3E-10
362 249TH ST	2-Methylnaphthalene	mg/kg	0.0089	95UCL	2.3E+02	--	4E-05	--
362 249TH ST	Benzene	µg/kg	0.449	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
362 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.2	Max	1.2E+03	3.5E+01	1E-03	4E-08
362 249TH ST	Ethylbenzene	µg/kg	0.19	Max	3.3E+06	4.8E+03	6E-08	4E-11
362 249TH ST	Naphthalene	mg/kg	0.0079	Max	1.5E+02	4.0E+00	5E-05	2E-09
362 249TH ST	Pyrene	mg/kg	0.0695	95UCL	1.7E+03	--	4E-05	--
362 249TH ST	Toluene	µg/kg	0.308	95UCL	4.8E+06	--	6E-08	--
362 249TH ST	TPH as Diesel	mg/kg	898.7	95UCL	1.3E+03	--	7E-01	--
362 249TH ST	TPH as Gasoline	mg/kg	0.123	95UCL	7.6E+02	--	2E-04	--
362 249TH ST	TPH as Motor Oil	mg/kg	1805	95UCL	3.3E+03	--	6E-01	--
362 249TH ST	Xylenes, Total	µg/kg	0.27	Max	5.6E+05	--	5E-07	--
363 249TH ST	1,2,4-Trimethylbenzene	µg/kg	1.2	Max	8.3E+04	--	2E-05	--
363 249TH ST	1-Methylnaphthalene	mg/kg	0.075	Max	4.0E+03	1.6E+01	2E-05	5E-09
363 249TH ST	2-Methylnaphthalene	mg/kg	0.0594	95UCL	2.3E+02	--	3E-04	--
363 249TH ST	Benzene	µg/kg	0.486	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
363 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.467	95UCL	1.2E+03	3.5E+01	4E-04	1E-08
363 249TH ST	Naphthalene	mg/kg	0.0236	95UCL	1.5E+02	4.0E+00	2E-04	6E-09
363 249TH ST	Pyrene	mg/kg	1.362	95UCL	1.7E+03	--	8E-04	--
363 249TH ST	Toluene	µg/kg	0.713	95UCL	4.8E+06	--	2E-07	--
363 249TH ST	TPH as Diesel	mg/kg	361.5	95UCL	1.3E+03	--	3E-01	--
363 249TH ST	TPH as Gasoline	mg/kg	0.12	95UCL	7.6E+02	--	2E-04	--
363 249TH ST	TPH as Motor Oil	mg/kg	1021	95UCL	3.3E+03	--	3E-01	--
363 249TH ST	Xylenes, Total	µg/kg	0.354	95UCL	5.6E+05	--	6E-07	--
364 248TH ST	1,2,4-Trimethylbenzene	µg/kg	11	95UCL	8.3E+04	--	1E-04	--
364 248TH ST	1,3,5-Trimethylbenzene	µg/kg	200	Max	8.5E+04	--	2E-03	--
364 248TH ST	1-Methylnaphthalene	mg/kg	0.9	95UCL	4.0E+03	1.6E+01	2E-04	6E-08
364 248TH ST	2-Methylnaphthalene	mg/kg	1.175	95UCL	2.3E+02	--	5E-03	--
364 248TH ST	Benzene	µg/kg	0.327	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
364 248TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.8	Max	1.2E+03	3.5E+01	7E-04	2E-08
364 248TH ST	Bromomethane	µg/kg	190	Max	8.8E+03	--	2E-02	--
364 248TH ST	Ethylbenzene	µg/kg	67	Max	3.3E+06	4.8E+03	2E-05	1E-08
364 248TH ST	Naphthalene	mg/kg	0.359	95UCL	1.5E+02	4.0E+00	2E-03	9E-08
364 248TH ST	Pyrene	mg/kg	0.911	95UCL	1.7E+03	--	5E-04	--
364 248TH ST	Toluene	µg/kg	0.288	95UCL	4.8E+06	--	6E-08	--
364 248TH ST	TPH as Diesel	mg/kg	2664	95UCL	1.3E+03	--	2E+00	--
364 248TH ST	TPH as Gasoline	mg/kg	0.946	95UCL	7.6E+02	--	1E-03	--
364 248TH ST	TPH as Motor Oil	mg/kg	3852	95UCL	3.3E+03	--	1E+00	--
364 248TH ST	Xylenes, Total	µg/kg	65	Max	5.6E+05	--	1E-04	--
367 244TH ST	2-Methylnaphthalene	mg/kg	0.038	Max	2.3E+02	--	2E-04	--

Appendix E
Detailed Risk Calculations

Table E-1
CO₂-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤2 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
367 244TH ST	Benzene	µg/kg	0.16	Max	6.7E+04	2.2E+02	2E-06	7E-10
367 244TH ST	Pyrene	mg/kg	0.65	Max	1.7E+03	--	4E-04	--
367 244TH ST	Toluene	µg/kg	0.18	Max	4.8E+06	--	4E-08	--
367 244TH ST	TPH as Diesel	mg/kg	1900	Max	1.3E+03	--	2E+00	--
367 244TH ST	TPH as Motor Oil	mg/kg	4900	Max	3.3E+03	--	2E+00	--
367 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.211	95UCL	8.3E+04	--	3E-06	--
367 249TH ST	1-Methylnaphthalene	mg/kg	0.01	Max	4.0E+03	1.6E+01	3E-06	6E-10
367 249TH ST	2-Methylnaphthalene	mg/kg	0.0161	95UCL	2.3E+02	--	7E-05	--
367 249TH ST	Benzene	µg/kg	0.211	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
367 249TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
367 249TH ST	Naphthalene	mg/kg	0.0136	95UCL	1.5E+02	4.0E+00	9E-05	3E-09
367 249TH ST	Pyrene	mg/kg	0.437	95UCL	1.7E+03	--	3E-04	--
367 249TH ST	Toluene	µg/kg	0.188	95UCL	4.8E+06	--	4E-08	--
367 249TH ST	TPH as Diesel	mg/kg	446	95UCL	1.3E+03	--	3E-01	--
367 249TH ST	TPH as Gasoline	mg/kg	0.14	Max	7.6E+02	--	2E-04	--
367 249TH ST	TPH as Motor Oil	mg/kg	1325	95UCL	3.3E+03	--	4E-01	--
368 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.267	95UCL	8.3E+04	--	3E-06	--
368 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.12	Max	8.5E+04	--	1E-06	--
368 249TH ST	1-Methylnaphthalene	mg/kg	0.00653	95UCL	4.0E+03	1.6E+01	2E-06	4E-10
368 249TH ST	2-Methylnaphthalene	mg/kg	0.0208	95UCL	2.3E+02	--	9E-05	--
368 249TH ST	Benzene	µg/kg	0.196	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
368 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.7	Max	1.2E+03	3.5E+01	1E-03	5E-08
368 249TH ST	Chromium, Hexavalent	mg/kg	0.32	Max	2.3E+02	1.3E+00	1E-03	3E-07
368 249TH ST	Ethylbenzene	µg/kg	0.18	Max	3.3E+06	4.8E+03	6E-08	4E-11
368 249TH ST	Naphthalene	mg/kg	0.0136	95UCL	1.5E+02	4.0E+00	9E-05	3E-09
368 249TH ST	Pyrene	mg/kg	0.156	95UCL	1.7E+03	--	9E-05	--
368 249TH ST	Toluene	µg/kg	0.228	95UCL	4.8E+06	--	5E-08	--
368 249TH ST	TPH as Diesel	mg/kg	566.3	95UCL	1.3E+03	--	4E-01	--
368 249TH ST	TPH as Gasoline	mg/kg	0.26	95UCL	7.6E+02	--	3E-04	--
368 249TH ST	TPH as Motor Oil	mg/kg	1488	95UCL	3.3E+03	--	5E-01	--
368 249TH ST	Xylenes, Total	µg/kg	0.54	Max	5.6E+05	--	1E-06	--
373 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.54	Max	8.3E+04	--	7E-06	--
373 249TH ST	1-Methylnaphthalene	mg/kg	0.00834	95UCL	4.0E+03	1.6E+01	2E-06	5E-10
373 249TH ST	2-Methylnaphthalene	mg/kg	0.0205	95UCL	2.3E+02	--	9E-05	--
373 249TH ST	Benzene	µg/kg	0.334	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
373 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.2	Max	1.2E+03	3.5E+01	2E-04	6E-09
373 249TH ST	Bromomethane	µg/kg	2.9	Max	8.8E+03	--	3E-04	--
373 249TH ST	Naphthalene	mg/kg	0.018	95UCL	1.5E+02	4.0E+00	1E-04	5E-09
373 249TH ST	Pyrene	mg/kg	0.174	95UCL	1.7E+03	--	1E-04	--
373 249TH ST	Toluene	µg/kg	0.795	95UCL	4.8E+06	--	2E-07	--
373 249TH ST	TPH as Diesel	mg/kg	277.8	95UCL	1.3E+03	--	2E-01	--
373 249TH ST	TPH as Gasoline	mg/kg	0.122	95UCL	7.6E+02	--	2E-04	--
373 249TH ST	TPH as Motor Oil	mg/kg	835.4	95UCL	3.3E+03	--	3E-01	--
373 249TH ST	Xylenes, Total	µg/kg	0.21	Max	5.6E+05	--	4E-07	--
374 248TH ST	1,2,4-Trimethylbenzene	µg/kg	249.4	95UCL	8.3E+04	--	3E-03	--
374 248TH ST	1,3,5-Trimethylbenzene	µg/kg	570	Max	8.5E+04	--	7E-03	--
374 248TH ST	1-Methylnaphthalene	mg/kg	1.301	95UCL	4.0E+03	1.6E+01	3E-04	8E-08
374 248TH ST	2-Methylnaphthalene	mg/kg	0.764	95UCL	2.3E+02	--	3E-03	--
374 248TH ST	Benzene	µg/kg	6.863	95UCL	6.7E+04	2.2E+02	1E-04	3E-08
374 248TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.4	Max	1.2E+03	3.5E+01	3E-04	1E-08
374 248TH ST	Ethylbenzene	µg/kg	230	Max	3.3E+06	4.8E+03	7E-05	5E-08
374 248TH ST	Naphthalene	mg/kg	0.26	95UCL	1.5E+02	4.0E+00	2E-03	7E-08
374 248TH ST	Pyrene	mg/kg	0.548	95UCL	1.7E+03	--	3E-04	--
374 248TH ST	Toluene	µg/kg	0.51	95UCL	4.8E+06	--	1E-07	--
374 248TH ST	TPH as Diesel	mg/kg	1077	95UCL	1.3E+03	--	8E-01	--
374 248TH ST	TPH as Gasoline	mg/kg	0.202	95UCL	7.6E+02	--	3E-04	--
374 248TH ST	TPH as Motor Oil	mg/kg	1770	95UCL	3.3E+03	--	5E-01	--
374 248TH ST	Xylenes, Total	µg/kg	53.3	95UCL	5.6E+05	--	1E-04	--
374 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.27	Max	8.3E+04	--	3E-06	--
374 249TH ST	1-Methylnaphthalene	mg/kg	0.013	Max	4.0E+03	1.6E+01	3E-06	8E-10
374 249TH ST	2-Methylnaphthalene	mg/kg	0.0333	95UCL	2.3E+02	--	2E-04	--
374 249TH ST	Benzene	µg/kg	0.51	95UCL	6.7E+04	2.2E+02	8E-06	2E-09

Appendix E
Detailed Risk Calculations

Table E-1
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil \leq 2 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
374 249TH ST	Ethylbenzene	µg/kg	0.43	Max	3.3E+06	4.8E+03	1E-07	9E-11
374 249TH ST	Naphthalene	mg/kg	0.019	Max	1.5E+02	4.0E+00	1E-04	5E-09
374 249TH ST	Pyrene	mg/kg	0.289	95UCL	1.7E+03	--	2E-04	--
374 249TH ST	Toluene	µg/kg	0.308	95UCL	4.8E+06	--	6E-08	--
374 249TH ST	TPH as Diesel	mg/kg	623	95UCL	1.3E+03	--	5E-01	--
374 249TH ST	TPH as Gasoline	mg/kg	0.29	Max	7.6E+02	--	4E-04	--
374 249TH ST	TPH as Motor Oil	mg/kg	1147	95UCL	3.3E+03	--	4E-01	--
374 249TH ST	Xylenes, Total	µg/kg	0.36	Max	5.6E+05	--	7E-07	--
377 244TH ST	1-Methylnaphthalene	mg/kg	0.0036	Max	4.0E+03	1.6E+01	9E-07	2E-10
377 244TH ST	2-Methylnaphthalene	mg/kg	0.0136	95UCL	2.3E+02	--	6E-05	--
377 244TH ST	Benzene	µg/kg	0.19	Max	6.7E+04	2.2E+02	3E-06	9E-10
377 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.51	Max	1.2E+03	3.5E+01	4E-04	2E-08
377 244TH ST	Chromium, Hexavalent	mg/kg	0.4	Max	2.3E+02	1.3E+00	2E-03	3E-07
377 244TH ST	Cobalt	mg/kg	11.65	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
377 244TH ST	Naphthalene	mg/kg	0.00316	95UCL	1.5E+02	4.0E+00	2E-05	8E-10
377 244TH ST	Pyrene	mg/kg	0.209	95UCL	1.7E+03	--	1E-04	--
377 244TH ST	Toluene	µg/kg	0.21	Max	4.8E+06	--	4E-08	--
377 244TH ST	TPH as Diesel	mg/kg	289.3	95UCL	1.3E+03	--	2E-01	--
377 244TH ST	TPH as Gasoline	mg/kg	0.088	Max	7.6E+02	--	1E-04	--
377 244TH ST	TPH as Motor Oil	mg/kg	830.2	95UCL	3.3E+03	--	3E-01	--
377 249TH ST	1,2,4-Trimethylbenzene	µg/kg	2.6	Max	8.3E+04	--	3E-05	--
377 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.49	Max	8.5E+04	--	6E-06	--
377 249TH ST	1-Methylnaphthalene	mg/kg	5.144	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
377 249TH ST	2-Methylnaphthalene	mg/kg	6.901	95UCL	2.3E+02	--	3E-02	--
377 249TH ST	Benzene	µg/kg	0.923	95UCL	6.7E+04	2.2E+02	1E-05	4E-09
377 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.4	Max	1.2E+03	3.5E+01	3E-04	1E-08
377 249TH ST	Ethylbenzene	µg/kg	0.7	Max	3.3E+06	4.8E+03	2E-07	2E-10
377 249TH ST	Naphthalene	mg/kg	1.743	95UCL	1.5E+02	4.0E+00	1E-02	4E-07
377 249TH ST	Pyrene	mg/kg	1.11	95UCL	1.7E+03	--	7E-04	--
377 249TH ST	Toluene	µg/kg	0.17	Max	4.8E+06	--	4E-08	--
377 249TH ST	TPH as Diesel	mg/kg	3916	95UCL	1.3E+03	--	3E+00	--
377 249TH ST	TPH as Gasoline	mg/kg	0.277	95UCL	7.6E+02	--	4E-04	--
377 249TH ST	TPH as Motor Oil	mg/kg	3221	95UCL	3.3E+03	--	1E+00	--
377 249TH ST	Xylenes, Total	µg/kg	0.96	Max	5.6E+05	--	2E-06	--
378 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.16	Max	8.3E+04	--	2E-06	--
378 249TH ST	1-Methylnaphthalene	mg/kg	0.0338	95UCL	4.0E+03	1.6E+01	8E-06	2E-09
378 249TH ST	2-Methylnaphthalene	mg/kg	0.121	95UCL	2.3E+02	--	5E-04	--
378 249TH ST	Benzene	µg/kg	0.257	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
378 249TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
378 249TH ST	Naphthalene	mg/kg	0.0593	95UCL	1.5E+02	4.0E+00	4E-04	2E-08
378 249TH ST	Pyrene	mg/kg	0.19	95UCL	1.7E+03	--	1E-04	--
378 249TH ST	Toluene	µg/kg	0.192	95UCL	4.8E+06	--	4E-08	--
378 249TH ST	TPH as Diesel	mg/kg	228.5	95UCL	1.3E+03	--	2E-01	--
378 249TH ST	TPH as Gasoline	mg/kg	0.0958	95UCL	7.6E+02	--	1E-04	--
378 249TH ST	TPH as Motor Oil	mg/kg	433.5	95UCL	3.3E+03	--	1E-01	--
383 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.37	Max	8.3E+04	--	5E-06	--
383 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.11	Max	8.5E+04	--	1E-06	--
383 249TH ST	1-Methylnaphthalene	mg/kg	0.446	95UCL	4.0E+03	1.6E+01	1E-04	3E-08
383 249TH ST	2-Methylnaphthalene	mg/kg	0.11	95UCL	2.3E+02	--	5E-04	--
383 249TH ST	Benzene	µg/kg	0.266	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
383 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	1.2E+03	3.5E+01	1E-04	5E-09
383 249TH ST	Ethylbenzene	µg/kg	0.27	Max	3.3E+06	4.8E+03	8E-08	6E-11
383 249TH ST	Naphthalene	mg/kg	0.00389	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
383 249TH ST	Pyrene	mg/kg	4.094	95UCL	1.7E+03	--	2E-03	--
383 249TH ST	Toluene	µg/kg	0.391	95UCL	4.8E+06	--	8E-08	--
383 249TH ST	TPH as Diesel	mg/kg	699.6	95UCL	1.3E+03	--	5E-01	--
383 249TH ST	TPH as Gasoline	mg/kg	0.204	95UCL	7.6E+02	--	3E-04	--
383 249TH ST	TPH as Motor Oil	mg/kg	1260	95UCL	3.3E+03	--	4E-01	--
383 249TH ST	Xylenes, Total	µg/kg	0.36	Max	5.6E+05	--	7E-07	--
402 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.47	Max	8.3E+04	--	6E-06	--
402 249TH ST	1-Methylnaphthalene	mg/kg	0.0117	95UCL	4.0E+03	1.6E+01	3E-06	8E-10
402 249TH ST	2-Methylnaphthalene	mg/kg	0.0529	95UCL	2.3E+02	--	2E-04	--

Appendix E
Detailed Risk Calculations

Table E-1
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤2 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
402 249TH ST	Benzene	µg/kg	0.705	95UCL	6.7E+04	2.2E+02	1E-05	3E-09
402 249TH ST	Ethylbenzene	µg/kg	0.23	Max	3.3E+06	4.8E+03	7E-08	5E-11
402 249TH ST	Naphthalene	mg/kg	0.0339	95UCL	1.5E+02	4.0E+00	2E-04	9E-09
402 249TH ST	Pyrene	mg/kg	0.364	95UCL	1.7E+03	--	2E-04	--
402 249TH ST	Toluene	µg/kg	0.358	95UCL	4.8E+06	--	8E-08	--
402 249TH ST	TPH as Diesel	mg/kg	433.3	95UCL	1.3E+03	--	3E-01	--
402 249TH ST	TPH as Gasoline	mg/kg	0.104	95UCL	7.6E+02	--	1E-04	--
402 249TH ST	TPH as Motor Oil	mg/kg	1112	95UCL	3.3E+03	--	3E-01	--
402 249TH ST	Xylenes, Total	µg/kg	0.19	Max	5.6E+05	--	3E-07	--
408 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.291	95UCL	8.3E+04	--	4E-06	--
408 249TH ST	1-Methylnaphthalene	mg/kg	0.0084	Max	4.0E+03	1.6E+01	2E-06	5E-10
408 249TH ST	2-Methylnaphthalene	mg/kg	0.0181	95UCL	2.3E+02	--	8E-05	--
408 249TH ST	Benzene	µg/kg	3.225	95UCL	6.7E+04	2.2E+02	5E-05	2E-08
408 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.4	Max	1.2E+03	3.5E+01	1E-03	4E-08
408 249TH ST	Bromodichloromethane	µg/kg	0.3	Max	4.3E+05	4.9E+02	7E-07	6E-10
408 249TH ST	Chromium, Hexavalent	mg/kg	0.37	Max	2.3E+02	1.3E+00	2E-03	3E-07
408 249TH ST	Naphthalene	mg/kg	0.0128	95UCL	1.5E+02	4.0E+00	9E-05	3E-09
408 249TH ST	Pyrene	mg/kg	0.101	95UCL	1.7E+03	--	6E-05	--
408 249TH ST	Toluene	µg/kg	1.005	95UCL	4.8E+06	--	2E-07	--
408 249TH ST	TPH as Diesel	mg/kg	75.67	95UCL	1.3E+03	--	6E-02	--
408 249TH ST	TPH as Gasoline	mg/kg	0.16	Max	7.6E+02	--	2E-04	--
408 249TH ST	TPH as Motor Oil	mg/kg	204.8	95UCL	3.3E+03	--	6E-02	--
408 249TH ST	Xylenes, Total	µg/kg	1.1	Max	5.6E+05	--	2E-06	--
412 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.399	95UCL	8.3E+04	--	5E-06	--
412 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.29	Max	8.5E+04	--	3E-06	--
412 249TH ST	1,4-Dichlorobenzene	µg/kg	0.19	Max	3.6E+06	2.8E+03	5E-08	7E-11
412 249TH ST	1-Methylnaphthalene	mg/kg	0.487	95UCL	4.0E+03	1.6E+01	1E-04	3E-08
412 249TH ST	2,4-Dinitrotoluene	mg/kg	0.18	Max	1.2E+02	1.6E+00	2E-03	1E-07
412 249TH ST	2-Methylnaphthalene	mg/kg	0.215	95UCL	2.3E+02	--	9E-04	--
412 249TH ST	Benzene	µg/kg	0.316	95UCL	6.7E+04	2.2E+02	5E-06	1E-09
412 249TH ST	Bromomethane	µg/kg	1.9	Max	8.8E+03	--	2E-04	--
412 249TH ST	Chromium, Hexavalent	mg/kg	0.41	Max	2.3E+02	1.3E+00	2E-03	3E-07
412 249TH ST	Ethylbenzene	µg/kg	0.79	Max	3.3E+06	4.8E+03	2E-07	2E-10
412 249TH ST	Naphthalene	mg/kg	0.0912	95UCL	1.5E+02	4.0E+00	6E-04	2E-08
412 249TH ST	Pyrene	mg/kg	0.309	95UCL	1.7E+03	--	2E-04	--
412 249TH ST	Toluene	µg/kg	0.187	95UCL	4.8E+06	--	4E-08	--
412 249TH ST	TPH as Diesel	mg/kg	766.6	95UCL	1.3E+03	--	6E-01	--
412 249TH ST	TPH as Gasoline	mg/kg	0.0616	95UCL	7.6E+02	--	8E-05	--
412 249TH ST	TPH as Motor Oil	mg/kg	1328	95UCL	3.3E+03	--	4E-01	--
412 249TH ST	Xylenes, Total	µg/kg	0.76	Max	5.6E+05	--	1E-06	--

Notes:

" -- " not applicable; COC = Constituent of Concern

Soil ≤2 ft bgs = less than or equal to 2 feet below ground surface

EF350 = exposure frequency of 350 days per year; 95UCL = 95 percent upper confidence limit

SSCG = Site-specific cleanup goals; SSCGnc = based on noncancer effects; SSCGc = based on cancer effects

EPC = exposure point concentration based on the 95UCLs; if not available, maximum detect (Max) was used as the EPC.

Bold + Shaded if COC-specific noncancer hazard >1 or COC-specific cancer risk >1E-06

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24401 MARBELLA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.21	Max	6.2E+05	4.7E+02	3E-07	5E-10
24401 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.12	Max	8.3E+04	--	2E-06	--
24401 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0098	95UCL	4.0E+03	1.6E+01	2E-06	6E-10
24401 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0154	95UCL	2.3E+02	--	7E-05	--
24401 MARBELLA AVE	Benzene	µg/kg	0.16	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24401 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.6	Max	1.2E+03	3.5E+01	1E-03	5E-08
24401 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.3E+02	1.3E+00	2E-03	3E-07
24401 MARBELLA AVE	Cobalt	mg/kg	11.74	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24401 MARBELLA AVE	Ethylbenzene	µg/kg	0.44	Max	3.3E+06	4.8E+03	1E-07	9E-11
24401 MARBELLA AVE	Methylene Chloride	µg/kg	5.6	Max	3.6E+05	5.3E+03	2E-05	1E-09
24401 MARBELLA AVE	Naphthalene	mg/kg	0.00867	95UCL	1.5E+02	4.0E+00	6E-05	2E-09
24401 MARBELLA AVE	Pyrene	mg/kg	0.158	95UCL	1.7E+03	--	9E-05	--
24401 MARBELLA AVE	Tetrachloroethene	µg/kg	0.42	Max	8.6E+04	5.5E+02	5E-06	8E-10
24401 MARBELLA AVE	Toluene	µg/kg	1.1	Max	4.8E+06	--	2E-07	--
24401 MARBELLA AVE	TPH as Diesel	mg/kg	99.63	95UCL	1.3E+03	--	8E-02	--
24401 MARBELLA AVE	TPH as Gasoline	mg/kg	0.0777	95UCL	7.6E+02	--	1E-04	--
24401 MARBELLA AVE	TPH as Motor Oil	mg/kg	254.9	95UCL	3.3E+03	--	8E-02	--
24401 MARBELLA AVE	Vanadium	mg/kg	39.73	95UCL	3.9E+02	--	1E-01	--
24402 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.00532	95UCL	4.0E+03	1.6E+01	1E-06	3E-10
24402 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.00976	95UCL	2.3E+02	--	4E-05	--
24402 NEPTUNE AVE	Benzene	µg/kg	0.201	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24402 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.39	Max	2.3E+02	1.3E+00	2E-03	3E-07
24402 NEPTUNE AVE	Cobalt	mg/kg	9.906	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24402 NEPTUNE AVE	Ethylbenzene	µg/kg	0.177	95UCL	3.3E+06	4.8E+03	5E-08	4E-11
24402 NEPTUNE AVE	Naphthalene	mg/kg	0.00201	95UCL	1.5E+02	4.0E+00	1E-05	5E-10
24402 NEPTUNE AVE	Pyrene	mg/kg	0.16	95UCL	1.7E+03	--	9E-05	--
24402 NEPTUNE AVE	Toluene	µg/kg	0.239	95UCL	4.8E+06	--	5E-08	--
24402 NEPTUNE AVE	TPH as Diesel	mg/kg	657.1	95UCL	1.3E+03	--	5E-01	--
24402 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.152	95UCL	7.6E+02	--	2E-04	--
24402 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1139	95UCL	3.3E+03	--	4E-01	--
24402 NEPTUNE AVE	Xylenes, Total	µg/kg	0.277	95UCL	5.6E+05	--	5E-07	--
24402 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.315	95UCL	8.3E+04	--	4E-06	--
24402 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0158	95UCL	4.0E+03	1.6E+01	4E-06	1E-09
24402 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0362	95UCL	2.3E+02	--	2E-04	--
24402 PANAMA AVE	Benzene	µg/kg	0.212	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24402 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.66	Max	1.2E+03	3.5E+01	5E-04	2E-08
24402 PANAMA AVE	Bromomethane	µg/kg	1.9	Max	8.8E+03	--	2E-04	--
24402 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.257	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24402 PANAMA AVE	Cobalt	mg/kg	11.28	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24402 PANAMA AVE	Ethylbenzene	µg/kg	0.171	95UCL	3.3E+06	4.8E+03	5E-08	4E-11
24402 PANAMA AVE	Naphthalene	mg/kg	0.00713	95UCL	1.5E+02	4.0E+00	5E-05	2E-09
24402 PANAMA AVE	Pyrene	mg/kg	0.164	95UCL	1.7E+03	--	1E-04	--
24402 PANAMA AVE	Toluene	µg/kg	0.408	95UCL	4.8E+06	--	9E-08	--
24402 PANAMA AVE	TPH as Diesel	mg/kg	659.4	95UCL	1.3E+03	--	5E-01	--
24402 PANAMA AVE	TPH as Gasoline	mg/kg	0.0744	95UCL	7.6E+02	--	1E-04	--
24402 PANAMA AVE	TPH as Motor Oil	mg/kg	1106	95UCL	3.3E+03	--	3E-01	--
24402 PANAMA AVE	Vanadium	mg/kg	35.84	95UCL	3.9E+02	--	9E-02	--
24402 PANAMA AVE	Xylenes, Total	µg/kg	0.366	95UCL	5.6E+05	--	7E-07	--
24402 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2531	95UCL	8.3E+04	--	3E-02	--
24402 RAVENNA AVE	1,2-Dichloropropane	µg/kg	0.65	Max	1.5E+04	8.3E+02	4E-05	8E-10
24402 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	419.9	95UCL	8.5E+04	--	5E-03	--
24402 RAVENNA AVE	1-Methylnaphthalene	mg/kg	5.424	95UCL	4.0E+03	1.6E+01	1E-03	4E-07
24402 RAVENNA AVE	2-Methylnaphthalene	mg/kg	8.024	95UCL	2.3E+02	--	4E-02	--
24402 RAVENNA AVE	Benzene	µg/kg	217.6	95UCL	6.7E+04	2.2E+02	3E-03	1E-06
24402 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.38	Max	1.2E+03	3.5E+01	3E-04	1E-08
24402 RAVENNA AVE	Bromomethane	µg/kg	1.1	Max	8.8E+03	--	1E-04	--
24402 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.16	95UCL	2.3E+02	1.3E+00	7E-04	1E-07
24402 RAVENNA AVE	Cobalt	mg/kg	10.99	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24402 RAVENNA AVE	Ethylbenzene	µg/kg	443.4	95UCL	3.3E+06	4.8E+03	1E-04	9E-08
24402 RAVENNA AVE	Naphthalene	mg/kg	3.854	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24402 RAVENNA AVE	Pyrene	mg/kg	0.627	95UCL	1.7E+03	--	4E-04	--
24402 RAVENNA AVE	Toluene	µg/kg	162.7	95UCL	4.8E+06	--	3E-05	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24402 RAVENNA AVE	TPH as Diesel	mg/kg	4343	95UCL	1.3E+03	--	3E+00	--
24402 RAVENNA AVE	TPH as Gasoline	mg/kg	324.5	95UCL	7.6E+02	--	4E-01	--
24402 RAVENNA AVE	TPH as Motor Oil	mg/kg	4423	95UCL	3.3E+03	--	1E+00	--
24402 RAVENNA AVE	Xylenes, Total	µg/kg	1969	95UCL	5.6E+05	--	4E-03	--
24403 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	3923	95UCL	8.3E+04	--	5E-02	--
24403 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	543.3	95UCL	8.5E+04	--	6E-03	--
24403 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	3.992	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24403 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	9.513	95UCL	2.3E+02	--	4E-02	--
24403 NEPTUNE AVE	Benzene	µg/kg	1617	95UCL	6.7E+04	2.2E+02	2E-02	7E-06
24403 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.38	Max	1.2E+03	3.5E+01	3E-04	1E-08
24403 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.38	Max	2.3E+02	1.3E+00	2E-03	3E-07
24403 NEPTUNE AVE	Cobalt	mg/kg	10.51	95UCL	2.3E+01	3.1E+04	5E-01	3E-10
24403 NEPTUNE AVE	Ethylbenzene	µg/kg	2715	95UCL	3.3E+06	4.8E+03	8E-04	6E-07
24403 NEPTUNE AVE	Naphthalene	mg/kg	4.579	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24403 NEPTUNE AVE	Pyrene	mg/kg	1.731	95UCL	1.7E+03	--	1E-03	--
24403 NEPTUNE AVE	Toluene	µg/kg	11.93	95UCL	4.8E+06	--	3E-06	--
24403 NEPTUNE AVE	TPH as Diesel	mg/kg	7662	95UCL	1.3E+03	--	6E+00	--
24403 NEPTUNE AVE	TPH as Gasoline	mg/kg	348.3	95UCL	7.6E+02	--	5E-01	--
24403 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7877	95UCL	3.3E+03	--	2E+00	--
24403 NEPTUNE AVE	Xylenes, Total	µg/kg	2109	95UCL	5.6E+05	--	4E-03	--
24403 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.205	95UCL	8.3E+04	--	3E-06	--
24403 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.00442	95UCL	4.0E+03	1.6E+01	1E-06	3E-10
24403 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0116	95UCL	2.3E+02	--	5E-05	--
24403 RAVENNA AVE	Benzene	µg/kg	0.163	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24403 RAVENNA AVE	Bromomethane	µg/kg	1.5	Max	8.8E+03	--	2E-04	--
24403 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.29	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24403 RAVENNA AVE	Cobalt	mg/kg	10.54	95UCL	2.3E+01	3.1E+04	5E-01	3E-10
24403 RAVENNA AVE	Naphthalene	mg/kg	0.0398	95UCL	1.5E+02	4.0E+00	3E-04	1E-08
24403 RAVENNA AVE	Pyrene	mg/kg	0.157	95UCL	1.7E+03	--	9E-05	--
24403 RAVENNA AVE	Toluene	µg/kg	0.264	95UCL	4.8E+06	--	6E-08	--
24403 RAVENNA AVE	TPH as Diesel	mg/kg	201	95UCL	1.3E+03	--	2E-01	--
24403 RAVENNA AVE	TPH as Gasoline	mg/kg	0.1	Max	7.6E+02	--	1E-04	--
24403 RAVENNA AVE	TPH as Motor Oil	mg/kg	571.6	95UCL	3.3E+03	--	2E-01	--
24403 RAVENNA AVE	Xylenes, Total	µg/kg	0.23	Max	5.6E+05	--	4E-07	--
24405 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.43	Max	8.3E+04	--	5E-06	--
24405 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0017	Max	4.0E+03	1.6E+01	4E-07	1E-10
24405 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00394	95UCL	2.3E+02	--	2E-05	--
24405 MARBELLA AVE	Benzene	µg/kg	0.408	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24405 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.27	Max	1.2E+03	3.5E+01	2E-04	8E-09
24405 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.6	Max	2.3E+02	1.3E+00	3E-03	5E-07
24405 MARBELLA AVE	Cobalt	mg/kg	11.62	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24405 MARBELLA AVE	Ethylbenzene	µg/kg	0.38	Max	3.3E+06	4.8E+03	1E-07	8E-11
24405 MARBELLA AVE	Naphthalene	mg/kg	0.00657	95UCL	1.5E+02	4.0E+00	4E-05	2E-09
24405 MARBELLA AVE	Pyrene	mg/kg	0.0527	95UCL	1.7E+03	--	3E-05	--
24405 MARBELLA AVE	Tetrachloroethene	µg/kg	0.74	Max	8.6E+04	5.5E+02	9E-06	1E-09
24405 MARBELLA AVE	Toluene	µg/kg	0.801	95UCL	4.8E+06	--	2E-07	--
24405 MARBELLA AVE	TPH as Diesel	mg/kg	253.8	95UCL	1.3E+03	--	2E-01	--
24405 MARBELLA AVE	TPH as Motor Oil	mg/kg	560.9	95UCL	3.3E+03	--	2E-01	--
24405 MARBELLA AVE	Xylenes, Total	µg/kg	2.4	Max	5.6E+05	--	4E-06	--
24406 MARBELLA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.18	Max	6.2E+05	4.7E+02	3E-07	4E-10
24406 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2191	95UCL	8.3E+04	--	3E-02	--
24406 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	6800	Max	8.5E+04	--	8E-02	--
24406 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.22	Max	3.6E+06	2.8E+03	6E-08	8E-11
24406 MARBELLA AVE	1-Methylnaphthalene	mg/kg	2.305	95UCL	4.0E+03	1.6E+01	6E-04	2E-07
24406 MARBELLA AVE	2-Methylnaphthalene	mg/kg	8.178	95UCL	2.3E+02	--	4E-02	--
24406 MARBELLA AVE	Benzene	µg/kg	1174	95UCL	6.7E+04	2.2E+02	2E-02	5E-06
24406 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.98	Max	1.2E+03	3.5E+01	8E-04	3E-08
24406 MARBELLA AVE	Bromomethane	µg/kg	180	Max	8.8E+03	--	2E-02	--
24406 MARBELLA AVE	Cobalt	mg/kg	11.47	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24406 MARBELLA AVE	Ethylbenzene	µg/kg	12000	Max	3.3E+06	4.8E+03	4E-03	3E-06
24406 MARBELLA AVE	Naphthalene	mg/kg	3.042	95UCL	1.5E+02	4.0E+00	2E-02	8E-07
24406 MARBELLA AVE	Pyrene	mg/kg	0.392	95UCL	1.7E+03	--	2E-04	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24406 MARBELLA AVE	Toluene	µg/kg	5595	95UCL	4.8E+06	--	1E-03	--
24406 MARBELLA AVE	TPH as Diesel	mg/kg	4158	95UCL	1.3E+03	--	3E+00	--
24406 MARBELLA AVE	TPH as Gasoline	mg/kg	620.6	95UCL	7.6E+02	--	8E-01	--
24406 MARBELLA AVE	TPH as Motor Oil	mg/kg	4025	95UCL	3.3E+03	--	1E+00	--
24406 MARBELLA AVE	Trichloroethene	µg/kg	0.16	Max	5.8E+03	1.2E+03	3E-05	1E-10
24406 MARBELLA AVE	Xylenes, Total	µg/kg	10613	95UCL	5.6E+05	--	2E-02	--
24406 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0437	95UCL	4.0E+03	1.6E+01	1E-05	3E-09
24406 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0146	95UCL	2.3E+02	--	6E-05	--
24406 NEPTUNE AVE	Benzene	µg/kg	0.153	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24406 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	3.3	Max	1.2E+03	3.5E+01	3E-03	1E-07
24406 NEPTUNE AVE	Cobalt	mg/kg	9.27	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24406 NEPTUNE AVE	Ethylbenzene	µg/kg	0.18	Max	3.3E+06	4.8E+03	6E-08	4E-11
24406 NEPTUNE AVE	Naphthalene	mg/kg	0.00897	95UCL	1.5E+02	4.0E+00	6E-05	2E-09
24406 NEPTUNE AVE	Pyrene	mg/kg	0.166	95UCL	1.7E+03	--	1E-04	--
24406 NEPTUNE AVE	TPH as Diesel	mg/kg	304.1	95UCL	1.3E+03	--	2E-01	--
24406 NEPTUNE AVE	TPH as Gasoline	mg/kg	1.1	Max	7.6E+02	--	1E-03	--
24406 NEPTUNE AVE	TPH as Motor Oil	mg/kg	685.1	95UCL	3.3E+03	--	2E-01	--
24406 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.61	Max	8.3E+04	--	7E-06	--
24406 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.12	Max	8.5E+04	--	1E-06	--
24406 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.67	Max	4.0E+03	1.6E+01	2E-04	4E-08
24406 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.261	95UCL	2.3E+02	--	1E-03	--
24406 PANAMA AVE	Benzene	µg/kg	0.199	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24406 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.214	95UCL	2.3E+02	1.3E+00	9E-04	2E-07
24406 PANAMA AVE	Cobalt	mg/kg	11.78	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24406 PANAMA AVE	Naphthalene	mg/kg	0.0575	95UCL	1.5E+02	4.0E+00	4E-04	1E-08
24406 PANAMA AVE	Pyrene	mg/kg	0.851	95UCL	1.7E+03	--	5E-04	--
24406 PANAMA AVE	Toluene	µg/kg	0.216	95UCL	4.8E+06	--	5E-08	--
24406 PANAMA AVE	TPH as Diesel	mg/kg	3216	95UCL	1.3E+03	--	3E+00	--
24406 PANAMA AVE	TPH as Motor Oil	mg/kg	6492	95UCL	3.3E+03	--	2E+00	--
24406 PANAMA AVE	Xylenes, Total	µg/kg	0.2	Max	5.6E+05	--	4E-07	--
24406 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.00376	95UCL	4.0E+03	1.6E+01	9E-07	2E-10
24406 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0121	95UCL	2.3E+02	--	5E-05	--
24406 RAVENNA AVE	Benzene	µg/kg	0.18	Max	6.7E+04	2.2E+02	3E-06	8E-10
24406 RAVENNA AVE	Bromomethane	µg/kg	1.3	Max	8.8E+03	--	2E-04	--
24406 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.6	Max	2.3E+02	1.3E+00	3E-03	5E-07
24406 RAVENNA AVE	Naphthalene	mg/kg	0.00605	95UCL	1.5E+02	4.0E+00	4E-05	2E-09
24406 RAVENNA AVE	Pyrene	mg/kg	0.174	95UCL	1.7E+03	--	1E-04	--
24406 RAVENNA AVE	Toluene	µg/kg	0.2	Max	4.8E+06	--	4E-08	--
24406 RAVENNA AVE	TPH as Diesel	mg/kg	458.5	95UCL	1.3E+03	--	4E-01	--
24406 RAVENNA AVE	TPH as Gasoline	mg/kg	0.1	95UCL	7.6E+02	--	1E-04	--
24406 RAVENNA AVE	TPH as Motor Oil	mg/kg	1303	95UCL	3.3E+03	--	4E-01	--
24409 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.471	95UCL	8.3E+04	--	6E-06	--
24409 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.11	Max	8.5E+04	--	1E-06	--
24409 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.19	Max	3.6E+06	2.8E+03	5E-08	7E-11
24409 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.213	95UCL	4.0E+03	1.6E+01	5E-05	1E-08
24409 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.431	95UCL	2.3E+02	--	2E-03	--
24409 NEPTUNE AVE	Benzene	µg/kg	0.277	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24409 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.43	Max	1.2E+03	3.5E+01	4E-04	1E-08
24409 NEPTUNE AVE	Ethylbenzene	µg/kg	5.14	95UCL	3.3E+06	4.8E+03	2E-06	1E-09
24409 NEPTUNE AVE	Naphthalene	mg/kg	0.0922	95UCL	1.5E+02	4.0E+00	6E-04	2E-08
24409 NEPTUNE AVE	Pyrene	mg/kg	0.812	95UCL	1.7E+03	--	5E-04	--
24409 NEPTUNE AVE	Toluene	µg/kg	0.355	95UCL	4.8E+06	--	7E-08	--
24409 NEPTUNE AVE	TPH as Diesel	mg/kg	2419	95UCL	1.3E+03	--	2E+00	--
24409 NEPTUNE AVE	TPH as Gasoline	mg/kg	22.01	95UCL	7.6E+02	--	3E-02	--
24409 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3523	95UCL	3.3E+03	--	1E+00	--
24409 NEPTUNE AVE	Xylenes, Total	µg/kg	0.783	95UCL	5.6E+05	--	1E-06	--
24409 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.127	95UCL	8.3E+04	--	2E-06	--
24409 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.006	Max	4.0E+03	1.6E+01	2E-06	4E-10
24409 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0173	95UCL	2.3E+02	--	8E-05	--
24409 RAVENNA AVE	Benzene	µg/kg	0.13	Max	6.7E+04	2.2E+02	2E-06	6E-10
24409 RAVENNA AVE	Cobalt	mg/kg	9.779	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24409 RAVENNA AVE	Naphthalene	mg/kg	0.0358	95UCL	1.5E+02	4.0E+00	2E-04	9E-09

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24409 RAVENNA AVE	Pyrene	mg/kg	0.27	95UCL	1.7E+03	--	2E-04	--
24409 RAVENNA AVE	Toluene	µg/kg	0.21	Max	4.8E+06	--	4E-08	--
24409 RAVENNA AVE	TPH as Diesel	mg/kg	473.9	95UCL	1.3E+03	--	4E-01	--
24409 RAVENNA AVE	TPH as Gasoline	mg/kg	0.12	95UCL	7.6E+02	--	2E-04	--
24409 RAVENNA AVE	TPH as Motor Oil	mg/kg	876.7	95UCL	3.3E+03	--	3E-01	--
24409 RAVENNA AVE	Xylenes, Total	µg/kg	0.49	Max	5.6E+05	--	9E-07	--
24410 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0175	95UCL	4.0E+03	1.6E+01	4E-06	1E-09
24410 PANAMA AVE	2,4-Dinitrotoluene	mg/kg	0.068	Max	1.2E+02	1.6E+00	6E-04	4E-08
24410 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0471	95UCL	2.3E+02	--	2E-04	--
24410 PANAMA AVE	Benzene	µg/kg	6.288	95UCL	6.7E+04	2.2E+02	9E-05	3E-08
24410 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.21	Max	1.2E+03	3.5E+01	2E-04	6E-09
24410 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
24410 PANAMA AVE	Cobalt	mg/kg	10.06	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24410 PANAMA AVE	Naphthalene	mg/kg	0.0111	95UCL	1.5E+02	4.0E+00	7E-05	3E-09
24410 PANAMA AVE	Pyrene	mg/kg	0.235	95UCL	1.7E+03	--	1E-04	--
24410 PANAMA AVE	Tetrachloroethene	µg/kg	0.23	Max	8.6E+04	5.5E+02	3E-06	4E-10
24410 PANAMA AVE	Toluene	µg/kg	0.736	95UCL	4.8E+06	--	2E-07	--
24410 PANAMA AVE	TPH as Diesel	mg/kg	329	95UCL	1.3E+03	--	3E-01	--
24410 PANAMA AVE	TPH as Gasoline	mg/kg	0.058	Max	7.6E+02	--	8E-05	--
24410 PANAMA AVE	TPH as Motor Oil	mg/kg	1003	95UCL	3.3E+03	--	3E-01	--
24410 PANAMA AVE	Trichloroethene	µg/kg	0.2	Max	5.8E+03	1.2E+03	4E-05	2E-10
24410 PANAMA AVE	Xylenes, Total	µg/kg	0.61	Max	5.6E+05	--	1E-06	--
24411 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	91.14	95UCL	8.3E+04	--	1E-03	--
24411 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	82	Max	8.5E+04	--	1E-03	--
24411 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.33	Max	3.6E+06	2.8E+03	9E-08	1E-10
24411 MARBELLA AVE	1-Methylnaphthalene	mg/kg	2.443	95UCL	4.0E+03	1.6E+01	6E-04	2E-07
24411 MARBELLA AVE	2-Methylnaphthalene	mg/kg	5.897	95UCL	2.3E+02	--	3E-02	--
24411 MARBELLA AVE	Benzene	µg/kg	0.198	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24411 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.253	95UCL	1.2E+03	3.5E+01	2E-04	7E-09
24411 MARBELLA AVE	Cobalt	mg/kg	11.47	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24411 MARBELLA AVE	Ethylbenzene	µg/kg	76	Max	3.3E+06	4.8E+03	2E-05	2E-08
24411 MARBELLA AVE	Naphthalene	mg/kg	0.911	95UCL	1.5E+02	4.0E+00	6E-03	2E-07
24411 MARBELLA AVE	Pyrene	mg/kg	1.732	95UCL	1.7E+03	--	1E-03	--
24411 MARBELLA AVE	Tetrachloroethene	µg/kg	0.438	95UCL	8.6E+04	5.5E+02	5E-06	8E-10
24411 MARBELLA AVE	Toluene	µg/kg	14	95UCL	4.8E+06	--	3E-06	--
24411 MARBELLA AVE	TPH as Diesel	mg/kg	5659	95UCL	1.3E+03	--	4E+00	--
24411 MARBELLA AVE	TPH as Gasoline	mg/kg	0.165	95UCL	7.6E+02	--	2E-04	--
24411 MARBELLA AVE	TPH as Motor Oil	mg/kg	8910	95UCL	3.3E+03	--	3E+00	--
24411 MARBELLA AVE	Trichloroethene	µg/kg	0.48	Max	5.8E+03	1.2E+03	8E-05	4E-10
24411 MARBELLA AVE	Xylenes, Total	µg/kg	24.5	95UCL	5.6E+05	--	4E-05	--
24411 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	6126	95UCL	8.3E+04	--	7E-02	--
24411 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	10000	Max	8.5E+04	--	1E-01	--
24411 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.2	Max	3.6E+06	2.8E+03	6E-08	7E-11
24411 PANAMA AVE	1-Methylnaphthalene	mg/kg	3.215	95UCL	4.0E+03	1.6E+01	8E-04	2E-07
24411 PANAMA AVE	2-Methylnaphthalene	mg/kg	7.3	95UCL	2.3E+02	--	3E-02	--
24411 PANAMA AVE	Benzene	µg/kg	1239	95UCL	6.7E+04	2.2E+02	2E-02	6E-06
24411 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.3	Max	1.2E+03	3.5E+01	1E-03	4E-08
24411 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.33	Max	2.3E+02	1.3E+00	1E-03	3E-07
24411 PANAMA AVE	Cobalt	mg/kg	10.59	95UCL	2.3E+01	3.1E+04	5E-01	3E-10
24411 PANAMA AVE	Ethylbenzene	µg/kg	1560	95UCL	3.3E+06	4.8E+03	5E-04	3E-07
24411 PANAMA AVE	Naphthalene	mg/kg	3.738	95UCL	1.5E+02	4.0E+00	3E-02	9E-07
24411 PANAMA AVE	Pyrene	mg/kg	0.202	95UCL	1.7E+03	--	1E-04	--
24411 PANAMA AVE	Toluene	µg/kg	478.9	95UCL	4.8E+06	--	1E-04	--
24411 PANAMA AVE	TPH as Diesel	mg/kg	3709	95UCL	1.3E+03	--	3E+00	--
24411 PANAMA AVE	TPH as Gasoline	mg/kg	763.7	95UCL	7.6E+02	--	1E+00	--
24411 PANAMA AVE	TPH as Motor Oil	mg/kg	3168	95UCL	3.3E+03	--	1E+00	--
24411 PANAMA AVE	Xylenes, Total	µg/kg	10411	95UCL	5.6E+05	--	2E-02	--
24412 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	643.2	95UCL	8.3E+04	--	8E-03	--
24412 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	150	Max	8.5E+04	--	2E-03	--
24412 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.34	Max	3.6E+06	2.8E+03	9E-08	1E-10
24412 MARBELLA AVE	1-Methylnaphthalene	mg/kg	5.269	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24412 MARBELLA AVE	2-Methylnaphthalene	mg/kg	11.96	95UCL	2.3E+02	--	5E-02	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24412 MARBELLA AVE	Benzene	µg/kg	214.2	95UCL	6.7E+04	2.2E+02	3E-03	1E-06
24412 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1	Max	1.2E+03	3.5E+01	8E-04	3E-08
24412 MARBELLA AVE	Bromomethane	µg/kg	6.2	Max	8.8E+03	--	7E-04	--
24412 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.164	95UCL	2.3E+02	1.3E+00	7E-04	1E-07
24412 MARBELLA AVE	Cobalt	mg/kg	11.98	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24412 MARBELLA AVE	Ethylbenzene	µg/kg	665.6	95UCL	3.3E+06	4.8E+03	2E-04	1E-07
24412 MARBELLA AVE	Naphthalene	mg/kg	7.765	95UCL	1.5E+02	4.0E+00	5E-02	2E-06
24412 MARBELLA AVE	Pyrene	mg/kg	0.291	95UCL	1.7E+03	--	2E-04	--
24412 MARBELLA AVE	Toluene	µg/kg	38.67	95UCL	4.8E+06	--	8E-06	--
24412 MARBELLA AVE	TPH as Diesel	mg/kg	7238	95UCL	1.3E+03	--	6E+00	--
24412 MARBELLA AVE	TPH as Gasoline	mg/kg	775.7	95UCL	7.6E+02	--	1E+00	--
24412 MARBELLA AVE	TPH as Motor Oil	mg/kg	7613	95UCL	3.3E+03	--	2E+00	--
24412 MARBELLA AVE	Vanadium	mg/kg	40.28	95UCL	3.9E+02	--	1E-01	--
24412 MARBELLA AVE	Xylenes, Total	µg/kg	251.1	95UCL	5.6E+05	--	5E-04	--
24412 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1375	95UCL	8.3E+04	--	2E-02	--
24412 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	9.511	95UCL	8.5E+04	--	1E-04	--
24412 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.37	Max	3.6E+06	2.8E+03	1E-07	1E-10
24412 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.978	95UCL	4.0E+03	1.6E+01	7E-04	2E-07
24412 RAVENNA AVE	2-Methylnaphthalene	mg/kg	4.31	95UCL	2.3E+02	--	2E-02	--
24412 RAVENNA AVE	Benzene	µg/kg	19.39	95UCL	6.7E+04	2.2E+02	3E-04	9E-08
24412 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.18	Max	1.2E+03	3.5E+01	2E-04	5E-09
24412 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	2.3E+02	1.3E+00	1E-03	2E-07
24412 RAVENNA AVE	Cobalt	mg/kg	9.664	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24412 RAVENNA AVE	Ethylbenzene	µg/kg	413	95UCL	3.3E+06	4.8E+03	1E-04	9E-08
24412 RAVENNA AVE	Naphthalene	mg/kg	1.707	95UCL	1.5E+02	4.0E+00	1E-02	4E-07
24412 RAVENNA AVE	Pyrene	mg/kg	0.389	95UCL	1.7E+03	--	2E-04	--
24412 RAVENNA AVE	Toluene	µg/kg	1.207	95UCL	4.8E+06	--	3E-07	--
24412 RAVENNA AVE	TPH as Diesel	mg/kg	1905	95UCL	1.3E+03	--	2E+00	--
24412 RAVENNA AVE	TPH as Gasoline	mg/kg	223.7	95UCL	7.6E+02	--	3E-01	--
24412 RAVENNA AVE	TPH as Motor Oil	mg/kg	2204	95UCL	3.3E+03	--	7E-01	--
24412 RAVENNA AVE	Xylenes, Total	µg/kg	247.8	95UCL	5.6E+05	--	4E-04	--
24413 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.224	95UCL	8.3E+04	--	3E-06	--
24413 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	160	Max	3.6E+06	2.8E+03	4E-05	6E-08
24413 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	3.662	95UCL	4.0E+03	1.6E+01	9E-04	2E-07
24413 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	5.103	95UCL	2.3E+02	--	2E-02	--
24413 NEPTUNE AVE	Benzene	µg/kg	4.685	95UCL	6.7E+04	2.2E+02	7E-05	2E-08
24413 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.5	Max	1.2E+03	3.5E+01	1E-03	4E-08
24413 NEPTUNE AVE	Bromomethane	µg/kg	2.3	Max	8.8E+03	--	3E-04	--
24413 NEPTUNE AVE	Ethylbenzene	µg/kg	550	Max	3.3E+06	4.8E+03	2E-04	1E-07
24413 NEPTUNE AVE	Naphthalene	mg/kg	1.981	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24413 NEPTUNE AVE	Pyrene	mg/kg	0.305	95UCL	1.7E+03	--	2E-04	--
24413 NEPTUNE AVE	Toluene	µg/kg	5.346	95UCL	4.8E+06	--	1E-06	--
24413 NEPTUNE AVE	TPH as Diesel	mg/kg	2757	95UCL	1.3E+03	--	2E+00	--
24413 NEPTUNE AVE	TPH as Gasoline	mg/kg	110.7	95UCL	7.6E+02	--	2E-01	--
24413 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3135	95UCL	3.3E+03	--	1E+00	--
24413 NEPTUNE AVE	Xylenes, Total	µg/kg	52	Max	5.6E+05	--	9E-05	--
24413 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.14	Max	8.3E+04	--	2E-06	--
24413 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	1	Max	3.6E+06	2.8E+03	3E-07	4E-10
24413 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.025	Max	4.0E+03	1.6E+01	6E-06	2E-09
24413 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0117	95UCL	2.3E+02	--	5E-05	--
24413 RAVENNA AVE	Benzene	µg/kg	0.594	95UCL	6.7E+04	2.2E+02	9E-06	3E-09
24413 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	6.6	Max	1.2E+03	3.5E+01	5E-03	2E-07
24413 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	2.3E+02	1.3E+00	2E-03	3E-07
24413 RAVENNA AVE	Cobalt	mg/kg	9.34	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24413 RAVENNA AVE	Ethylbenzene	µg/kg	0.2	Max	3.3E+06	4.8E+03	6E-08	4E-11
24413 RAVENNA AVE	Naphthalene	mg/kg	0.00236	95UCL	1.5E+02	4.0E+00	2E-05	6E-10
24413 RAVENNA AVE	Pyrene	mg/kg	0.176	95UCL	1.7E+03	--	1E-04	--
24413 RAVENNA AVE	Tetrachloroethene	µg/kg	0.25	Max	8.6E+04	5.5E+02	3E-06	5E-10
24413 RAVENNA AVE	Toluene	µg/kg	1.075	95UCL	4.8E+06	--	2E-07	--
24413 RAVENNA AVE	TPH as Diesel	mg/kg	289.5	95UCL	1.3E+03	--	2E-01	--
24413 RAVENNA AVE	TPH as Gasoline	mg/kg	0.134	95UCL	7.6E+02	--	2E-04	--
24413 RAVENNA AVE	TPH as Motor Oil	mg/kg	749.6	95UCL	3.3E+03	--	2E-01	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24413 RAVENNA AVE	Xylenes, Total	µg/kg	0.508	95UCL	5.6E+05	--	9E-07	--
24416 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2188	95UCL	8.3E+04	--	3E-02	--
24416 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	390.9	95UCL	8.5E+04	--	5E-03	--
24416 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.46	Max	3.6E+06	2.8E+03	1E-07	2E-10
24416 MARBELLA AVE	1-Methylnaphthalene	mg/kg	7.102	95UCL	4.0E+03	1.6E+01	2E-03	5E-07
24416 MARBELLA AVE	2-Methylnaphthalene	mg/kg	10.46	95UCL	2.3E+02	--	5E-02	--
24416 MARBELLA AVE	Benzene	µg/kg	1207	95UCL	6.7E+04	2.2E+02	2E-02	6E-06
24416 MARBELLA AVE	Cobalt	mg/kg	10.38	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24416 MARBELLA AVE	Ethylbenzene	µg/kg	2248	95UCL	3.3E+06	4.8E+03	7E-04	5E-07
24416 MARBELLA AVE	Naphthalene	mg/kg	4.189	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24416 MARBELLA AVE	Pyrene	mg/kg	2.957	95UCL	1.7E+03	--	2E-03	--
24416 MARBELLA AVE	Toluene	µg/kg	183.2	95UCL	4.8E+06	--	4E-05	--
24416 MARBELLA AVE	TPH as Diesel	mg/kg	4740	95UCL	1.3E+03	--	4E+00	--
24416 MARBELLA AVE	TPH as Gasoline	mg/kg	652.5	95UCL	7.6E+02	--	9E-01	--
24416 MARBELLA AVE	TPH as Motor Oil	mg/kg	5661	95UCL	3.3E+03	--	2E+00	--
24416 MARBELLA AVE	Vanadium	mg/kg	36.87	95UCL	3.9E+02	--	9E-02	--
24416 MARBELLA AVE	Xylenes, Total	µg/kg	4537	95UCL	5.6E+05	--	8E-03	--
24416 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.494	95UCL	4.0E+03	1.6E+01	1E-04	3E-08
24416 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.671	95UCL	2.3E+02	--	3E-03	--
24416 NEPTUNE AVE	Benzene	µg/kg	0.207	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24416 NEPTUNE AVE	Ethylbenzene	µg/kg	0.2	Max	3.3E+06	4.8E+03	6E-08	4E-11
24416 NEPTUNE AVE	Naphthalene	mg/kg	0.18	95UCL	1.5E+02	4.0E+00	1E-03	5E-08
24416 NEPTUNE AVE	Pyrene	mg/kg	0.314	95UCL	1.7E+03	--	2E-04	--
24416 NEPTUNE AVE	TPH as Diesel	mg/kg	15365	95UCL	1.3E+03	--	1E+01	--
24416 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.0988	95UCL	7.6E+02	--	1E-04	--
24416 NEPTUNE AVE	TPH as Motor Oil	mg/kg	29203	95UCL	3.3E+03	--	9E+00	--
24416 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0148	95UCL	2.3E+02	--	7E-05	--
24416 PANAMA AVE	Benzene	µg/kg	0.277	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24416 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	1.2E+03	3.5E+01	3E-04	1E-08
24416 PANAMA AVE	Cobalt	mg/kg	9.869	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24416 PANAMA AVE	Ethylbenzene	µg/kg	0.21	Max	3.3E+06	4.8E+03	6E-08	4E-11
24416 PANAMA AVE	Naphthalene	mg/kg	0.012	Max	1.5E+02	4.0E+00	8E-05	3E-09
24416 PANAMA AVE	Pyrene	mg/kg	0.12	95UCL	1.7E+03	--	7E-05	--
24416 PANAMA AVE	Toluene	µg/kg	0.234	95UCL	4.8E+06	--	5E-08	--
24416 PANAMA AVE	TPH as Diesel	mg/kg	305.1	95UCL	1.3E+03	--	2E-01	--
24416 PANAMA AVE	TPH as Gasoline	mg/kg	0.101	95UCL	7.6E+02	--	1E-04	--
24416 PANAMA AVE	TPH as Motor Oil	mg/kg	955.2	95UCL	3.3E+03	--	3E-01	--
24416 PANAMA AVE	Xylenes, Total	µg/kg	0.2	Max	5.6E+05	--	4E-07	--
24416 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	147.8	95UCL	8.3E+04	--	2E-03	--
24416 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	13.66	95UCL	8.5E+04	--	2E-04	--
24416 RAVENNA AVE	1-Methylnaphthalene	mg/kg	6.017	95UCL	4.0E+03	1.6E+01	2E-03	4E-07
24416 RAVENNA AVE	2-Methylnaphthalene	mg/kg	12.49	95UCL	2.3E+02	--	5E-02	--
24416 RAVENNA AVE	Benzene	µg/kg	0.241	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24416 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.174	95UCL	2.3E+02	1.3E+00	7E-04	1E-07
24416 RAVENNA AVE	Ethylbenzene	µg/kg	67.72	95UCL	3.3E+06	4.8E+03	2E-05	1E-08
24416 RAVENNA AVE	Naphthalene	mg/kg	1.894	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24416 RAVENNA AVE	Pyrene	mg/kg	2.169	95UCL	1.7E+03	--	1E-03	--
24416 RAVENNA AVE	Toluene	µg/kg	0.175	95UCL	4.8E+06	--	4E-08	--
24416 RAVENNA AVE	TPH as Diesel	mg/kg	5906	95UCL	1.3E+03	--	5E+00	--
24416 RAVENNA AVE	TPH as Gasoline	mg/kg	141.1	95UCL	7.6E+02	--	2E-01	--
24416 RAVENNA AVE	TPH as Motor Oil	mg/kg	7915	95UCL	3.3E+03	--	2E+00	--
24416 RAVENNA AVE	Xylenes, Total	µg/kg	13.52	95UCL	5.6E+05	--	2E-05	--
24417 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.19	Max	8.3E+04	--	2E-06	--
24417 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0011	Max	4.0E+03	1.6E+01	3E-07	7E-11
24417 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0025	Max	2.3E+02	--	1E-05	--
24417 MARBELLA AVE	Benzene	µg/kg	0.28	Max	6.7E+04	2.2E+02	4E-06	1E-09
24417 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.39	Max	2.3E+02	1.3E+00	2E-03	3E-07
24417 MARBELLA AVE	Cobalt	mg/kg	13.9	Max	2.3E+01	3.1E+04	6E-01	5E-10
24417 MARBELLA AVE	Naphthalene	mg/kg	0.0029	Max	1.5E+02	4.0E+00	2E-05	7E-10
24417 MARBELLA AVE	Pyrene	mg/kg	0.09	Max	1.7E+03	--	5E-05	--
24417 MARBELLA AVE	Tetrachloroethene	µg/kg	0.41	Max	8.6E+04	5.5E+02	5E-06	7E-10
24417 MARBELLA AVE	Toluene	µg/kg	0.22	Max	4.8E+06	--	5E-08	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24417 MARBELLA AVE	TPH as Diesel	mg/kg	85	Max	1.3E+03	--	7E-02	--
24417 MARBELLA AVE	TPH as Motor Oil	mg/kg	250	Max	3.3E+03	--	8E-02	--
24417 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.238	95UCL	8.3E+04	--	3E-06	--
24417 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0112	95UCL	4.0E+03	1.6E+01	3E-06	7E-10
24417 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0311	95UCL	2.3E+02	--	1E-04	--
24417 PANAMA AVE	Benzene	µg/kg	1.179	95UCL	6.7E+04	2.2E+02	2E-05	5E-09
24417 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.22	Max	1.2E+03	3.5E+01	2E-04	6E-09
24417 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.52	Max	2.3E+02	1.3E+00	2E-03	4E-07
24417 PANAMA AVE	Cobalt	mg/kg	9.272	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24417 PANAMA AVE	Ethylbenzene	µg/kg	2.8	95UCL	3.3E+06	4.8E+03	9E-07	6E-10
24417 PANAMA AVE	Naphthalene	mg/kg	0.00962	95UCL	1.5E+02	4.0E+00	6E-05	2E-09
24417 PANAMA AVE	Pyrene	mg/kg	0.282	95UCL	1.7E+03	--	2E-04	--
24417 PANAMA AVE	Toluene	µg/kg	0.264	95UCL	4.8E+06	--	6E-08	--
24417 PANAMA AVE	TPH as Diesel	mg/kg	422.4	95UCL	1.3E+03	--	3E-01	--
24417 PANAMA AVE	TPH as Gasoline	mg/kg	0.095	95UCL	7.6E+02	--	1E-04	--
24417 PANAMA AVE	TPH as Motor Oil	mg/kg	1514	95UCL	3.3E+03	--	5E-01	--
24417 PANAMA AVE	Xylenes, Total	µg/kg	0.247	95UCL	5.6E+05	--	4E-07	--
24419 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	52	Max	8.3E+04	--	6E-04	--
24419 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.88	Max	8.5E+04	--	1E-05	--
24419 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.521	95UCL	4.0E+03	1.6E+01	1E-04	3E-08
24419 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	1.105	95UCL	2.3E+02	--	5E-03	--
24419 NEPTUNE AVE	Benzene	µg/kg	1.167	95UCL	6.7E+04	2.2E+02	2E-05	5E-09
24419 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.66	Max	1.2E+03	3.5E+01	5E-04	2E-08
24419 NEPTUNE AVE	Bromodichloromethane	µg/kg	0.57	Max	4.3E+05	4.9E+02	1E-06	1E-09
24419 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.32	Max	2.3E+02	1.3E+00	1E-03	3E-07
24419 NEPTUNE AVE	Ethylbenzene	µg/kg	8.351	95UCL	3.3E+06	4.8E+03	3E-06	2E-09
24419 NEPTUNE AVE	Naphthalene	mg/kg	0.252	95UCL	1.5E+02	4.0E+00	2E-03	6E-08
24419 NEPTUNE AVE	Pyrene	mg/kg	0.461	95UCL	1.7E+03	--	3E-04	--
24419 NEPTUNE AVE	Toluene	µg/kg	0.48	Max	4.8E+06	--	1E-07	--
24419 NEPTUNE AVE	TPH as Diesel	mg/kg	1691	95UCL	1.3E+03	--	1E+00	--
24419 NEPTUNE AVE	TPH as Gasoline	mg/kg	19.87	95UCL	7.6E+02	--	3E-02	--
24419 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1862	95UCL	3.3E+03	--	6E-01	--
24419 NEPTUNE AVE	Xylenes, Total	µg/kg	0.696	95UCL	5.6E+05	--	1E-06	--
24419 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	9.292	95UCL	8.3E+04	--	1E-04	--
24419 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.5	Max	8.5E+04	--	6E-06	--
24419 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.19	Max	3.6E+06	2.8E+03	5E-08	7E-11
24419 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0874	95UCL	4.0E+03	1.6E+01	2E-05	6E-09
24419 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.217	95UCL	2.3E+02	--	1E-03	--
24419 RAVENNA AVE	Benzene	µg/kg	0.276	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24419 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.165	95UCL	2.3E+02	1.3E+00	7E-04	1E-07
24419 RAVENNA AVE	Ethylbenzene	µg/kg	1.066	95UCL	3.3E+06	4.8E+03	3E-07	2E-10
24419 RAVENNA AVE	Naphthalene	mg/kg	0.0248	95UCL	1.5E+02	4.0E+00	2E-04	6E-09
24419 RAVENNA AVE	Pyrene	mg/kg	0.301	95UCL	1.7E+03	--	2E-04	--
24419 RAVENNA AVE	Toluene	µg/kg	0.23	95UCL	4.8E+06	--	5E-08	--
24419 RAVENNA AVE	TPH as Diesel	mg/kg	369.8	95UCL	1.3E+03	--	3E-01	--
24419 RAVENNA AVE	TPH as Gasoline	mg/kg	1.489	95UCL	7.6E+02	--	2E-03	--
24419 RAVENNA AVE	TPH as Motor Oil	mg/kg	388	95UCL	3.3E+03	--	1E-01	--
24419 RAVENNA AVE	Xylenes, Total	µg/kg	0.94	95UCL	5.6E+05	--	2E-06	--
24420 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.422	95UCL	8.3E+04	--	5E-06	--
24420 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.25	Max	8.5E+04	--	3E-06	--
24420 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.15	Max	3.6E+06	2.8E+03	4E-08	5E-11
24420 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0173	95UCL	4.0E+03	1.6E+01	4E-06	1E-09
24420 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0975	95UCL	2.3E+02	--	4E-04	--
24420 PANAMA AVE	Benzene	µg/kg	0.171	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24420 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.3E+02	1.3E+00	9E-04	2E-07
24420 PANAMA AVE	Naphthalene	mg/kg	0.0414	95UCL	1.5E+02	4.0E+00	3E-04	1E-08
24420 PANAMA AVE	Pyrene	mg/kg	0.418	95UCL	1.7E+03	--	2E-04	--
24420 PANAMA AVE	Toluene	µg/kg	0.282	95UCL	4.8E+06	--	6E-08	--
24420 PANAMA AVE	TPH as Diesel	mg/kg	1919	95UCL	1.3E+03	--	2E+00	--
24420 PANAMA AVE	TPH as Motor Oil	mg/kg	5919	95UCL	3.3E+03	--	2E+00	--
24420 PANAMA AVE	Xylenes, Total	µg/kg	0.259	95UCL	5.6E+05	--	5E-07	--
24421 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	4056	95UCL	8.3E+04	--	5E-02	--

Appendix E
Detailed Risk Calculations

Table E-2
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Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24421 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	5200	Max	8.5E+04	--	6E-02	--
24421 PANAMA AVE	1-Methylnaphthalene	mg/kg	4.849	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24421 PANAMA AVE	2-Methylnaphthalene	mg/kg	8.791	95UCL	2.3E+02	--	4E-02	--
24421 PANAMA AVE	Benzene	µg/kg	9.336	95UCL	6.7E+04	2.2E+02	1E-04	4E-08
24421 PANAMA AVE	Ethylbenzene	µg/kg	3600	Max	3.3E+06	4.8E+03	1E-03	8E-07
24421 PANAMA AVE	Naphthalene	mg/kg	5.176	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24421 PANAMA AVE	Pyrene	mg/kg	0.425	95UCL	1.7E+03	--	3E-04	--
24421 PANAMA AVE	Toluene	µg/kg	157.8	95UCL	4.8E+06	--	3E-05	--
24421 PANAMA AVE	TPH as Diesel	mg/kg	4142	95UCL	1.3E+03	--	3E+00	--
24421 PANAMA AVE	TPH as Gasoline	mg/kg	327.1	95UCL	7.6E+02	--	4E-01	--
24421 PANAMA AVE	TPH as Motor Oil	mg/kg	2908	95UCL	3.3E+03	--	9E-01	--
24421 PANAMA AVE	Xylenes, Total	µg/kg	20000	Max	5.6E+05	--	4E-02	--
24422 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.355	95UCL	8.3E+04	--	4E-06	--
24422 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	41	Max	8.5E+04	--	5E-04	--
24422 MARBELLA AVE	1-Methylnaphthalene	mg/kg	1.245	95UCL	4.0E+03	1.6E+01	3E-04	8E-08
24422 MARBELLA AVE	2-Methylnaphthalene	mg/kg	1.914	95UCL	2.3E+02	--	8E-03	--
24422 MARBELLA AVE	Benzene	µg/kg	1.302	95UCL	6.7E+04	2.2E+02	2E-05	6E-09
24422 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.78	Max	1.2E+03	3.5E+01	6E-04	2E-08
24422 MARBELLA AVE	Bromomethane	µg/kg	380	Max	8.8E+03	--	4E-02	--
24422 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.26	Max	2.3E+02	1.3E+00	1E-03	2E-07
24422 MARBELLA AVE	Ethylbenzene	µg/kg	5.883	95UCL	3.3E+06	4.8E+03	2E-06	1E-09
24422 MARBELLA AVE	Naphthalene	mg/kg	0.681	95UCL	1.5E+02	4.0E+00	5E-03	2E-07
24422 MARBELLA AVE	Pyrene	mg/kg	0.812	95UCL	1.7E+03	--	5E-04	--
24422 MARBELLA AVE	Tetrachloroethene	µg/kg	0.27	Max	8.6E+04	5.5E+02	3E-06	5E-10
24422 MARBELLA AVE	Toluene	µg/kg	0.619	95UCL	4.8E+06	--	1E-07	--
24422 MARBELLA AVE	TPH as Diesel	mg/kg	2025	95UCL	1.3E+03	--	2E+00	--
24422 MARBELLA AVE	TPH as Gasoline	mg/kg	27.86	95UCL	7.6E+02	--	4E-02	--
24422 MARBELLA AVE	TPH as Motor Oil	mg/kg	2571	95UCL	3.3E+03	--	8E-01	--
24422 MARBELLA AVE	Xylenes, Total	µg/kg	0.652	95UCL	5.6E+05	--	1E-06	--
24422 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.21	Max	8.3E+04	--	3E-06	--
24422 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.2	Max	4.0E+03	1.6E+01	3E-04	8E-08
24422 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.146	95UCL	2.3E+02	--	6E-04	--
24422 NEPTUNE AVE	Benzene	µg/kg	0.783	95UCL	6.7E+04	2.2E+02	1E-05	4E-09
24422 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.3	Max	1.2E+03	3.5E+01	3E-04	9E-09
24422 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.223	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24422 NEPTUNE AVE	Naphthalene	mg/kg	0.0277	95UCL	1.5E+02	4.0E+00	2E-04	7E-09
24422 NEPTUNE AVE	Pyrene	mg/kg	0.349	95UCL	1.7E+03	--	2E-04	--
24422 NEPTUNE AVE	Toluene	µg/kg	0.899	95UCL	4.8E+06	--	2E-07	--
24422 NEPTUNE AVE	TPH as Diesel	mg/kg	485.1	95UCL	1.3E+03	--	4E-01	--
24422 NEPTUNE AVE	TPH as Gasoline	mg/kg	7.942	95UCL	7.6E+02	--	1E-02	--
24422 NEPTUNE AVE	TPH as Motor Oil	mg/kg	970.3	95UCL	3.3E+03	--	3E-01	--
24422 NEPTUNE AVE	Xylenes, Total	µg/kg	0.36	Max	5.6E+05	--	7E-07	--
24422 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2815	95UCL	8.3E+04	--	3E-02	--
24422 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	140.1	95UCL	8.5E+04	--	2E-03	--
24422 RAVENNA AVE	1-Methylnaphthalene	mg/kg	11.35	95UCL	4.0E+03	1.6E+01	3E-03	7E-07
24422 RAVENNA AVE	2-Methylnaphthalene	mg/kg	19.31	95UCL	2.3E+02	--	8E-02	--
24422 RAVENNA AVE	Benzene	µg/kg	28.7	95UCL	6.7E+04	2.2E+02	4E-04	1E-07
24422 RAVENNA AVE	Bromomethane	µg/kg	0.78	Max	8.8E+03	--	9E-05	--
24422 RAVENNA AVE	Ethylbenzene	µg/kg	580.5	95UCL	3.3E+06	4.8E+03	2E-04	1E-07
24422 RAVENNA AVE	Naphthalene	mg/kg	5.456	95UCL	1.5E+02	4.0E+00	4E-02	1E-06
24422 RAVENNA AVE	Pyrene	mg/kg	1.34	95UCL	1.7E+03	--	8E-04	--
24422 RAVENNA AVE	Toluene	µg/kg	11.76	95UCL	4.8E+06	--	3E-06	--
24422 RAVENNA AVE	TPH as Diesel	mg/kg	6690	95UCL	1.3E+03	--	5E+00	--
24422 RAVENNA AVE	TPH as Gasoline	mg/kg	158.1	95UCL	7.6E+02	--	2E-01	--
24422 RAVENNA AVE	TPH as Motor Oil	mg/kg	9013	95UCL	3.3E+03	--	3E+00	--
24422 RAVENNA AVE	Xylenes, Total	µg/kg	620.6	95UCL	5.6E+05	--	1E-03	--
24423 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0076	Max	2.3E+02	--	3E-05	--
24423 MARBELLA AVE	Benzene	µg/kg	0.36	Max	6.7E+04	2.2E+02	5E-06	2E-09
24423 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.27	Max	1.2E+03	3.5E+01	2E-04	8E-09
24423 MARBELLA AVE	Bromomethane	µg/kg	3.4	Max	8.8E+03	--	4E-04	--
24423 MARBELLA AVE	Cobalt	mg/kg	12.24	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24423 MARBELLA AVE	Naphthalene	mg/kg	0.014	Max	1.5E+02	4.0E+00	9E-05	4E-09

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Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24423 MARBELLA AVE	Pyrene	mg/kg	0.0154	95UCL	1.7E+03	--	9E-06	--
24423 MARBELLA AVE	Toluene	µg/kg	1.1	Max	4.8E+06	--	2E-07	--
24423 MARBELLA AVE	TPH as Diesel	mg/kg	110	Max	1.3E+03	--	9E-02	--
24423 MARBELLA AVE	TPH as Gasoline	mg/kg	0.16	Max	7.6E+02	--	2E-04	--
24423 MARBELLA AVE	TPH as Motor Oil	mg/kg	115.3	95UCL	3.3E+03	--	4E-02	--
24423 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	399.2	95UCL	8.3E+04	--	5E-03	--
24423 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	270	Max	8.5E+04	--	3E-03	--
24423 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.617	95UCL	4.0E+03	1.6E+01	4E-04	1E-07
24423 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.887	95UCL	2.3E+02	--	2E-02	--
24423 NEPTUNE AVE	Benzene	µg/kg	45.62	95UCL	6.7E+04	2.2E+02	7E-04	2E-07
24423 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.1	Max	1.2E+03	3.5E+01	9E-04	3E-08
24423 NEPTUNE AVE	Bromodichloromethane	µg/kg	0.12	Max	4.3E+05	4.9E+02	3E-07	3E-10
24423 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.53	Max	2.3E+02	1.3E+00	2E-03	4E-07
24423 NEPTUNE AVE	Ethylbenzene	µg/kg	1300	Max	3.3E+06	4.8E+03	4E-04	3E-07
24423 NEPTUNE AVE	Naphthalene	mg/kg	1.997	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24423 NEPTUNE AVE	Pyrene	mg/kg	0.332	95UCL	1.7E+03	--	2E-04	--
24423 NEPTUNE AVE	Toluene	µg/kg	10.71	95UCL	4.8E+06	--	2E-06	--
24423 NEPTUNE AVE	TPH as Diesel	mg/kg	4827	95UCL	1.3E+03	--	4E+00	--
24423 NEPTUNE AVE	TPH as Gasoline	mg/kg	97.23	95UCL	7.6E+02	--	1E-01	--
24423 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4920	95UCL	3.3E+03	--	2E+00	--
24423 NEPTUNE AVE	Xylenes, Total	µg/kg	450	Max	5.6E+05	--	8E-04	--
24423 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	4040	95UCL	8.3E+04	--	5E-02	--
24423 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	422.4	95UCL	8.5E+04	--	5E-03	--
24423 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.14	Max	3.6E+06	2.8E+03	4E-08	5E-11
24423 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.966	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24423 RAVENNA AVE	2-Methylnaphthalene	mg/kg	6.858	95UCL	2.3E+02	--	3E-02	--
24423 RAVENNA AVE	Benzene	µg/kg	749.5	95UCL	6.7E+04	2.2E+02	1E-02	3E-06
24423 RAVENNA AVE	Bromomethane	µg/kg	2.9	Max	8.8E+03	--	3E-04	--
24423 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.26	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24423 RAVENNA AVE	Cobalt	mg/kg	9.08	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24423 RAVENNA AVE	Ethylbenzene	µg/kg	1713	95UCL	3.3E+06	4.8E+03	5E-04	4E-07
24423 RAVENNA AVE	Naphthalene	mg/kg	3.043	95UCL	1.5E+02	4.0E+00	2E-02	8E-07
24423 RAVENNA AVE	Pyrene	mg/kg	0.18	95UCL	1.7E+03	--	1E-04	--
24423 RAVENNA AVE	Toluene	µg/kg	0.271	95UCL	4.8E+06	--	6E-08	--
24423 RAVENNA AVE	TPH as Diesel	mg/kg	1818	95UCL	1.3E+03	--	1E+00	--
24423 RAVENNA AVE	TPH as Gasoline	mg/kg	414.3	95UCL	7.6E+02	--	6E-01	--
24423 RAVENNA AVE	TPH as Motor Oil	mg/kg	1663	95UCL	3.3E+03	--	5E-01	--
24423 RAVENNA AVE	Xylenes, Total	µg/kg	604.1	95UCL	5.6E+05	--	1E-03	--
24426 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.15	Max	8.3E+04	--	2E-06	--
24426 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.484	95UCL	4.0E+03	1.6E+01	1E-04	3E-08
24426 MARBELLA AVE	2-Methylnaphthalene	mg/kg	1.077	95UCL	2.3E+02	--	5E-03	--
24426 MARBELLA AVE	Benzene	µg/kg	0.181	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24426 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.42	Max	2.3E+02	1.3E+00	2E-03	3E-07
24426 MARBELLA AVE	Ethylbenzene	µg/kg	250	Max	3.3E+06	4.8E+03	8E-05	5E-08
24426 MARBELLA AVE	Naphthalene	mg/kg	0.247	95UCL	1.5E+02	4.0E+00	2E-03	6E-08
24426 MARBELLA AVE	Pyrene	mg/kg	0.327	95UCL	1.7E+03	--	2E-04	--
24426 MARBELLA AVE	Toluene	µg/kg	0.28	Max	4.8E+06	--	6E-08	--
24426 MARBELLA AVE	TPH as Diesel	mg/kg	5515	95UCL	1.3E+03	--	4E+00	--
24426 MARBELLA AVE	TPH as Gasoline	mg/kg	68.07	95UCL	7.6E+02	--	9E-02	--
24426 MARBELLA AVE	TPH as Motor Oil	mg/kg	11405	95UCL	3.3E+03	--	4E+00	--
24426 MARBELLA AVE	Trichloroethene	µg/kg	64	Max	5.8E+03	1.2E+03	1E-02	5E-08
24426 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.312	95UCL	8.3E+04	--	4E-06	--
24426 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	0.082	Max	1.2E+02	1.6E+00	7E-04	5E-08
24426 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0043	95UCL	2.3E+02	--	2E-05	--
24426 NEPTUNE AVE	Benzene	µg/kg	0.341	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
24426 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.27	Max	1.2E+03	3.5E+01	2E-04	8E-09
24426 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.194	95UCL	2.3E+02	1.3E+00	8E-04	2E-07
24426 NEPTUNE AVE	Cobalt	mg/kg	9.777	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24426 NEPTUNE AVE	Naphthalene	mg/kg	0.00034	Max	1.5E+02	4.0E+00	2E-06	9E-11
24426 NEPTUNE AVE	Pyrene	mg/kg	0.102	95UCL	1.7E+03	--	6E-05	--
24426 NEPTUNE AVE	Toluene	µg/kg	0.431	95UCL	4.8E+06	--	9E-08	--
24426 NEPTUNE AVE	TPH as Diesel	mg/kg	382.8	95UCL	1.3E+03	--	3E-01	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24426 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.136	95UCL	7.6E+02	--	2E-04	--
24426 NEPTUNE AVE	TPH as Motor Oil	mg/kg	887.2	95UCL	3.3E+03	--	3E-01	--
24426 NEPTUNE AVE	Xylenes, Total	µg/kg	0.61	Max	5.6E+05	--	1E-06	--
24426 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.33	Max	3.6E+06	2.8E+03	9E-08	1E-10
24426 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.003	Max	4.0E+03	1.6E+01	8E-07	2E-10
24426 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0373	95UCL	2.3E+02	--	2E-04	--
24426 PANAMA AVE	Benzene	µg/kg	0.315	95UCL	6.7E+04	2.2E+02	5E-06	1E-09
24426 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.3	Max	2.3E+02	1.3E+00	1E-03	2E-07
24426 PANAMA AVE	Cobalt	mg/kg	10.71	95UCL	2.3E+01	3.1E+04	5E-01	3E-10
24426 PANAMA AVE	Naphthalene	mg/kg	0.0143	95UCL	1.5E+02	4.0E+00	1E-04	4E-09
24426 PANAMA AVE	Pyrene	mg/kg	0.109	95UCL	1.7E+03	--	6E-05	--
24426 PANAMA AVE	Toluene	µg/kg	0.3	95UCL	4.8E+06	--	6E-08	--
24426 PANAMA AVE	TPH as Diesel	mg/kg	1232	95UCL	1.3E+03	--	1E+00	--
24426 PANAMA AVE	TPH as Gasoline	mg/kg	0.114	95UCL	7.6E+02	--	2E-04	--
24426 PANAMA AVE	TPH as Motor Oil	mg/kg	2606	95UCL	3.3E+03	--	8E-01	--
24426 PANAMA AVE	Xylenes, Total	µg/kg	0.59	Max	5.6E+05	--	1E-06	--
24426 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	4169	95UCL	8.3E+04	--	5E-02	--
24426 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	608.7	95UCL	8.5E+04	--	7E-03	--
24426 RAVENNA AVE	1-Methylnaphthalene	mg/kg	6.914	95UCL	4.0E+03	1.6E+01	2E-03	4E-07
24426 RAVENNA AVE	2-Methylnaphthalene	mg/kg	11.44	95UCL	2.3E+02	--	5E-02	--
24426 RAVENNA AVE	Benzene	µg/kg	157.1	95UCL	6.7E+04	2.2E+02	2E-03	7E-07
24426 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.21	Max	1.2E+03	3.5E+01	2E-04	6E-09
24426 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.338	95UCL	2.3E+02	1.3E+00	1E-03	3E-07
24426 RAVENNA AVE	Cobalt	mg/kg	9.556	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24426 RAVENNA AVE	Ethylbenzene	µg/kg	1277	95UCL	3.3E+06	4.8E+03	4E-04	3E-07
24426 RAVENNA AVE	Naphthalene	mg/kg	3.688	95UCL	1.5E+02	4.0E+00	2E-02	9E-07
24426 RAVENNA AVE	Pyrene	mg/kg	2.585	95UCL	1.7E+03	--	2E-03	--
24426 RAVENNA AVE	Toluene	µg/kg	4.624	95UCL	4.8E+06	--	1E-06	--
24426 RAVENNA AVE	TPH as Diesel	mg/kg	3832	95UCL	1.3E+03	--	3E+00	--
24426 RAVENNA AVE	TPH as Gasoline	mg/kg	278.6	95UCL	7.6E+02	--	4E-01	--
24426 RAVENNA AVE	TPH as Motor Oil	mg/kg	3298	95UCL	3.3E+03	--	1E+00	--
24426 RAVENNA AVE	Xylenes, Total	µg/kg	1340	95UCL	5.6E+05	--	2E-03	--
24427 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.023	Max	2.3E+02	--	1E-04	--
24427 MARBELLA AVE	Benzene	µg/kg	0.195	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24427 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.2	Max	1.2E+03	3.5E+01	2E-04	6E-09
24427 MARBELLA AVE	Cobalt	mg/kg	13.83	95UCL	2.3E+01	3.1E+04	6E-01	4E-10
24427 MARBELLA AVE	Naphthalene	mg/kg	0.0094	Max	1.5E+02	4.0E+00	6E-05	2E-09
24427 MARBELLA AVE	Pyrene	mg/kg	0.026	95UCL	1.7E+03	--	2E-05	--
24427 MARBELLA AVE	Tetrachloroethene	µg/kg	4.95	95UCL	8.6E+04	5.5E+02	6E-05	9E-09
24427 MARBELLA AVE	Toluene	µg/kg	0.211	95UCL	4.8E+06	--	4E-08	--
24427 MARBELLA AVE	TPH as Diesel	mg/kg	70.97	95UCL	1.3E+03	--	6E-02	--
24427 MARBELLA AVE	TPH as Gasoline	mg/kg	0.16	Max	7.6E+02	--	2E-04	--
24427 MARBELLA AVE	TPH as Motor Oil	mg/kg	173.8	95UCL	3.3E+03	--	5E-02	--
24427 MARBELLA AVE	Trichloroethene	µg/kg	0.25	Max	5.8E+03	1.2E+03	4E-05	2E-10
24427 MARBELLA AVE	Vanadium	mg/kg	45.26	95UCL	3.9E+02	--	1E-01	--
24427 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.18	95UCL	8.3E+04	--	2E-06	--
24427 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.01	Max	4.0E+03	1.6E+01	3E-06	6E-10
24427 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0111	95UCL	2.3E+02	--	5E-05	--
24427 PANAMA AVE	Benzene	µg/kg	0.148	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24427 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.38	Max	1.2E+03	3.5E+01	3E-04	1E-08
24427 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.56	Max	2.3E+02	1.3E+00	2E-03	4E-07
24427 PANAMA AVE	Cobalt	mg/kg	9.91	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24427 PANAMA AVE	Naphthalene	mg/kg	0.013	95UCL	1.5E+02	4.0E+00	9E-05	3E-09
24427 PANAMA AVE	Pyrene	mg/kg	0.215	95UCL	1.7E+03	--	1E-04	--
24427 PANAMA AVE	Toluene	µg/kg	0.206	95UCL	4.8E+06	--	4E-08	--
24427 PANAMA AVE	TPH as Diesel	mg/kg	425.4	95UCL	1.3E+03	--	3E-01	--
24427 PANAMA AVE	TPH as Gasoline	mg/kg	0.11	95UCL	7.6E+02	--	1E-04	--
24427 PANAMA AVE	TPH as Motor Oil	mg/kg	653.7	95UCL	3.3E+03	--	2E-01	--
24427 PANAMA AVE	Xylenes, Total	µg/kg	0.34	Max	5.6E+05	--	6E-07	--
24429 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.509	95UCL	8.3E+04	--	6E-06	--
24429 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1	Max	4.0E+03	1.6E+01	3E-04	6E-08
24429 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.92	Max	2.3E+02	--	4E-03	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil <=5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24429 NEPTUNE AVE	Benzene	µg/kg	0.258	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24429 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.31	Max	2.3E+02	1.3E+00	1E-03	2E-07
24429 NEPTUNE AVE	Ethylbenzene	µg/kg	0.63	Max	3.3E+06	4.8E+03	2E-07	1E-10
24429 NEPTUNE AVE	Naphthalene	mg/kg	0.22	Max	1.5E+02	4.0E+00	2E-03	6E-08
24429 NEPTUNE AVE	Pyrene	mg/kg	0.263	95UCL	1.7E+03	--	2E-04	--
24429 NEPTUNE AVE	Tetrachloroethene	µg/kg	0.17	Max	8.6E+04	5.5E+02	2E-06	3E-10
24429 NEPTUNE AVE	Toluene	µg/kg	0.265	95UCL	4.8E+06	--	6E-08	--
24429 NEPTUNE AVE	TPH as Diesel	mg/kg	2720	95UCL	1.3E+03	--	2E+00	--
24429 NEPTUNE AVE	TPH as Gasoline	mg/kg	6.4	Max	7.6E+02	--	8E-03	--
24429 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3088	95UCL	3.3E+03	--	9E-01	--
24429 NEPTUNE AVE	Xylenes, Total	µg/kg	0.373	95UCL	5.6E+05	--	7E-07	--
24429 RAVENNA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.218	95UCL	6.2E+05	4.7E+02	4E-07	5E-10
24429 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1.7	Max	8.3E+04	--	2E-05	--
24429 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1.3	Max	8.5E+04	--	2E-05	--
24429 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.219	95UCL	4.0E+03	1.6E+01	6E-05	1E-08
24429 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.139	95UCL	2.3E+02	--	6E-04	--
24429 RAVENNA AVE	Benzene	µg/kg	0.281	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24429 RAVENNA AVE	Bromomethane	µg/kg	170	Max	8.8E+03	--	2E-02	--
24429 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.37	Max	2.3E+02	1.3E+00	2E-03	3E-07
24429 RAVENNA AVE	Ethylbenzene	µg/kg	0.37	Max	3.3E+06	4.8E+03	1E-07	8E-11
24429 RAVENNA AVE	Naphthalene	mg/kg	0.042	95UCL	1.5E+02	4.0E+00	3E-04	1E-08
24429 RAVENNA AVE	Pyrene	mg/kg	0.229	95UCL	1.7E+03	--	1E-04	--
24429 RAVENNA AVE	Toluene	µg/kg	0.254	95UCL	4.8E+06	--	5E-08	--
24429 RAVENNA AVE	TPH as Diesel	mg/kg	912.3	95UCL	1.3E+03	--	7E-01	--
24429 RAVENNA AVE	TPH as Gasoline	mg/kg	0.498	95UCL	7.6E+02	--	7E-04	--
24429 RAVENNA AVE	TPH as Motor Oil	mg/kg	1270	95UCL	3.3E+03	--	4E-01	--
24429 RAVENNA AVE	Xylenes, Total	µg/kg	0.43	Max	5.6E+05	--	8E-07	--
24430 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.14	Max	8.3E+04	--	2E-06	--
24430 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0024	Max	4.0E+03	1.6E+01	6E-07	2E-10
24430 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0106	95UCL	2.3E+02	--	5E-05	--
24430 PANAMA AVE	Benzene	µg/kg	0.18	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24430 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.22	Max	1.2E+03	3.5E+01	2E-04	6E-09
24430 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.38	95UCL	2.3E+02	1.3E+00	2E-03	3E-07
24430 PANAMA AVE	Naphthalene	mg/kg	0.00579	95UCL	1.5E+02	4.0E+00	4E-05	2E-09
24430 PANAMA AVE	Pyrene	mg/kg	0.0536	95UCL	1.7E+03	--	3E-05	--
24430 PANAMA AVE	Toluene	µg/kg	0.391	95UCL	4.8E+06	--	8E-08	--
24430 PANAMA AVE	TPH as Diesel	mg/kg	42.89	95UCL	1.3E+03	--	3E-02	--
24430 PANAMA AVE	TPH as Gasoline	mg/kg	0.0761	95UCL	7.6E+02	--	1E-04	--
24430 PANAMA AVE	TPH as Motor Oil	mg/kg	115.8	95UCL	3.3E+03	--	4E-02	--
24430 PANAMA AVE	Xylenes, Total	µg/kg	0.29	Max	5.6E+05	--	5E-07	--
24431 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.23	Max	6.2E+05	4.7E+02	4E-07	5E-10
24431 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.407	95UCL	8.3E+04	--	5E-06	--
24431 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.015	Max	4.0E+03	1.6E+01	4E-06	1E-09
24431 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0332	95UCL	2.3E+02	--	1E-04	--
24431 PANAMA AVE	Benzene	µg/kg	0.434	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
24431 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.6	Max	2.3E+02	1.3E+00	3E-03	5E-07
24431 PANAMA AVE	Cobalt	mg/kg	10.05	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24431 PANAMA AVE	Ethylbenzene	µg/kg	0.2	Max	3.3E+06	4.8E+03	6E-08	4E-11
24431 PANAMA AVE	Naphthalene	mg/kg	0.011	95UCL	1.5E+02	4.0E+00	7E-05	3E-09
24431 PANAMA AVE	Pyrene	mg/kg	0.1	95UCL	1.7E+03	--	6E-05	--
24431 PANAMA AVE	Tetrachloroethene	µg/kg	8.3	Max	8.6E+04	5.5E+02	1E-04	2E-08
24431 PANAMA AVE	Toluene	µg/kg	0.301	95UCL	4.8E+06	--	6E-08	--
24431 PANAMA AVE	TPH as Diesel	mg/kg	848	95UCL	1.3E+03	--	7E-01	--
24431 PANAMA AVE	TPH as Gasoline	mg/kg	0.1	95UCL	7.6E+02	--	1E-04	--
24431 PANAMA AVE	TPH as Motor Oil	mg/kg	2449	95UCL	3.3E+03	--	7E-01	--
24431 PANAMA AVE	Trichloroethene	µg/kg	0.4	Max	5.8E+03	1.2E+03	7E-05	3E-10
24431 PANAMA AVE	Xylenes, Total	µg/kg	0.497	95UCL	5.6E+05	--	9E-07	--
24432 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2.225	95UCL	8.3E+04	--	3E-05	--
24432 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1.421	95UCL	8.5E+04	--	2E-05	--
24432 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.741	95UCL	4.0E+03	1.6E+01	2E-04	5E-08
24432 MARBELLA AVE	2-Methylnaphthalene	mg/kg	1.049	95UCL	2.3E+02	--	5E-03	--
24432 MARBELLA AVE	Benzene	µg/kg	2.679	95UCL	6.7E+04	2.2E+02	4E-05	1E-08

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24432 MARBELLA AVE	Ethylbenzene	µg/kg	4.727	95UCL	3.3E+06	4.8E+03	2E-06	1E-09
24432 MARBELLA AVE	Naphthalene	mg/kg	0.267	95UCL	1.5E+02	4.0E+00	2E-03	7E-08
24432 MARBELLA AVE	Pyrene	mg/kg	0.269	95UCL	1.7E+03	--	2E-04	--
24432 MARBELLA AVE	Toluene	µg/kg	0.382	95UCL	4.8E+06	--	8E-08	--
24432 MARBELLA AVE	TPH as Diesel	mg/kg	1136	95UCL	1.3E+03	--	9E-01	--
24432 MARBELLA AVE	TPH as Gasoline	mg/kg	30.16	95UCL	7.6E+02	--	4E-02	--
24432 MARBELLA AVE	TPH as Motor Oil	mg/kg	1807	95UCL	3.3E+03	--	6E-01	--
24432 MARBELLA AVE	Trichloroethene	µg/kg	0.19	Max	5.8E+03	1.2E+03	3E-05	2E-10
24432 MARBELLA AVE	Xylenes, Total	µg/kg	6.126	95UCL	5.6E+05	--	1E-05	--
24433 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	8.172	95UCL	8.3E+04	--	1E-04	--
24433 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.24	Max	8.5E+04	--	3E-06	--
24433 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0179	95UCL	4.0E+03	1.6E+01	5E-06	1E-09
24433 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00865	95UCL	2.3E+02	--	4E-05	--
24433 MARBELLA AVE	Benzene	µg/kg	0.16	Max	6.7E+04	2.2E+02	2E-06	7E-10
24433 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.191	95UCL	2.3E+02	1.3E+00	8E-04	2E-07
24433 MARBELLA AVE	Cobalt	mg/kg	13.2	95UCL	2.3E+01	3.1E+04	6E-01	4E-10
24433 MARBELLA AVE	Ethylbenzene	µg/kg	0.64	Max	3.3E+06	4.8E+03	2E-07	1E-10
24433 MARBELLA AVE	Naphthalene	mg/kg	0.0641	95UCL	1.5E+02	4.0E+00	4E-04	2E-08
24433 MARBELLA AVE	Pyrene	mg/kg	0.0553	95UCL	1.7E+03	--	3E-05	--
24433 MARBELLA AVE	Tetrachloroethene	µg/kg	5231	95UCL	8.6E+04	5.5E+02	6E-02	9E-06
24433 MARBELLA AVE	Toluene	µg/kg	24.76	95UCL	4.8E+06	--	5E-06	--
24433 MARBELLA AVE	TPH as Diesel	mg/kg	4670	95UCL	1.3E+03	--	4E+00	--
24433 MARBELLA AVE	TPH as Gasoline	mg/kg	0.19	Max	7.6E+02	--	3E-04	--
24433 MARBELLA AVE	TPH as Motor Oil	mg/kg	10174	95UCL	3.3E+03	--	3E+00	--
24433 MARBELLA AVE	Trichloroethene	µg/kg	140	Max	5.8E+03	1.2E+03	2E-02	1E-07
24433 MARBELLA AVE	Vanadium	mg/kg	40.5	95UCL	3.9E+02	--	1E-01	--
24433 MARBELLA AVE	Xylenes, Total	µg/kg	100	Max	5.6E+05	--	2E-04	--
24436 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	0.91	Max	2.4E+03	2.1E+01	4E-04	4E-08
24436 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.234	95UCL	8.3E+04	--	3E-06	--
24436 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0061	Max	4.0E+03	1.6E+01	2E-06	4E-10
24436 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00724	95UCL	2.3E+02	--	3E-05	--
24436 PANAMA AVE	Benzene	µg/kg	0.153	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24436 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.45	Max	1.2E+03	3.5E+01	4E-04	1E-08
24436 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.33	95UCL	2.3E+02	1.3E+00	1E-03	3E-07
24436 PANAMA AVE	Naphthalene	mg/kg	0.00402	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
24436 PANAMA AVE	Pyrene	mg/kg	0.0275	95UCL	1.7E+03	--	2E-05	--
24436 PANAMA AVE	Toluene	µg/kg	0.225	95UCL	4.8E+06	--	5E-08	--
24436 PANAMA AVE	TPH as Diesel	mg/kg	28.22	95UCL	1.3E+03	--	2E-02	--
24436 PANAMA AVE	TPH as Gasoline	mg/kg	0.087	Max	7.6E+02	--	1E-04	--
24436 PANAMA AVE	TPH as Motor Oil	mg/kg	85.56	95UCL	3.3E+03	--	3E-02	--
24436 PANAMA AVE	Xylenes, Total	µg/kg	0.2	Max	5.6E+05	--	4E-07	--
24502 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	4.681	95UCL	8.3E+04	--	6E-05	--
24502 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1.5	Max	8.5E+04	--	2E-05	--
24502 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.17	Max	3.6E+06	2.8E+03	5E-08	6E-11
24502 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.166	95UCL	4.0E+03	1.6E+01	4E-05	1E-08
24502 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.418	95UCL	2.3E+02	--	2E-03	--
24502 MARBELLA AVE	Benzene	µg/kg	0.37	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24502 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	1.2E+03	3.5E+01	1E-04	5E-09
24502 MARBELLA AVE	Bromodichloromethane	µg/kg	0.19	Max	4.3E+05	4.9E+02	4E-07	4E-10
24502 MARBELLA AVE	Bromomethane	µg/kg	180	Max	8.8E+03	--	2E-02	--
24502 MARBELLA AVE	Cobalt	mg/kg	9.758	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24502 MARBELLA AVE	Ethylbenzene	µg/kg	7.141	95UCL	3.3E+06	4.8E+03	2E-06	2E-09
24502 MARBELLA AVE	Naphthalene	mg/kg	0.148	95UCL	1.5E+02	4.0E+00	1E-03	4E-08
24502 MARBELLA AVE	Pyrene	mg/kg	0.259	95UCL	1.7E+03	--	2E-04	--
24502 MARBELLA AVE	Toluene	µg/kg	0.273	95UCL	4.8E+06	--	6E-08	--
24502 MARBELLA AVE	TPH as Diesel	mg/kg	1346	95UCL	1.3E+03	--	1E+00	--
24502 MARBELLA AVE	TPH as Gasoline	mg/kg	45.98	95UCL	7.6E+02	--	6E-02	--
24502 MARBELLA AVE	TPH as Motor Oil	mg/kg	2133	95UCL	3.3E+03	--	7E-01	--
24502 MARBELLA AVE	Xylenes, Total	µg/kg	6.71	95UCL	5.6E+05	--	1E-05	--
24502 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1.45	95UCL	8.3E+04	--	2E-05	--
24502 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	4.8	Max	8.5E+04	--	6E-05	--
24502 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.288	95UCL	4.0E+03	1.6E+01	7E-05	2E-08

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24502 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.13	95UCL	2.3E+02	--	6E-04	--
24502 NEPTUNE AVE	Benzene	µg/kg	0.137	95UCL	6.7E+04	2.2E+02	2E-06	6E-10
24502 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.457	95UCL	2.3E+02	1.3E+00	2E-03	4E-07
24502 NEPTUNE AVE	Ethylbenzene	µg/kg	2.2	Max	3.3E+06	4.8E+03	7E-07	5E-10
24502 NEPTUNE AVE	Naphthalene	mg/kg	0.0121	95UCL	1.5E+02	4.0E+00	8E-05	3E-09
24502 NEPTUNE AVE	Pyrene	mg/kg	0.0583	95UCL	1.7E+03	--	3E-05	--
24502 NEPTUNE AVE	Toluene	µg/kg	0.155	95UCL	4.8E+06	--	3E-08	--
24502 NEPTUNE AVE	TPH as Diesel	mg/kg	436.3	95UCL	1.3E+03	--	3E-01	--
24502 NEPTUNE AVE	TPH as Gasoline	mg/kg	5.422	95UCL	7.6E+02	--	7E-03	--
24502 NEPTUNE AVE	TPH as Motor Oil	mg/kg	765.5	95UCL	3.3E+03	--	2E-01	--
24502 NEPTUNE AVE	Xylenes, Total	µg/kg	3.4	Max	5.6E+05	--	6E-06	--
24502 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00264	95UCL	4.0E+03	1.6E+01	7E-07	2E-10
24502 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00247	95UCL	2.3E+02	--	1E-05	--
24502 PANAMA AVE	Benzene	µg/kg	0.184	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24502 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	1.2E+03	3.5E+01	1E-04	5E-09
24502 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.284	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24502 PANAMA AVE	Naphthalene	mg/kg	0.00127	95UCL	1.5E+02	4.0E+00	8E-06	3E-10
24502 PANAMA AVE	Pyrene	mg/kg	0.00442	95UCL	1.7E+03	--	3E-06	--
24502 PANAMA AVE	Toluene	µg/kg	0.2	95UCL	4.8E+06	--	4E-08	--
24502 PANAMA AVE	TPH as Diesel	mg/kg	43	Max	1.3E+03	--	3E-02	--
24502 PANAMA AVE	TPH as Gasoline	mg/kg	0.0927	95UCL	7.6E+02	--	1E-04	--
24502 PANAMA AVE	TPH as Motor Oil	mg/kg	23.94	95UCL	3.3E+03	--	7E-03	--
24502 PANAMA AVE	Xylenes, Total	µg/kg	0.23	Max	5.6E+05	--	4E-07	--
24502 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	20000	Max	8.3E+04	--	2E-01	--
24502 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1200	Max	8.5E+04	--	1E-02	--
24502 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.07	95UCL	4.0E+03	1.6E+01	8E-04	2E-07
24502 RAVENNA AVE	2-Methylnaphthalene	mg/kg	8.491	95UCL	2.3E+02	--	4E-02	--
24502 RAVENNA AVE	Benzene	µg/kg	138.5	95UCL	6.7E+04	2.2E+02	2E-03	6E-07
24502 RAVENNA AVE	Bromomethane	µg/kg	900	Max	8.8E+03	--	1E-01	--
24502 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.369	95UCL	2.3E+02	1.3E+00	2E-03	3E-07
24502 RAVENNA AVE	Ethylbenzene	µg/kg	5800	Max	3.3E+06	4.8E+03	2E-03	1E-06
24502 RAVENNA AVE	Naphthalene	mg/kg	3.068	95UCL	1.5E+02	4.0E+00	2E-02	8E-07
24502 RAVENNA AVE	Pyrene	mg/kg	1.264	95UCL	1.7E+03	--	7E-04	--
24502 RAVENNA AVE	Toluene	µg/kg	0.17	Max	4.8E+06	--	4E-08	--
24502 RAVENNA AVE	TPH as Diesel	mg/kg	4405	95UCL	1.3E+03	--	3E+00	--
24502 RAVENNA AVE	TPH as Gasoline	mg/kg	382.4	95UCL	7.6E+02	--	5E-01	--
24502 RAVENNA AVE	TPH as Motor Oil	mg/kg	4618	95UCL	3.3E+03	--	1E+00	--
24502 RAVENNA AVE	Xylenes, Total	µg/kg	7800	Max	5.6E+05	--	1E-02	--
24503 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.27	Max	8.3E+04	--	3E-06	--
24503 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0075	Max	4.0E+03	1.6E+01	2E-06	5E-10
24503 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00163	95UCL	2.3E+02	--	7E-06	--
24503 MARBELLA AVE	Benzene	µg/kg	0.237	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24503 MARBELLA AVE	Cobalt	mg/kg	12.29	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24503 MARBELLA AVE	Naphthalene	mg/kg	0.0112	95UCL	1.5E+02	4.0E+00	7E-05	3E-09
24503 MARBELLA AVE	Pyrene	mg/kg	0.0303	95UCL	1.7E+03	--	2E-05	--
24503 MARBELLA AVE	Tetrachloroethene	µg/kg	2.805	95UCL	8.6E+04	5.5E+02	3E-05	5E-09
24503 MARBELLA AVE	Toluene	µg/kg	0.273	95UCL	4.8E+06	--	6E-08	--
24503 MARBELLA AVE	TPH as Diesel	mg/kg	51.84	95UCL	1.3E+03	--	4E-02	--
24503 MARBELLA AVE	TPH as Gasoline	mg/kg	0.17	Max	7.6E+02	--	2E-04	--
24503 MARBELLA AVE	TPH as Motor Oil	mg/kg	137.7	95UCL	3.3E+03	--	4E-02	--
24503 MARBELLA AVE	Trichloroethene	µg/kg	0.26	Max	5.8E+03	1.2E+03	5E-05	2E-10
24503 MARBELLA AVE	Vanadium	mg/kg	41.05	95UCL	3.9E+02	--	1E-01	--
24503 MARBELLA AVE	Xylenes, Total	µg/kg	0.21	Max	5.6E+05	--	4E-07	--
24503 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1.2	Max	8.3E+04	--	2E-05	--
24503 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.21	Max	8.5E+04	--	3E-06	--
24503 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.338	95UCL	4.0E+03	1.6E+01	8E-05	2E-08
24503 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.463	95UCL	2.3E+02	--	2E-03	--
24503 NEPTUNE AVE	Benzene	µg/kg	0.213	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24503 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.2	Max	1.2E+03	3.5E+01	1E-03	4E-08
24503 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.26	Max	2.3E+02	1.3E+00	1E-03	2E-07
24503 NEPTUNE AVE	Ethylbenzene	µg/kg	1.327	95UCL	3.3E+06	4.8E+03	4E-07	3E-10
24503 NEPTUNE AVE	Naphthalene	mg/kg	0.135	95UCL	1.5E+02	4.0E+00	9E-04	3E-08

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24503 NEPTUNE AVE	Pyrene	mg/kg	0.211	95UCL	1.7E+03	--	1E-04	--
24503 NEPTUNE AVE	Toluene	µg/kg	0.184	95UCL	4.8E+06	--	4E-08	--
24503 NEPTUNE AVE	TPH as Diesel	mg/kg	2019	95UCL	1.3E+03	--	2E+00	--
24503 NEPTUNE AVE	TPH as Gasoline	mg/kg	13.01	95UCL	7.6E+02	--	2E-02	--
24503 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1565	95UCL	3.3E+03	--	5E-01	--
24503 NEPTUNE AVE	Xylenes, Total	µg/kg	1.7	Max	5.6E+05	--	3E-06	--
24503 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	173.6	95UCL	8.3E+04	--	2E-03	--
24503 PANAMA AVE	1,2-Dichloropropane	µg/kg	100	Max	1.5E+04	8.3E+02	7E-03	1E-07
24503 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	100	Max	8.5E+04	--	1E-03	--
24503 PANAMA AVE	1-Methylnaphthalene	mg/kg	11	Max	4.0E+03	1.6E+01	3E-03	7E-07
24503 PANAMA AVE	2-Methylnaphthalene	mg/kg	5.479	95UCL	2.3E+02	--	2E-02	--
24503 PANAMA AVE	Benzene	µg/kg	63.05	95UCL	6.7E+04	2.2E+02	9E-04	3E-07
24503 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.26	Max	1.2E+03	3.5E+01	2E-04	8E-09
24503 PANAMA AVE	Ethylbenzene	µg/kg	880	95UCL	3.3E+06	4.8E+03	3E-04	2E-07
24503 PANAMA AVE	Naphthalene	mg/kg	2.32	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24503 PANAMA AVE	Pyrene	mg/kg	0.364	95UCL	1.7E+03	--	2E-04	--
24503 PANAMA AVE	Toluene	µg/kg	9.637	95UCL	4.8E+06	--	2E-06	--
24503 PANAMA AVE	TPH as Diesel	mg/kg	4125	95UCL	1.3E+03	--	3E+00	--
24503 PANAMA AVE	TPH as Gasoline	mg/kg	216.9	95UCL	7.6E+02	--	3E-01	--
24503 PANAMA AVE	TPH as Motor Oil	mg/kg	3751	95UCL	3.3E+03	--	1E+00	--
24503 PANAMA AVE	Xylenes, Total	µg/kg	103.7	95UCL	5.6E+05	--	2E-04	--
24503 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1.1	Max	8.3E+04	--	1E-05	--
24503 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.027	95UCL	4.0E+03	1.6E+01	7E-06	2E-09
24503 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0199	95UCL	2.3E+02	--	9E-05	--
24503 RAVENNA AVE	Benzene	µg/kg	0.244	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24503 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.4	Max	1.2E+03	3.5E+01	3E-04	1E-08
24503 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	2.3E+02	1.3E+00	2E-03	3E-07
24503 RAVENNA AVE	Ethylbenzene	µg/kg	0.46	Max	3.3E+06	4.8E+03	1E-07	1E-10
24503 RAVENNA AVE	Methylene Chloride	µg/kg	3	Max	3.6E+05	5.3E+03	8E-06	6E-10
24503 RAVENNA AVE	Naphthalene	mg/kg	0.0307	95UCL	1.5E+02	4.0E+00	2E-04	8E-09
24503 RAVENNA AVE	Pyrene	mg/kg	0.145	95UCL	1.7E+03	--	9E-05	--
24503 RAVENNA AVE	Toluene	µg/kg	0.895	95UCL	4.8E+06	--	2E-07	--
24503 RAVENNA AVE	TPH as Diesel	mg/kg	202	95UCL	1.3E+03	--	2E-01	--
24503 RAVENNA AVE	TPH as Gasoline	mg/kg	0.397	95UCL	7.6E+02	--	5E-04	--
24503 RAVENNA AVE	TPH as Motor Oil	mg/kg	322.7	95UCL	3.3E+03	--	1E-01	--
24503 RAVENNA AVE	Xylenes, Total	µg/kg	0.452	95UCL	5.6E+05	--	8E-07	--
24506 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1670	95UCL	8.3E+04	--	2E-02	--
24506 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	2200	Max	8.5E+04	--	3E-02	--
24506 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.19	Max	3.6E+06	2.8E+03	5E-08	7E-11
24506 MARBELLA AVE	1-Methylnaphthalene	mg/kg	5.416	95UCL	4.0E+03	1.6E+01	1E-03	4E-07
24506 MARBELLA AVE	2-Methylnaphthalene	mg/kg	7.695	95UCL	2.3E+02	--	3E-02	--
24506 MARBELLA AVE	Benzene	µg/kg	641	95UCL	6.7E+04	2.2E+02	1E-02	3E-06
24506 MARBELLA AVE	Bromomethane	µg/kg	220	Max	8.8E+03	--	3E-02	--
24506 MARBELLA AVE	Cobalt	mg/kg	10.47	95UCL	2.3E+01	3.1E+04	5E-01	3E-10
24506 MARBELLA AVE	Ethylbenzene	µg/kg	5000	Max	3.3E+06	4.8E+03	2E-03	1E-06
24506 MARBELLA AVE	Methylene Chloride	µg/kg	4.4	Max	3.6E+05	5.3E+03	1E-05	8E-10
24506 MARBELLA AVE	Naphthalene	mg/kg	2.783	95UCL	1.5E+02	4.0E+00	2E-02	7E-07
24506 MARBELLA AVE	Pyrene	mg/kg	0.81	95UCL	1.7E+03	--	5E-04	--
24506 MARBELLA AVE	Toluene	µg/kg	219.3	95UCL	4.8E+06	--	5E-05	--
24506 MARBELLA AVE	TPH as Diesel	mg/kg	5241	95UCL	1.3E+03	--	4E+00	--
24506 MARBELLA AVE	TPH as Gasoline	mg/kg	167.9	95UCL	7.6E+02	--	2E-01	--
24506 MARBELLA AVE	TPH as Motor Oil	mg/kg	10686	95UCL	3.3E+03	--	3E+00	--
24506 MARBELLA AVE	Xylenes, Total	µg/kg	1919	95UCL	5.6E+05	--	3E-03	--
24507 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.008	Max	4.0E+03	1.6E+01	2E-06	5E-10
24507 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0114	95UCL	2.3E+02	--	5E-05	--
24507 MARBELLA AVE	Benzene	µg/kg	0.237	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24507 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.28	Max	2.3E+02	1.3E+00	1E-03	2E-07
24507 MARBELLA AVE	Cobalt	mg/kg	13.64	95UCL	2.3E+01	3.1E+04	6E-01	4E-10
24507 MARBELLA AVE	Naphthalene	mg/kg	0.0117	95UCL	1.5E+02	4.0E+00	8E-05	3E-09
24507 MARBELLA AVE	Pyrene	mg/kg	0.101	95UCL	1.7E+03	--	6E-05	--
24507 MARBELLA AVE	Tetrachloroethene	µg/kg	2.919	95UCL	8.6E+04	5.5E+02	3E-05	5E-09
24507 MARBELLA AVE	Toluene	µg/kg	0.208	95UCL	4.8E+06	--	4E-08	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24507 MARBELLA AVE	TPH as Diesel	mg/kg	91.51	95UCL	1.3E+03	--	7E-02	--
24507 MARBELLA AVE	TPH as Gasoline	mg/kg	0.0776	95UCL	7.6E+02	--	1E-04	--
24507 MARBELLA AVE	TPH as Motor Oil	mg/kg	323.5	95UCL	3.3E+03	--	1E-01	--
24507 MARBELLA AVE	Trichloroethene	µg/kg	0.22	Max	5.8E+03	1.2E+03	4E-05	2E-10
24507 MARBELLA AVE	Vanadium	mg/kg	45.42	95UCL	3.9E+02	--	1E-01	--
24508 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.1	Max	8.3E+04	--	1E-06	--
24508 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	200	Max	3.6E+06	2.8E+03	6E-05	7E-08
24508 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.015	95UCL	4.0E+03	1.6E+01	4E-06	1E-09
24508 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.051	95UCL	2.3E+02	--	2E-04	--
24508 NEPTUNE AVE	Benzene	µg/kg	0.437	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
24508 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.32	Max	1.2E+03	3.5E+01	3E-04	9E-09
24508 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.35	Max	2.3E+02	1.3E+00	2E-03	3E-07
24508 NEPTUNE AVE	Ethylbenzene	µg/kg	1	Max	3.3E+06	4.8E+03	3E-07	2E-10
24508 NEPTUNE AVE	Naphthalene	mg/kg	0.00944	95UCL	1.5E+02	4.0E+00	6E-05	2E-09
24508 NEPTUNE AVE	Pyrene	mg/kg	0.363	95UCL	1.7E+03	--	2E-04	--
24508 NEPTUNE AVE	Toluene	µg/kg	0.214	95UCL	4.8E+06	--	5E-08	--
24508 NEPTUNE AVE	TPH as Diesel	mg/kg	1009	95UCL	1.3E+03	--	8E-01	--
24508 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.503	95UCL	7.6E+02	--	7E-04	--
24508 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2536	95UCL	3.3E+03	--	8E-01	--
24508 NEPTUNE AVE	Xylenes, Total	µg/kg	1.4	Max	5.6E+05	--	3E-06	--
24508 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00309	95UCL	4.0E+03	1.6E+01	8E-07	2E-10
24508 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00365	95UCL	2.3E+02	--	2E-05	--
24508 PANAMA AVE	Benzene	µg/kg	0.24	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24508 PANAMA AVE	Bromomethane	µg/kg	1.7	Max	8.8E+03	--	2E-04	--
24508 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.32	95UCL	2.3E+02	1.3E+00	1E-03	3E-07
24508 PANAMA AVE	Naphthalene	mg/kg	0.00228	95UCL	1.5E+02	4.0E+00	2E-05	6E-10
24508 PANAMA AVE	Pyrene	mg/kg	0.00434	95UCL	1.7E+03	--	3E-06	--
24508 PANAMA AVE	Toluene	µg/kg	0.18	95UCL	4.8E+06	--	4E-08	--
24508 PANAMA AVE	TPH as Diesel	mg/kg	88	Max	1.3E+03	--	7E-02	--
24508 PANAMA AVE	TPH as Gasoline	mg/kg	0.075	Max	7.6E+02	--	1E-04	--
24508 PANAMA AVE	TPH as Motor Oil	mg/kg	280	Max	3.3E+03	--	9E-02	--
24508 PANAMA AVE	Trichloroethene	µg/kg	1.4	Max	5.8E+03	1.2E+03	2E-04	1E-09
24508 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	12.42	95UCL	8.3E+04	--	2E-04	--
24508 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1.4	Max	8.5E+04	--	2E-05	--
24508 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.411	95UCL	4.0E+03	1.6E+01	6E-04	2E-07
24508 RAVENNA AVE	2-Methylnaphthalene	mg/kg	3.574	95UCL	2.3E+02	--	2E-02	--
24508 RAVENNA AVE	Benzene	µg/kg	3.331	95UCL	6.7E+04	2.2E+02	5E-05	2E-08
24508 RAVENNA AVE	Cobalt	mg/kg	9.18	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24508 RAVENNA AVE	Ethylbenzene	µg/kg	12.05	95UCL	3.3E+06	4.8E+03	4E-06	3E-09
24508 RAVENNA AVE	Naphthalene	mg/kg	1.105	95UCL	1.5E+02	4.0E+00	7E-03	3E-07
24508 RAVENNA AVE	Pyrene	mg/kg	0.482	95UCL	1.7E+03	--	3E-04	--
24508 RAVENNA AVE	Toluene	µg/kg	0.216	95UCL	4.8E+06	--	5E-08	--
24508 RAVENNA AVE	TPH as Diesel	mg/kg	2355	95UCL	1.3E+03	--	2E+00	--
24508 RAVENNA AVE	TPH as Gasoline	mg/kg	103.4	95UCL	7.6E+02	--	1E-01	--
24508 RAVENNA AVE	TPH as Motor Oil	mg/kg	2664	95UCL	3.3E+03	--	8E-01	--
24508 RAVENNA AVE	Xylenes, Total	µg/kg	6.573	95UCL	5.6E+05	--	1E-05	--
24509 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.203	95UCL	8.3E+04	--	3E-06	--
24509 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0113	95UCL	4.0E+03	1.6E+01	3E-06	7E-10
24509 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.035	95UCL	2.3E+02	--	2E-04	--
24509 NEPTUNE AVE	Benzene	µg/kg	0.208	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24509 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.19	Max	1.2E+03	3.5E+01	2E-04	6E-09
24509 NEPTUNE AVE	Bromodichloromethane	µg/kg	0.24	Max	4.3E+05	4.9E+02	6E-07	5E-10
24509 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.37	Max	2.3E+02	1.3E+00	2E-03	3E-07
24509 NEPTUNE AVE	Naphthalene	mg/kg	0.00221	95UCL	1.5E+02	4.0E+00	2E-05	6E-10
24509 NEPTUNE AVE	Pyrene	mg/kg	0.404	95UCL	1.7E+03	--	2E-04	--
24509 NEPTUNE AVE	Toluene	µg/kg	0.268	95UCL	4.8E+06	--	6E-08	--
24509 NEPTUNE AVE	TPH as Diesel	mg/kg	1996	95UCL	1.3E+03	--	2E+00	--
24509 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.134	95UCL	7.6E+02	--	2E-04	--
24509 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3376	95UCL	3.3E+03	--	1E+00	--
24509 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	48.52	95UCL	8.3E+04	--	6E-04	--
24509 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	19	Max	8.5E+04	--	2E-04	--
24509 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.715	95UCL	4.0E+03	1.6E+01	2E-04	5E-08

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24509 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.713	95UCL	2.3E+02	--	8E-03	--
24509 PANAMA AVE	Benzene	µg/kg	0.451	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
24509 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.82	Max	1.2E+03	3.5E+01	7E-04	2E-08
24509 PANAMA AVE	Bromomethane	µg/kg	2.5	Max	8.8E+03	--	3E-04	--
24509 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.52	Max	2.3E+02	1.3E+00	2E-03	4E-07
24509 PANAMA AVE	Ethylbenzene	µg/kg	24.87	95UCL	3.3E+06	4.8E+03	8E-06	5E-09
24509 PANAMA AVE	Naphthalene	mg/kg	0.692	95UCL	1.5E+02	4.0E+00	5E-03	2E-07
24509 PANAMA AVE	Pyrene	mg/kg	0.495	95UCL	1.7E+03	--	3E-04	--
24509 PANAMA AVE	Toluene	µg/kg	0.864	95UCL	4.8E+06	--	2E-07	--
24509 PANAMA AVE	TPH as Diesel	mg/kg	2721	95UCL	1.3E+03	--	2E+00	--
24509 PANAMA AVE	TPH as Gasoline	mg/kg	1.637	95UCL	7.6E+02	--	2E-03	--
24509 PANAMA AVE	TPH as Motor Oil	mg/kg	4031	95UCL	3.3E+03	--	1E+00	--
24509 PANAMA AVE	Xylenes, Total	µg/kg	10.71	95UCL	5.6E+05	--	2E-05	--
24509 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.35	95UCL	8.3E+04	--	4E-06	--
24509 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.16	Max	8.5E+04	--	2E-06	--
24509 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.00838	95UCL	4.0E+03	1.6E+01	2E-06	5E-10
24509 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.036	95UCL	2.3E+02	--	2E-04	--
24509 RAVENNA AVE	Benzene	µg/kg	0.147	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24509 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.66	Max	1.2E+03	3.5E+01	5E-04	2E-08
24509 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.31	Max	2.3E+02	1.3E+00	1E-03	2E-07
24509 RAVENNA AVE	Ethylbenzene	µg/kg	0.53	Max	3.3E+06	4.8E+03	2E-07	1E-10
24509 RAVENNA AVE	Naphthalene	mg/kg	0.0126	95UCL	1.5E+02	4.0E+00	8E-05	3E-09
24509 RAVENNA AVE	Pyrene	mg/kg	0.221	95UCL	1.7E+03	--	1E-04	--
24509 RAVENNA AVE	Toluene	µg/kg	0.161	95UCL	4.8E+06	--	3E-08	--
24509 RAVENNA AVE	TPH as Diesel	mg/kg	3562	95UCL	1.3E+03	--	3E+00	--
24509 RAVENNA AVE	TPH as Gasoline	mg/kg	24	Max	7.6E+02	--	3E-02	--
24509 RAVENNA AVE	TPH as Motor Oil	mg/kg	5249	95UCL	3.3E+03	--	2E+00	--
24509 RAVENNA AVE	Xylenes, Total	µg/kg	0.429	95UCL	5.6E+05	--	8E-07	--
24512 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2431	95UCL	8.3E+04	--	3E-02	--
24512 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	604.3	95UCL	8.5E+04	--	7E-03	--
24512 MARBELLA AVE	1-Methylnaphthalene	mg/kg	4.467	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24512 MARBELLA AVE	2-Methylnaphthalene	mg/kg	6.362	95UCL	2.3E+02	--	3E-02	--
24512 MARBELLA AVE	Benzene	µg/kg	269.1	95UCL	6.7E+04	2.2E+02	4E-03	1E-06
24512 MARBELLA AVE	Bromomethane	µg/kg	2.8	Max	8.8E+03	--	3E-04	--
24512 MARBELLA AVE	Cobalt	mg/kg	10.94	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24512 MARBELLA AVE	Ethylbenzene	µg/kg	817.9	95UCL	3.3E+06	4.8E+03	3E-04	2E-07
24512 MARBELLA AVE	Naphthalene	mg/kg	2.722	95UCL	1.5E+02	4.0E+00	2E-02	7E-07
24512 MARBELLA AVE	Pyrene	mg/kg	0.414	95UCL	1.7E+03	--	2E-04	--
24512 MARBELLA AVE	Toluene	µg/kg	0.169	95UCL	4.8E+06	--	4E-08	--
24512 MARBELLA AVE	TPH as Diesel	mg/kg	5208	95UCL	1.3E+03	--	4E+00	--
24512 MARBELLA AVE	TPH as Gasoline	mg/kg	462.1	95UCL	7.6E+02	--	6E-01	--
24512 MARBELLA AVE	TPH as Motor Oil	mg/kg	7207	95UCL	3.3E+03	--	2E+00	--
24512 MARBELLA AVE	Vanadium	mg/kg	40.78	95UCL	3.9E+02	--	1E-01	--
24512 MARBELLA AVE	Xylenes, Total	µg/kg	862	95UCL	5.6E+05	--	2E-03	--
24512 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1600	Max	8.3E+04	--	2E-02	--
24512 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	340	Max	8.5E+04	--	4E-03	--
24512 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.801	95UCL	4.0E+03	1.6E+01	5E-04	1E-07
24512 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.021	95UCL	2.3E+02	--	2E-02	--
24512 NEPTUNE AVE	Benzene	µg/kg	31.93	95UCL	6.7E+04	2.2E+02	5E-04	2E-07
24512 NEPTUNE AVE	Ethylbenzene	µg/kg	560	Max	3.3E+06	4.8E+03	2E-04	1E-07
24512 NEPTUNE AVE	Methylene Chloride	µg/kg	1.4	Max	3.6E+05	5.3E+03	4E-06	3E-10
24512 NEPTUNE AVE	Naphthalene	mg/kg	1.578	95UCL	1.5E+02	4.0E+00	1E-02	4E-07
24512 NEPTUNE AVE	Pyrene	mg/kg	0.559	95UCL	1.7E+03	--	3E-04	--
24512 NEPTUNE AVE	TPH as Diesel	mg/kg	2474	95UCL	1.3E+03	--	2E+00	--
24512 NEPTUNE AVE	TPH as Gasoline	mg/kg	100	Max	7.6E+02	--	1E-01	--
24512 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3496	95UCL	3.3E+03	--	1E+00	--
24512 NEPTUNE AVE	Xylenes, Total	µg/kg	1100	Max	5.6E+05	--	2E-03	--
24512 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.11	Max	8.3E+04	--	1E-06	--
24512 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00201	95UCL	4.0E+03	1.6E+01	5E-07	1E-10
24512 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00387	95UCL	2.3E+02	--	2E-05	--
24512 PANAMA AVE	Benzene	µg/kg	0.15	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24512 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.33	Max	2.3E+02	1.3E+00	1E-03	3E-07

Appendix E
Detailed Risk Calculations

Table E-2
CO₂-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24512 PANAMA AVE	Naphthalene	mg/kg	0.077	95UCL	1.5E+02	4.0E+00	5E-04	2E-08
24512 PANAMA AVE	Pyrene	mg/kg	0.0161	95UCL	1.7E+03	--	9E-06	--
24512 PANAMA AVE	Toluene	µg/kg	0.185	95UCL	4.8E+06	--	4E-08	--
24512 PANAMA AVE	TPH as Diesel	mg/kg	45	Max	1.3E+03	--	4E-02	--
24512 PANAMA AVE	TPH as Gasoline	mg/kg	0.075	Max	7.6E+02	--	1E-04	--
24512 PANAMA AVE	TPH as Motor Oil	mg/kg	140	Max	3.3E+03	--	4E-02	--
24512 PANAMA AVE	Trichloroethene	µg/kg	0.3	Max	5.8E+03	1.2E+03	5E-05	3E-10
24512 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	4669	95UCL	8.3E+04	--	6E-02	--
24512 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	558.9	95UCL	8.5E+04	--	7E-03	--
24512 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.422	95UCL	4.0E+03	1.6E+01	9E-04	2E-07
24512 RAVENNA AVE	2-Methylnaphthalene	mg/kg	5.588	95UCL	2.3E+02	--	2E-02	--
24512 RAVENNA AVE	Benzene	µg/kg	666	95UCL	6.7E+04	2.2E+02	1E-02	3E-06
24512 RAVENNA AVE	Bromomethane	µg/kg	500	Max	8.8E+03	--	6E-02	--
24512 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.3E+02	1.3E+00	1E-03	3E-07
24512 RAVENNA AVE	Ethylbenzene	µg/kg	2057	95UCL	3.3E+06	4.8E+03	6E-04	4E-07
24512 RAVENNA AVE	Naphthalene	mg/kg	2.447	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24512 RAVENNA AVE	Pyrene	mg/kg	0.133	95UCL	1.7E+03	--	8E-05	--
24512 RAVENNA AVE	Toluene	µg/kg	0.182	95UCL	4.8E+06	--	4E-08	--
24512 RAVENNA AVE	TPH as Diesel	mg/kg	3326	95UCL	1.3E+03	--	3E+00	--
24512 RAVENNA AVE	TPH as Gasoline	mg/kg	642	95UCL	7.6E+02	--	8E-01	--
24512 RAVENNA AVE	TPH as Motor Oil	mg/kg	4269	95UCL	3.3E+03	--	1E+00	--
24512 RAVENNA AVE	Xylenes, Total	µg/kg	4502	95UCL	5.6E+05	--	8E-03	--
24513 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1.813	95UCL	8.3E+04	--	2E-05	--
24513 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	12	Max	8.5E+04	--	1E-04	--
24513 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.016	Max	4.0E+03	1.6E+01	4E-06	1E-09
24513 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0143	95UCL	2.3E+02	--	6E-05	--
24513 NEPTUNE AVE	Benzene	µg/kg	0.203	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24513 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
24513 NEPTUNE AVE	Ethylbenzene	µg/kg	32	Max	3.3E+06	4.8E+03	1E-05	7E-09
24513 NEPTUNE AVE	Naphthalene	mg/kg	0.0308	95UCL	1.5E+02	4.0E+00	2E-04	8E-09
24513 NEPTUNE AVE	Pyrene	mg/kg	0.0753	95UCL	1.7E+03	--	4E-05	--
24513 NEPTUNE AVE	Toluene	µg/kg	0.238	95UCL	4.8E+06	--	5E-08	--
24513 NEPTUNE AVE	TPH as Diesel	mg/kg	265.9	95UCL	1.3E+03	--	2E-01	--
24513 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.14	Max	7.6E+02	--	2E-04	--
24513 NEPTUNE AVE	TPH as Motor Oil	mg/kg	530.6	95UCL	3.3E+03	--	2E-01	--
24513 NEPTUNE AVE	Xylenes, Total	µg/kg	52	Max	5.6E+05	--	9E-05	--
24513 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	3238	95UCL	8.3E+04	--	4E-02	--
24513 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	3100	Max	8.5E+04	--	4E-02	--
24513 PANAMA AVE	1-Methylnaphthalene	mg/kg	2.93	95UCL	4.0E+03	1.6E+01	7E-04	2E-07
24513 PANAMA AVE	2-Methylnaphthalene	mg/kg	7.649	95UCL	2.3E+02	--	3E-02	--
24513 PANAMA AVE	Benzene	µg/kg	343.5	95UCL	6.7E+04	2.2E+02	5E-03	2E-06
24513 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.56	Max	1.2E+03	3.5E+01	5E-04	2E-08
24513 PANAMA AVE	Bromomethane	µg/kg	1.8	Max	8.8E+03	--	2E-04	--
24513 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.366	95UCL	2.3E+02	1.3E+00	2E-03	3E-07
24513 PANAMA AVE	Ethylbenzene	µg/kg	909	95UCL	3.3E+06	4.8E+03	3E-04	2E-07
24513 PANAMA AVE	Naphthalene	mg/kg	2.934	95UCL	1.5E+02	4.0E+00	2E-02	7E-07
24513 PANAMA AVE	Pyrene	mg/kg	0.38	95UCL	1.7E+03	--	2E-04	--
24513 PANAMA AVE	Toluene	µg/kg	3.282	95UCL	4.8E+06	--	7E-07	--
24513 PANAMA AVE	TPH as Diesel	mg/kg	4370	95UCL	1.3E+03	--	3E+00	--
24513 PANAMA AVE	TPH as Gasoline	mg/kg	376.5	95UCL	7.6E+02	--	5E-01	--
24513 PANAMA AVE	TPH as Motor Oil	mg/kg	5355	95UCL	3.3E+03	--	2E+00	--
24513 PANAMA AVE	Xylenes, Total	µg/kg	1224	95UCL	5.6E+05	--	2E-03	--
24513 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1	Max	8.3E+04	--	1E-05	--
24513 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.18	Max	3.6E+06	2.8E+03	5E-08	6E-11
24513 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0128	95UCL	4.0E+03	1.6E+01	3E-06	8E-10
24513 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0374	95UCL	2.3E+02	--	2E-04	--
24513 RAVENNA AVE	Benzene	µg/kg	0.34	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
24513 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.16	Max	1.2E+03	3.5E+01	1E-04	5E-09
24513 RAVENNA AVE	Bromodichloromethane	µg/kg	0.17	Max	4.3E+05	4.9E+02	4E-07	4E-10
24513 RAVENNA AVE	Naphthalene	mg/kg	0.0283	95UCL	1.5E+02	4.0E+00	2E-04	7E-09
24513 RAVENNA AVE	Pyrene	mg/kg	0.0475	95UCL	1.7E+03	--	3E-05	--
24513 RAVENNA AVE	Toluene	µg/kg	0.249	95UCL	4.8E+06	--	5E-08	--
24513 RAVENNA AVE	TPH as Diesel	mg/kg	261.7	95UCL	1.3E+03	--	2E-01	--

Appendix E
Detailed Risk Calculations

Table E-2
CO-C Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24513 RAVENNA AVE	TPH as Gasoline	mg/kg	0.12	Max	7.6E+02	--	2E-04	--
24513 RAVENNA AVE	TPH as Motor Oil	mg/kg	397.4	95UCL	3.3E+03	--	1E-01	--
24513 RAVENNA AVE	Xylenes, Total	µg/kg	0.32	Max	5.6E+05	--	6E-07	--
24516 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2129	95UCL	8.3E+04	--	3E-02	--
24516 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	171.1	95UCL	8.5E+04	--	2E-03	--
24516 MARBELLA AVE	1-Methylnaphthalene	mg/kg	1.812	95UCL	4.0E+03	1.6E+01	5E-04	1E-07
24516 MARBELLA AVE	2-Methylnaphthalene	mg/kg	5.208	95UCL	2.3E+02	--	2E-02	--
24516 MARBELLA AVE	Benzene	µg/kg	76.62	95UCL	6.7E+04	2.2E+02	1E-03	4E-07
24516 MARBELLA AVE	Bromomethane	µg/kg	2.3	Max	8.8E+03	--	3E-04	--
24516 MARBELLA AVE	Ethylbenzene	µg/kg	462.9	95UCL	3.3E+06	4.8E+03	1E-04	1E-07
24516 MARBELLA AVE	Naphthalene	mg/kg	1.983	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24516 MARBELLA AVE	Pyrene	mg/kg	0.296	95UCL	1.7E+03	--	2E-04	--
24516 MARBELLA AVE	Toluene	µg/kg	0.494	95UCL	4.8E+06	--	1E-07	--
24516 MARBELLA AVE	TPH as Diesel	mg/kg	2400	95UCL	1.3E+03	--	2E+00	--
24516 MARBELLA AVE	TPH as Gasoline	mg/kg	231.1	95UCL	7.6E+02	--	3E-01	--
24516 MARBELLA AVE	TPH as Motor Oil	mg/kg	3578	95UCL	3.3E+03	--	1E+00	--
24516 MARBELLA AVE	Xylenes, Total	µg/kg	652.9	95UCL	5.6E+05	--	1E-03	--
24517 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.23	Max	8.3E+04	--	3E-06	--
24517 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.11	Max	4.0E+03	1.6E+01	3E-05	7E-09
24517 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.021	Max	2.3E+02	--	9E-05	--
24517 MARBELLA AVE	Benzene	µg/kg	0.2	Max	6.7E+04	2.2E+02	3E-06	9E-10
24517 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.39	Max	2.3E+02	1.3E+00	2E-03	3E-07
24517 MARBELLA AVE	Cobalt	mg/kg	12.22	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24517 MARBELLA AVE	Naphthalene	mg/kg	0.12	Max	1.5E+02	4.0E+00	8E-04	3E-08
24517 MARBELLA AVE	Pyrene	mg/kg	0.765	95UCL	1.7E+03	--	5E-04	--
24517 MARBELLA AVE	Toluene	µg/kg	0.56	Max	4.8E+06	--	1E-07	--
24517 MARBELLA AVE	TPH as Diesel	mg/kg	768.1	95UCL	1.3E+03	--	6E-01	--
24517 MARBELLA AVE	TPH as Gasoline	mg/kg	0.23	Max	7.6E+02	--	3E-04	--
24517 MARBELLA AVE	TPH as Motor Oil	mg/kg	1787	95UCL	3.3E+03	--	5E-01	--
24517 MARBELLA AVE	Vanadium	mg/kg	44.22	95UCL	3.9E+02	--	1E-01	--
24518 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	12.57	95UCL	8.3E+04	--	2E-04	--
24518 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.725	95UCL	4.0E+03	1.6E+01	4E-04	1E-07
24518 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	5.137	95UCL	2.3E+02	--	2E-02	--
24518 NEPTUNE AVE	Benzene	µg/kg	36.8	95UCL	6.7E+04	2.2E+02	6E-04	2E-07
24518 NEPTUNE AVE	Bromomethane	µg/kg	30.4	95UCL	8.8E+03	--	4E-03	--
24518 NEPTUNE AVE	Cobalt	mg/kg	9.129	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24518 NEPTUNE AVE	Ethylbenzene	µg/kg	427.6	95UCL	3.3E+06	4.8E+03	1E-04	9E-08
24518 NEPTUNE AVE	Naphthalene	mg/kg	1.95	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24518 NEPTUNE AVE	Pyrene	mg/kg	0.365	95UCL	1.7E+03	--	2E-04	--
24518 NEPTUNE AVE	Toluene	µg/kg	3.014	95UCL	4.8E+06	--	6E-07	--
24518 NEPTUNE AVE	TPH as Diesel	mg/kg	2144	95UCL	1.3E+03	--	2E+00	--
24518 NEPTUNE AVE	TPH as Gasoline	mg/kg	219	95UCL	7.6E+02	--	3E-01	--
24518 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2612	95UCL	3.3E+03	--	8E-01	--
24518 NEPTUNE AVE	Xylenes, Total	µg/kg	7.191	95UCL	5.6E+05	--	1E-05	--
24518 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.16	Max	8.3E+04	--	2E-06	--
24518 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.024	Max	4.0E+03	1.6E+01	6E-06	2E-09
24518 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0119	95UCL	2.3E+02	--	5E-05	--
24518 PANAMA AVE	Benzene	µg/kg	0.31	Max	6.7E+04	2.2E+02	5E-06	1E-09
24518 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.61	Max	1.2E+03	3.5E+01	5E-04	2E-08
24518 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.369	95UCL	2.3E+02	1.3E+00	2E-03	3E-07
24518 PANAMA AVE	Naphthalene	mg/kg	0.00384	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
24518 PANAMA AVE	Pyrene	mg/kg	0.0291	95UCL	1.7E+03	--	2E-05	--
24518 PANAMA AVE	Toluene	µg/kg	0.205	95UCL	4.8E+06	--	4E-08	--
24518 PANAMA AVE	TPH as Diesel	mg/kg	57.09	95UCL	1.3E+03	--	4E-02	--
24518 PANAMA AVE	TPH as Gasoline	mg/kg	0.0766	95UCL	7.6E+02	--	1E-04	--
24518 PANAMA AVE	TPH as Motor Oil	mg/kg	180.6	95UCL	3.3E+03	--	6E-02	--
24518 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1505	95UCL	8.3E+04	--	2E-02	--
24518 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	43	Max	8.5E+04	--	5E-04	--
24518 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.964	95UCL	4.0E+03	1.6E+01	7E-04	2E-07
24518 RAVENNA AVE	2-Methylnaphthalene	mg/kg	6.785	95UCL	2.3E+02	--	3E-02	--
24518 RAVENNA AVE	Benzene	µg/kg	137.7	95UCL	6.7E+04	2.2E+02	2E-03	6E-07
24518 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.24	Max	2.3E+02	1.3E+00	1E-03	2E-07
24518 RAVENNA AVE	Ethylbenzene	µg/kg	1131	95UCL	3.3E+06	4.8E+03	4E-04	2E-07

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24518 RAVENNA AVE	Naphthalene	mg/kg	3.252	95UCL	1.5E+02	4.0E+00	2E-02	8E-07
24518 RAVENNA AVE	Pyrene	mg/kg	0.598	95UCL	1.7E+03	--	4E-04	--
24518 RAVENNA AVE	Tetrachloroethene	µg/kg	0.44	Max	8.6E+04	5.5E+02	5E-06	8E-10
24518 RAVENNA AVE	Toluene	µg/kg	0.321	95UCL	4.8E+06	--	7E-08	--
24518 RAVENNA AVE	TPH as Diesel	mg/kg	4447	95UCL	1.3E+03	--	3E+00	--
24518 RAVENNA AVE	TPH as Gasoline	mg/kg	444.2	95UCL	7.6E+02	--	6E-01	--
24518 RAVENNA AVE	TPH as Motor Oil	mg/kg	4808	95UCL	3.3E+03	--	2E+00	--
24518 RAVENNA AVE	Xylenes, Total	µg/kg	263	95UCL	5.6E+05	--	5E-04	--
24519 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	2.211	95UCL	8.3E+04	--	3E-05	--
24519 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1.8	Max	8.5E+04	--	2E-05	--
24519 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.25	Max	3.6E+06	2.8E+03	7E-08	9E-11
24519 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.209	95UCL	4.0E+03	1.6E+01	3E-04	8E-08
24519 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	3.413	95UCL	2.3E+02	--	2E-02	--
24519 NEPTUNE AVE	Benzene	µg/kg	0.439	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
24519 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.23	Max	1.2E+03	3.5E+01	2E-04	7E-09
24519 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.3E+02	1.3E+00	2E-03	3E-07
24519 NEPTUNE AVE	Ethylbenzene	µg/kg	150.7	95UCL	3.3E+06	4.8E+03	5E-05	3E-08
24519 NEPTUNE AVE	Naphthalene	mg/kg	1.196	95UCL	1.5E+02	4.0E+00	8E-03	3E-07
24519 NEPTUNE AVE	Pyrene	mg/kg	0.202	95UCL	1.7E+03	--	1E-04	--
24519 NEPTUNE AVE	Toluene	µg/kg	3.8	95UCL	4.8E+06	--	8E-07	--
24519 NEPTUNE AVE	TPH as Diesel	mg/kg	2156	95UCL	1.3E+03	--	2E+00	--
24519 NEPTUNE AVE	TPH as Gasoline	mg/kg	190	Max	7.6E+02	--	3E-01	--
24519 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2380	95UCL	3.3E+03	--	7E-01	--
24519 NEPTUNE AVE	Xylenes, Total	µg/kg	9.46	95UCL	5.6E+05	--	2E-05	--
24519 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1190	95UCL	8.3E+04	--	1E-02	--
24519 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	150	Max	8.5E+04	--	2E-03	--
24519 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.37	95UCL	4.0E+03	1.6E+01	3E-04	9E-08
24519 PANAMA AVE	2-Methylnaphthalene	mg/kg	3.63	95UCL	2.3E+02	--	2E-02	--
24519 PANAMA AVE	Benzene	µg/kg	209.9	95UCL	6.7E+04	2.2E+02	3E-03	1E-06
24519 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.268	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24519 PANAMA AVE	Ethylbenzene	µg/kg	1115	95UCL	3.3E+06	4.8E+03	3E-04	2E-07
24519 PANAMA AVE	Naphthalene	mg/kg	2.044	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24519 PANAMA AVE	Pyrene	mg/kg	0.421	95UCL	1.7E+03	--	3E-04	--
24519 PANAMA AVE	Toluene	µg/kg	0.231	95UCL	4.8E+06	--	5E-08	--
24519 PANAMA AVE	TPH as Diesel	mg/kg	3252	95UCL	1.3E+03	--	3E+00	--
24519 PANAMA AVE	TPH as Gasoline	mg/kg	189	95UCL	7.6E+02	--	3E-01	--
24519 PANAMA AVE	TPH as Motor Oil	mg/kg	3075	95UCL	3.3E+03	--	9E-01	--
24519 PANAMA AVE	Xylenes, Total	µg/kg	185.2	95UCL	5.6E+05	--	3E-04	--
24522 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	12000	Max	8.3E+04	--	2E-01	--
24522 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	340	Max	8.5E+04	--	4E-03	--
24522 MARBELLA AVE	1-Methylnaphthalene	mg/kg	4.662	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24522 MARBELLA AVE	2-Methylnaphthalene	mg/kg	13.62	95UCL	2.3E+02	--	6E-02	--
24522 MARBELLA AVE	Benzene	µg/kg	911.2	95UCL	6.7E+04	2.2E+02	1E-02	4E-06
24522 MARBELLA AVE	Cobalt	mg/kg	12.36	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24522 MARBELLA AVE	Ethylbenzene	µg/kg	11000	Max	3.3E+06	4.8E+03	3E-03	2E-06
24522 MARBELLA AVE	Naphthalene	mg/kg	3.401	95UCL	1.5E+02	4.0E+00	2E-02	9E-07
24522 MARBELLA AVE	Pyrene	mg/kg	0.092	95UCL	1.7E+03	--	5E-05	--
24522 MARBELLA AVE	Toluene	µg/kg	0.272	95UCL	4.8E+06	--	6E-08	--
24522 MARBELLA AVE	TPH as Diesel	mg/kg	11290	95UCL	1.3E+03	--	9E+00	--
24522 MARBELLA AVE	TPH as Gasoline	mg/kg	439.9	95UCL	7.6E+02	--	6E-01	--
24522 MARBELLA AVE	TPH as Motor Oil	mg/kg	11693	95UCL	3.3E+03	--	4E+00	--
24522 MARBELLA AVE	Vanadium	mg/kg	42.97	95UCL	3.9E+02	--	1E-01	--
24522 MARBELLA AVE	Xylenes, Total	µg/kg	670	Max	5.6E+05	--	1E-03	--
24522 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	9.893	95UCL	8.3E+04	--	1E-04	--
24522 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.139	95UCL	4.0E+03	1.6E+01	3E-04	7E-08
24522 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	1.965	95UCL	2.3E+02	--	9E-03	--
24522 NEPTUNE AVE	Benzene	µg/kg	0.209	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24522 NEPTUNE AVE	Cobalt	mg/kg	9.552	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24522 NEPTUNE AVE	Ethylbenzene	µg/kg	420	Max	3.3E+06	4.8E+03	1E-04	9E-08
24522 NEPTUNE AVE	Methylene Chloride	µg/kg	4.9	Max	3.6E+05	5.3E+03	1E-05	9E-10
24522 NEPTUNE AVE	Naphthalene	mg/kg	0.747	95UCL	1.5E+02	4.0E+00	5E-03	2E-07
24522 NEPTUNE AVE	Pyrene	mg/kg	0.514	95UCL	1.7E+03	--	3E-04	--
24522 NEPTUNE AVE	Toluene	µg/kg	0.238	95UCL	4.8E+06	--	5E-08	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24522 NEPTUNE AVE	TPH as Diesel	mg/kg	1538	95UCL	1.3E+03	--	1E+00	--
24522 NEPTUNE AVE	TPH as Gasoline	mg/kg	63.82	95UCL	7.6E+02	--	8E-02	--
24522 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3149	95UCL	3.3E+03	--	1E+00	--
24522 NEPTUNE AVE	Xylenes, Total	µg/kg	22	Max	5.6E+05	--	4E-05	--
24522 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.86	Max	8.3E+04	--	1E-05	--
24522 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.22	Max	8.5E+04	--	3E-06	--
24522 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0053	Max	4.0E+03	1.6E+01	1E-06	3E-10
24522 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00201	95UCL	2.3E+02	--	9E-06	--
24522 PANAMA AVE	Benzene	µg/kg	3.216	95UCL	6.7E+04	2.2E+02	5E-05	2E-08
24522 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.349	95UCL	2.3E+02	1.3E+00	2E-03	3E-07
24522 PANAMA AVE	Ethylbenzene	µg/kg	2.9	Max	3.3E+06	4.8E+03	9E-07	6E-10
24522 PANAMA AVE	Naphthalene	mg/kg	0.00138	95UCL	1.5E+02	4.0E+00	9E-06	4E-10
24522 PANAMA AVE	Pyrene	mg/kg	0.00499	95UCL	1.7E+03	--	3E-06	--
24522 PANAMA AVE	Toluene	µg/kg	3.55	95UCL	4.8E+06	--	7E-07	--
24522 PANAMA AVE	TPH as Diesel	mg/kg	160	Max	1.3E+03	--	1E-01	--
24522 PANAMA AVE	TPH as Gasoline	mg/kg	0.11	Max	7.6E+02	--	1E-04	--
24522 PANAMA AVE	TPH as Motor Oil	mg/kg	111.5	95UCL	3.3E+03	--	3E-02	--
24522 PANAMA AVE	Xylenes, Total	µg/kg	6	Max	5.6E+05	--	1E-05	--
24522 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1018	95UCL	8.3E+04	--	1E-02	--
24522 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	99	Max	8.5E+04	--	1E-03	--
24522 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.391	95UCL	4.0E+03	1.6E+01	8E-04	2E-07
24522 RAVENNA AVE	2-Methylnaphthalene	mg/kg	5.199	95UCL	2.3E+02	--	2E-02	--
24522 RAVENNA AVE	Benzene	µg/kg	277.9	95UCL	6.7E+04	2.2E+02	4E-03	1E-06
24522 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.3E+02	1.3E+00	1E-03	3E-07
24522 RAVENNA AVE	Ethylbenzene	µg/kg	1968	95UCL	3.3E+06	4.8E+03	6E-04	4E-07
24522 RAVENNA AVE	Naphthalene	mg/kg	2.453	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24522 RAVENNA AVE	Pyrene	mg/kg	0.311	95UCL	1.7E+03	--	2E-04	--
24522 RAVENNA AVE	Toluene	µg/kg	4.655	95UCL	4.8E+06	--	1E-06	--
24522 RAVENNA AVE	TPH as Diesel	mg/kg	2088	95UCL	1.3E+03	--	2E+00	--
24522 RAVENNA AVE	TPH as Gasoline	mg/kg	348.4	95UCL	7.6E+02	--	5E-01	--
24522 RAVENNA AVE	TPH as Motor Oil	mg/kg	2083	95UCL	3.3E+03	--	6E-01	--
24522 RAVENNA AVE	Xylenes, Total	µg/kg	169	95UCL	5.6E+05	--	3E-04	--
24523 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.27	Max	8.3E+04	--	3E-06	--
24523 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.00961	95UCL	4.0E+03	1.6E+01	2E-06	6E-10
24523 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0403	95UCL	2.3E+02	--	2E-04	--
24523 MARBELLA AVE	Benzene	µg/kg	0.273	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24523 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.54	Max	1.2E+03	3.5E+01	4E-04	2E-08
24523 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.3E+02	1.3E+00	9E-04	2E-07
24523 MARBELLA AVE	Cobalt	mg/kg	11.16	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24523 MARBELLA AVE	Naphthalene	mg/kg	0.0187	95UCL	1.5E+02	4.0E+00	1E-04	5E-09
24523 MARBELLA AVE	Pyrene	mg/kg	0.396	95UCL	1.7E+03	--	2E-04	--
24523 MARBELLA AVE	Tetrachloroethene	µg/kg	0.955	95UCL	8.6E+04	5.5E+02	1E-05	2E-09
24523 MARBELLA AVE	Toluene	µg/kg	0.213	95UCL	4.8E+06	--	4E-08	--
24523 MARBELLA AVE	TPH as Diesel	mg/kg	444.3	95UCL	1.3E+03	--	3E-01	--
24523 MARBELLA AVE	TPH as Gasoline	mg/kg	0.092	Max	7.6E+02	--	1E-04	--
24523 MARBELLA AVE	TPH as Motor Oil	mg/kg	551.8	95UCL	3.3E+03	--	2E-01	--
24523 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	7935	95UCL	8.3E+04	--	1E-01	--
24523 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	9200	Max	8.5E+04	--	1E-01	--
24523 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	4.102	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24523 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	10.65	95UCL	2.3E+02	--	5E-02	--
24523 NEPTUNE AVE	Benzene	µg/kg	2505	95UCL	6.7E+04	2.2E+02	4E-02	1E-05
24523 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.5	Max	1.2E+03	3.5E+01	4E-04	1E-08
24523 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.31	Max	2.3E+02	1.3E+00	1E-03	2E-07
24523 NEPTUNE AVE	Cobalt	mg/kg	10	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24523 NEPTUNE AVE	Ethylbenzene	µg/kg	3776	95UCL	3.3E+06	4.8E+03	1E-03	8E-07
24523 NEPTUNE AVE	Naphthalene	mg/kg	4.208	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24523 NEPTUNE AVE	Pyrene	mg/kg	1.43	95UCL	1.7E+03	--	8E-04	--
24523 NEPTUNE AVE	Toluene	µg/kg	30.33	95UCL	4.8E+06	--	6E-06	--
24523 NEPTUNE AVE	TPH as Diesel	mg/kg	7398	95UCL	1.3E+03	--	6E+00	--
24523 NEPTUNE AVE	TPH as Gasoline	mg/kg	728.9	95UCL	7.6E+02	--	1E+00	--
24523 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7242	95UCL	3.3E+03	--	2E+00	--
24523 NEPTUNE AVE	Xylenes, Total	µg/kg	13879	95UCL	5.6E+05	--	3E-02	--
24523 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	10.8	95UCL	8.3E+04	--	1E-04	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24523 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	1	Max	3.6E+06	2.8E+03	3E-07	4E-10
24523 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.81	95UCL	4.0E+03	1.6E+01	5E-04	1E-07
24523 RAVENNA AVE	2-Methylnaphthalene	mg/kg	4.28	95UCL	2.3E+02	--	2E-02	--
24523 RAVENNA AVE	Benzene	µg/kg	0.259	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24523 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.11	Max	2.3E+02	1.3E+00	5E-04	9E-08
24523 RAVENNA AVE	Ethylbenzene	µg/kg	462.4	95UCL	3.3E+06	4.8E+03	1E-04	1E-07
24523 RAVENNA AVE	Naphthalene	mg/kg	2.071	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24523 RAVENNA AVE	Pyrene	mg/kg	0.399	95UCL	1.7E+03	--	2E-04	--
24523 RAVENNA AVE	Toluene	µg/kg	0.356	95UCL	4.8E+06	--	7E-08	--
24523 RAVENNA AVE	TPH as Diesel	mg/kg	1950	95UCL	1.3E+03	--	2E+00	--
24523 RAVENNA AVE	TPH as Gasoline	mg/kg	174.1	95UCL	7.6E+02	--	2E-01	--
24523 RAVENNA AVE	TPH as Motor Oil	mg/kg	2213	95UCL	3.3E+03	--	7E-01	--
24523 RAVENNA AVE	Trichloroethene	µg/kg	0.24	Max	5.8E+03	1.2E+03	4E-05	2E-10
24523 RAVENNA AVE	Xylenes, Total	µg/kg	29	Max	5.6E+05	--	5E-05	--
24526 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	10314	95UCL	8.3E+04	--	1E-01	--
24526 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	7100	Max	8.5E+04	--	8E-02	--
24526 MARBELLA AVE	1-Methylnaphthalene	mg/kg	12.1	95UCL	4.0E+03	1.6E+01	3E-03	8E-07
24526 MARBELLA AVE	2-Methylnaphthalene	mg/kg	17.81	95UCL	2.3E+02	--	8E-02	--
24526 MARBELLA AVE	Benzene	µg/kg	6053	95UCL	6.7E+04	2.2E+02	9E-02	3E-05
24526 MARBELLA AVE	Bromodichloromethane	µg/kg	5.2	Max	4.3E+05	4.9E+02	1E-05	1E-08
24526 MARBELLA AVE	Bromomethane	µg/kg	9.2	Max	8.8E+03	--	1E-03	--
24526 MARBELLA AVE	Cobalt	mg/kg	11.79	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24526 MARBELLA AVE	Ethylbenzene	µg/kg	5526	95UCL	3.3E+06	4.8E+03	2E-03	1E-06
24526 MARBELLA AVE	Naphthalene	mg/kg	8.475	95UCL	1.5E+02	4.0E+00	6E-02	2E-06
24526 MARBELLA AVE	Pyrene	mg/kg	0.635	95UCL	1.7E+03	--	4E-04	--
24526 MARBELLA AVE	Toluene	µg/kg	6.94	95UCL	4.8E+06	--	1E-06	--
24526 MARBELLA AVE	TPH as Diesel	mg/kg	8779	95UCL	1.3E+03	--	7E+00	--
24526 MARBELLA AVE	TPH as Gasoline	mg/kg	1211	95UCL	7.6E+02	--	2E+00	--
24526 MARBELLA AVE	TPH as Motor Oil	mg/kg	8722	95UCL	3.3E+03	--	3E+00	--
24526 MARBELLA AVE	Xylenes, Total	µg/kg	5810	95UCL	5.6E+05	--	1E-02	--
24528 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	31	Max	8.3E+04	--	4E-04	--
24528 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	12	Max	8.5E+04	--	1E-04	--
24528 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.51	95UCL	4.0E+03	1.6E+01	4E-04	1E-07
24528 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.762	95UCL	2.3E+02	--	3E-03	--
24528 NEPTUNE AVE	Benzene	µg/kg	0.526	95UCL	6.7E+04	2.2E+02	8E-06	2E-09
24528 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.485	95UCL	1.2E+03	3.5E+01	4E-04	1E-08
24528 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.253	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24528 NEPTUNE AVE	Ethylbenzene	µg/kg	1300	Max	3.3E+06	4.8E+03	4E-04	3E-07
24528 NEPTUNE AVE	Naphthalene	mg/kg	0.606	95UCL	1.5E+02	4.0E+00	4E-03	2E-07
24528 NEPTUNE AVE	Pyrene	mg/kg	0.0666	95UCL	1.7E+03	--	4E-05	--
24528 NEPTUNE AVE	Tetrachloroethene	µg/kg	0.19	Max	8.6E+04	5.5E+02	2E-06	3E-10
24528 NEPTUNE AVE	Toluene	µg/kg	0.476	95UCL	4.8E+06	--	1E-07	--
24528 NEPTUNE AVE	TPH as Diesel	mg/kg	979.1	95UCL	1.3E+03	--	8E-01	--
24528 NEPTUNE AVE	TPH as Gasoline	mg/kg	179.6	95UCL	7.6E+02	--	2E-01	--
24528 NEPTUNE AVE	TPH as Motor Oil	mg/kg	932.8	95UCL	3.3E+03	--	3E-01	--
24528 NEPTUNE AVE	Xylenes, Total	µg/kg	57	Max	5.6E+05	--	1E-04	--
24528 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0127	95UCL	4.0E+03	1.6E+01	3E-06	8E-10
24528 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0621	95UCL	2.3E+02	--	3E-04	--
24528 PANAMA AVE	Benzene	µg/kg	1.209	95UCL	6.7E+04	2.2E+02	2E-05	6E-09
24528 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.11	Max	1.2E+03	3.5E+01	9E-05	3E-09
24528 PANAMA AVE	Ethylbenzene	µg/kg	0.15	Max	3.3E+06	4.8E+03	5E-08	3E-11
24528 PANAMA AVE	Naphthalene	mg/kg	0.0132	95UCL	1.5E+02	4.0E+00	9E-05	3E-09
24528 PANAMA AVE	Pyrene	mg/kg	0.583	95UCL	1.7E+03	--	3E-04	--
24528 PANAMA AVE	Toluene	µg/kg	0.88	Max	4.8E+06	--	2E-07	--
24528 PANAMA AVE	TPH as Diesel	mg/kg	341.7	95UCL	1.3E+03	--	3E-01	--
24528 PANAMA AVE	TPH as Gasoline	mg/kg	5.681	95UCL	7.6E+02	--	8E-03	--
24528 PANAMA AVE	TPH as Motor Oil	mg/kg	1222	95UCL	3.3E+03	--	4E-01	--
24528 PANAMA AVE	Xylenes, Total	µg/kg	0.282	95UCL	5.6E+05	--	5E-07	--
24529 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	7145	95UCL	8.3E+04	--	9E-02	--
24529 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	12000	Max	8.5E+04	--	1E-01	--
24529 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	6.906	95UCL	4.0E+03	1.6E+01	2E-03	4E-07
24529 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	19.76	95UCL	2.3E+02	--	9E-02	--
24529 NEPTUNE AVE	Benzene	µg/kg	2617	95UCL	6.7E+04	2.2E+02	4E-02	1E-05

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24529 NEPTUNE AVE	Bromodichloromethane	µg/kg	0.28	Max	4.3E+05	4.9E+02	7E-07	6E-10
24529 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.42	Max	2.3E+02	1.3E+00	2E-03	3E-07
24529 NEPTUNE AVE	Ethylbenzene	µg/kg	3766	95UCL	3.3E+06	4.8E+03	1E-03	8E-07
24529 NEPTUNE AVE	Naphthalene	mg/kg	5.482	95UCL	1.5E+02	4.0E+00	4E-02	1E-06
24529 NEPTUNE AVE	Pyrene	mg/kg	5.149	95UCL	1.7E+03	--	3E-03	--
24529 NEPTUNE AVE	Toluene	µg/kg	1707	95UCL	4.8E+06	--	4E-04	--
24529 NEPTUNE AVE	TPH as Diesel	mg/kg	5268	95UCL	1.3E+03	--	4E+00	--
24529 NEPTUNE AVE	TPH as Gasoline	mg/kg	423.4	95UCL	7.6E+02	--	6E-01	--
24529 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6535	95UCL	3.3E+03	--	2E+00	--
24529 NEPTUNE AVE	Xylenes, Total	µg/kg	16010	95UCL	5.6E+05	--	3E-02	--
24529 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.41	Max	8.3E+04	--	5E-06	--
24529 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0057	Max	4.0E+03	1.6E+01	1E-06	4E-10
24529 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.019	Max	2.3E+02	--	8E-05	--
24529 PANAMA AVE	Benzene	µg/kg	0.164	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24529 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.511	95UCL	2.3E+02	1.3E+00	2E-03	4E-07
24529 PANAMA AVE	Naphthalene	mg/kg	0.0059	Max	1.5E+02	4.0E+00	4E-05	2E-09
24529 PANAMA AVE	Pyrene	mg/kg	0.0103	95UCL	1.7E+03	--	6E-06	--
24529 PANAMA AVE	Toluene	µg/kg	1.1	Max	4.8E+06	--	2E-07	--
24529 PANAMA AVE	TPH as Diesel	mg/kg	83	Max	1.3E+03	--	6E-02	--
24529 PANAMA AVE	TPH as Gasoline	mg/kg	0.0793	95UCL	7.6E+02	--	1E-04	--
24529 PANAMA AVE	TPH as Motor Oil	mg/kg	65.47	95UCL	3.3E+03	--	2E-02	--
24529 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	11	Max	8.3E+04	--	1E-04	--
24529 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.53	Max	8.5E+04	--	6E-06	--
24529 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.58	95UCL	4.0E+03	1.6E+01	4E-04	1E-07
24529 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.87	95UCL	2.3E+02	--	8E-03	--
24529 RAVENNA AVE	Benzene	µg/kg	0.281	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24529 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.22	Max	1.2E+03	3.5E+01	2E-04	6E-09
24529 RAVENNA AVE	Bromodichloromethane	µg/kg	1.2	Max	4.3E+05	4.9E+02	3E-06	3E-09
24529 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	2.3E+02	1.3E+00	1E-03	2E-07
24529 RAVENNA AVE	Ethylbenzene	µg/kg	2	Max	3.3E+06	4.8E+03	6E-07	4E-10
24529 RAVENNA AVE	Naphthalene	mg/kg	0.553	95UCL	1.5E+02	4.0E+00	4E-03	1E-07
24529 RAVENNA AVE	Pyrene	mg/kg	0.167	95UCL	1.7E+03	--	1E-04	--
24529 RAVENNA AVE	Toluene	µg/kg	1.6	Max	4.8E+06	--	3E-07	--
24529 RAVENNA AVE	TPH as Diesel	mg/kg	1578	95UCL	1.3E+03	--	1E+00	--
24529 RAVENNA AVE	TPH as Gasoline	mg/kg	28.76	95UCL	7.6E+02	--	4E-02	--
24529 RAVENNA AVE	TPH as Motor Oil	mg/kg	2258	95UCL	3.3E+03	--	7E-01	--
24532 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	6410	95UCL	8.3E+04	--	8E-02	--
24532 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	2300	Max	8.5E+04	--	3E-02	--
24532 MARBELLA AVE	1-Methylnaphthalene	mg/kg	5.142	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24532 MARBELLA AVE	2-Methylnaphthalene	mg/kg	13.5	95UCL	2.3E+02	--	6E-02	--
24532 MARBELLA AVE	Benzene	µg/kg	1450	95UCL	6.7E+04	2.2E+02	2E-02	7E-06
24532 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.79	Max	1.2E+03	3.5E+01	7E-04	2E-08
24532 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.169	95UCL	2.3E+02	1.3E+00	7E-04	1E-07
24532 MARBELLA AVE	Cobalt	mg/kg	11.98	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24532 MARBELLA AVE	Ethylbenzene	µg/kg	2879	95UCL	3.3E+06	4.8E+03	9E-04	6E-07
24532 MARBELLA AVE	Naphthalene	mg/kg	5.99	95UCL	1.5E+02	4.0E+00	4E-02	2E-06
24532 MARBELLA AVE	Pyrene	mg/kg	0.367	95UCL	1.7E+03	--	2E-04	--
24532 MARBELLA AVE	Toluene	µg/kg	0.3	Max	4.8E+06	--	6E-08	--
24532 MARBELLA AVE	TPH as Diesel	mg/kg	8905	95UCL	1.3E+03	--	7E+00	--
24532 MARBELLA AVE	TPH as Gasoline	mg/kg	488	95UCL	7.6E+02	--	6E-01	--
24532 MARBELLA AVE	TPH as Motor Oil	mg/kg	8315	95UCL	3.3E+03	--	3E+00	--
24532 MARBELLA AVE	Xylenes, Total	µg/kg	2057	95UCL	5.6E+05	--	4E-03	--
24532 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.00198	95UCL	2.3E+02	--	9E-06	--
24532 NEPTUNE AVE	Benzene	µg/kg	0.463	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
24532 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	7.5	Max	1.2E+03	3.5E+01	6E-03	2E-07
24532 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.31	Max	2.3E+02	1.3E+00	1E-03	2E-07
24532 NEPTUNE AVE	Ethylbenzene	µg/kg	2.2	Max	3.3E+06	4.8E+03	7E-07	5E-10
24532 NEPTUNE AVE	Naphthalene	mg/kg	0.00141	95UCL	1.5E+02	4.0E+00	9E-06	4E-10
24532 NEPTUNE AVE	Pyrene	mg/kg	0.00944	95UCL	1.7E+03	--	6E-06	--
24532 NEPTUNE AVE	Toluene	µg/kg	0.409	95UCL	4.8E+06	--	9E-08	--
24532 NEPTUNE AVE	TPH as Diesel	mg/kg	16.83	95UCL	1.3E+03	--	1E-02	--
24532 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.0946	95UCL	7.6E+02	--	1E-04	--
24532 NEPTUNE AVE	TPH as Motor Oil	mg/kg	52.39	95UCL	3.3E+03	--	2E-02	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24532 NEPTUNE AVE	Xylenes, Total	µg/kg	25	Max	5.6E+05	--	5E-05	--
24532 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.89	Max	8.3E+04	--	1E-05	--
24532 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	1.6	Max	8.5E+04	--	2E-05	--
24532 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.115	95UCL	4.0E+03	1.6E+01	3E-05	7E-09
24532 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0832	95UCL	2.3E+02	--	4E-04	--
24532 PANAMA AVE	Benzene	µg/kg	0.176	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24532 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.2	Max	1.2E+03	3.5E+01	2E-04	6E-09
24532 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	2.3E+02	1.3E+00	1E-03	2E-07
24532 PANAMA AVE	Ethylbenzene	µg/kg	16	Max	3.3E+06	4.8E+03	5E-06	3E-09
24532 PANAMA AVE	Naphthalene	mg/kg	0.0756	95UCL	1.5E+02	4.0E+00	5E-04	2E-08
24532 PANAMA AVE	Pyrene	mg/kg	0.692	95UCL	1.7E+03	--	4E-04	--
24532 PANAMA AVE	TPH as Diesel	mg/kg	813.3	95UCL	1.3E+03	--	6E-01	--
24532 PANAMA AVE	TPH as Gasoline	mg/kg	19.44	95UCL	7.6E+02	--	3E-02	--
24532 PANAMA AVE	TPH as Motor Oil	mg/kg	1445	95UCL	3.3E+03	--	4E-01	--
24532 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.18	Max	8.3E+04	--	2E-06	--
24532 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.2	Max	3.6E+06	2.8E+03	6E-08	7E-11
24532 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.00306	95UCL	4.0E+03	1.6E+01	8E-07	2E-10
24532 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00557	95UCL	2.3E+02	--	2E-05	--
24532 RAVENNA AVE	Benzene	µg/kg	0.346	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
24532 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.2	Max	1.2E+03	3.5E+01	2E-04	6E-09
24532 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.348	95UCL	2.3E+02	1.3E+00	2E-03	3E-07
24532 RAVENNA AVE	Ethylbenzene	µg/kg	0.26	Max	3.3E+06	4.8E+03	8E-08	5E-11
24532 RAVENNA AVE	Naphthalene	mg/kg	0.00419	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
24532 RAVENNA AVE	Pyrene	mg/kg	0.00727	95UCL	1.7E+03	--	4E-06	--
24532 RAVENNA AVE	Toluene	µg/kg	0.255	95UCL	4.8E+06	--	5E-08	--
24532 RAVENNA AVE	TPH as Diesel	mg/kg	50.45	95UCL	1.3E+03	--	4E-02	--
24532 RAVENNA AVE	TPH as Gasoline	mg/kg	0.11	Max	7.6E+02	--	1E-04	--
24532 RAVENNA AVE	TPH as Motor Oil	mg/kg	181.4	95UCL	3.3E+03	--	6E-02	--
24532 RAVENNA AVE	Xylenes, Total	µg/kg	0.24	Max	5.6E+05	--	4E-07	--
24533 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.77	Max	8.3E+04	--	9E-06	--
24533 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.115	95UCL	8.5E+04	--	1E-06	--
24533 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.00384	95UCL	4.0E+03	1.6E+01	1E-06	3E-10
24533 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0056	95UCL	2.3E+02	--	2E-05	--
24533 MARBELLA AVE	Benzene	µg/kg	2.838	95UCL	6.7E+04	2.2E+02	4E-05	1E-08
24533 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.24	Max	1.2E+03	3.5E+01	2E-04	7E-09
24533 MARBELLA AVE	Bromodichloromethane	µg/kg	0.29	Max	4.3E+05	4.9E+02	7E-07	6E-10
24533 MARBELLA AVE	Bromomethane	µg/kg	2.155	95UCL	8.8E+03	--	3E-04	--
24533 MARBELLA AVE	Cobalt	mg/kg	11.25	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24533 MARBELLA AVE	Ethylbenzene	µg/kg	0.408	95UCL	3.3E+06	4.8E+03	1E-07	9E-11
24533 MARBELLA AVE	Naphthalene	mg/kg	0.00457	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
24533 MARBELLA AVE	Pyrene	mg/kg	0.0204	95UCL	1.7E+03	--	1E-05	--
24533 MARBELLA AVE	Tetrachloroethene	µg/kg	1.203	95UCL	8.6E+04	5.5E+02	1E-05	2E-09
24533 MARBELLA AVE	Toluene	µg/kg	11.13	95UCL	4.8E+06	--	2E-06	--
24533 MARBELLA AVE	TPH as Diesel	mg/kg	145.3	95UCL	1.3E+03	--	1E-01	--
24533 MARBELLA AVE	TPH as Gasoline	mg/kg	0.209	95UCL	7.6E+02	--	3E-04	--
24533 MARBELLA AVE	TPH as Motor Oil	mg/kg	302.5	95UCL	3.3E+03	--	9E-02	--
24533 MARBELLA AVE	Xylenes, Total	µg/kg	7.488	95UCL	5.6E+05	--	1E-05	--
24533 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.31	Max	8.3E+04	--	4E-06	--
24533 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00807	95UCL	4.0E+03	1.6E+01	2E-06	5E-10
24533 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0335	95UCL	2.3E+02	--	2E-04	--
24533 PANAMA AVE	Benzene	µg/kg	0.354	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
24533 PANAMA AVE	Bromomethane	µg/kg	5	Max	8.8E+03	--	6E-04	--
24533 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.259	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24533 PANAMA AVE	Ethylbenzene	µg/kg	0.2	Max	3.3E+06	4.8E+03	6E-08	4E-11
24533 PANAMA AVE	Naphthalene	mg/kg	0.00793	95UCL	1.5E+02	4.0E+00	5E-05	2E-09
24533 PANAMA AVE	Pyrene	mg/kg	0.463	95UCL	1.7E+03	--	3E-04	--
24533 PANAMA AVE	Toluene	µg/kg	0.21	95UCL	4.8E+06	--	4E-08	--
24533 PANAMA AVE	TPH as Diesel	mg/kg	798.7	95UCL	1.3E+03	--	6E-01	--
24533 PANAMA AVE	TPH as Gasoline	mg/kg	7.702	95UCL	7.6E+02	--	1E-02	--
24533 PANAMA AVE	TPH as Motor Oil	mg/kg	1388	95UCL	3.3E+03	--	4E-01	--
24533 PANAMA AVE	Xylenes, Total	µg/kg	0.4	Max	5.6E+05	--	7E-07	--
24533 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.368	95UCL	8.3E+04	--	5E-06	--
24533 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0073	Max	4.0E+03	1.6E+01	2E-06	5E-10

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24533 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00251	95UCL	2.3E+02	--	1E-05	--
24533 RAVENNA AVE	Benzene	µg/kg	0.21	Max	6.7E+04	2.2E+02	3E-06	1E-09
24533 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.26	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24533 RAVENNA AVE	Naphthalene	mg/kg	0.0038	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
24533 RAVENNA AVE	Pyrene	mg/kg	0.00437	95UCL	1.7E+03	--	3E-06	--
24533 RAVENNA AVE	Toluene	µg/kg	0.228	95UCL	4.8E+06	--	5E-08	--
24533 RAVENNA AVE	TPH as Diesel	mg/kg	23	Max	1.3E+03	--	2E-02	--
24533 RAVENNA AVE	TPH as Gasoline	mg/kg	0.16	Max	7.6E+02	--	2E-04	--
24533 RAVENNA AVE	TPH as Motor Oil	mg/kg	18.16	95UCL	3.3E+03	--	6E-03	--
24533 RAVENNA AVE	Xylenes, Total	µg/kg	0.27	Max	5.6E+05	--	5E-07	--
24602 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.00865	95UCL	4.0E+03	1.6E+01	2E-06	6E-10
24602 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0233	95UCL	2.3E+02	--	1E-04	--
24602 MARBELLA AVE	Benzene	µg/kg	0.193	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24602 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.18	Max	1.2E+03	3.5E+01	2E-04	5E-09
24602 MARBELLA AVE	Bromomethane	µg/kg	0.94	Max	8.8E+03	--	1E-04	--
24602 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.8	Max	2.3E+02	1.3E+00	3E-03	6E-07
24602 MARBELLA AVE	Cobalt	mg/kg	10.79	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24602 MARBELLA AVE	Naphthalene	mg/kg	0.0373	95UCL	1.5E+02	4.0E+00	3E-04	9E-09
24602 MARBELLA AVE	Pyrene	mg/kg	0.0772	95UCL	1.7E+03	--	5E-05	--
24602 MARBELLA AVE	Tetrachloroethene	µg/kg	2.6	Max	8.6E+04	5.5E+02	3E-05	5E-09
24602 MARBELLA AVE	Toluene	µg/kg	0.291	95UCL	4.8E+06	--	6E-08	--
24602 MARBELLA AVE	TPH as Diesel	mg/kg	148.6	95UCL	1.3E+03	--	1E-01	--
24602 MARBELLA AVE	TPH as Gasoline	mg/kg	0.087	95UCL	7.6E+02	--	1E-04	--
24602 MARBELLA AVE	TPH as Motor Oil	mg/kg	352.6	95UCL	3.3E+03	--	1E-01	--
24602 MARBELLA AVE	Vanadium	mg/kg	38.81	95UCL	3.9E+02	--	1E-01	--
24602 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.00162	95UCL	4.0E+03	1.6E+01	4E-07	1E-10
24602 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.00368	95UCL	2.3E+02	--	2E-05	--
24602 NEPTUNE AVE	Benzene	µg/kg	0.257	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24602 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.256	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24602 NEPTUNE AVE	Naphthalene	mg/kg	0.00246	95UCL	1.5E+02	4.0E+00	2E-05	6E-10
24602 NEPTUNE AVE	Pyrene	mg/kg	0.0106	95UCL	1.7E+03	--	6E-06	--
24602 NEPTUNE AVE	Toluene	µg/kg	0.264	95UCL	4.8E+06	--	6E-08	--
24602 NEPTUNE AVE	TPH as Diesel	mg/kg	120	Max	1.3E+03	--	9E-02	--
24602 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.119	95UCL	7.6E+02	--	2E-04	--
24602 NEPTUNE AVE	TPH as Motor Oil	mg/kg	500	Max	3.3E+03	--	2E-01	--
24602 NEPTUNE AVE	Xylenes, Total	µg/kg	0.35	Max	5.6E+05	--	6E-07	--
24602 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.373	95UCL	8.3E+04	--	5E-06	--
24602 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00715	95UCL	4.0E+03	1.6E+01	2E-06	5E-10
24602 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0594	95UCL	2.3E+02	--	3E-04	--
24602 PANAMA AVE	Benzene	µg/kg	0.34	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
24602 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.3E+02	1.3E+00	2E-03	3E-07
24602 PANAMA AVE	Ethylbenzene	µg/kg	0.3	Max	3.3E+06	4.8E+03	9E-08	6E-11
24602 PANAMA AVE	Naphthalene	mg/kg	0.0134	95UCL	1.5E+02	4.0E+00	9E-05	3E-09
24602 PANAMA AVE	Pyrene	mg/kg	0.249	95UCL	1.7E+03	--	2E-04	--
24602 PANAMA AVE	Toluene	µg/kg	2.927	95UCL	4.8E+06	--	6E-07	--
24602 PANAMA AVE	TPH as Diesel	mg/kg	508.1	95UCL	1.3E+03	--	4E-01	--
24602 PANAMA AVE	TPH as Gasoline	mg/kg	0.278	95UCL	7.6E+02	--	4E-04	--
24602 PANAMA AVE	TPH as Motor Oil	mg/kg	1311	95UCL	3.3E+03	--	4E-01	--
24602 PANAMA AVE	Xylenes, Total	µg/kg	0.24	Max	5.6E+05	--	4E-07	--
24602 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.36	Max	8.3E+04	--	4E-06	--
24602 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0101	95UCL	4.0E+03	1.6E+01	3E-06	7E-10
24602 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0174	95UCL	2.3E+02	--	8E-05	--
24602 RAVENNA AVE	Benzene	µg/kg	0.218	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24602 RAVENNA AVE	Bromomethane	µg/kg	4.057	95UCL	8.8E+03	--	5E-04	--
24602 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	2.3E+02	1.3E+00	2E-03	3E-07
24602 RAVENNA AVE	Naphthalene	mg/kg	0.00726	95UCL	1.5E+02	4.0E+00	5E-05	2E-09
24602 RAVENNA AVE	Pyrene	mg/kg	0.0705	95UCL	1.7E+03	--	4E-05	--
24602 RAVENNA AVE	Toluene	µg/kg	0.874	95UCL	4.8E+06	--	2E-07	--
24602 RAVENNA AVE	TPH as Diesel	mg/kg	126.7	95UCL	1.3E+03	--	1E-01	--
24602 RAVENNA AVE	TPH as Gasoline	mg/kg	0.22	Max	7.6E+02	--	3E-04	--
24602 RAVENNA AVE	TPH as Motor Oil	mg/kg	396.3	95UCL	3.3E+03	--	1E-01	--
24603 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	6.801	95UCL	8.3E+04	--	8E-05	--
24603 MARBELLA AVE	1-Methylnaphthalene	mg/kg	4.163	95UCL	4.0E+03	1.6E+01	1E-03	3E-07

Appendix E
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Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24603 MARBELLA AVE	2-Methylnaphthalene	mg/kg	4.878	95UCL	2.3E+02	--	2E-02	--
24603 MARBELLA AVE	Benzene	µg/kg	0.446	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
24603 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.63	Max	1.2E+03	3.5E+01	5E-04	2E-08
24603 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.233	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24603 MARBELLA AVE	Cobalt	mg/kg	12.18	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24603 MARBELLA AVE	Naphthalene	mg/kg	1.062	95UCL	1.5E+02	4.0E+00	7E-03	3E-07
24603 MARBELLA AVE	Pyrene	mg/kg	1.756	95UCL	1.7E+03	--	1E-03	--
24603 MARBELLA AVE	Tetrachloroethene	µg/kg	0.954	95UCL	8.6E+04	5.5E+02	1E-05	2E-09
24603 MARBELLA AVE	Toluene	µg/kg	0.311	95UCL	4.8E+06	--	7E-08	--
24603 MARBELLA AVE	TPH as Diesel	mg/kg	3623	95UCL	1.3E+03	--	3E+00	--
24603 MARBELLA AVE	TPH as Gasoline	mg/kg	17.24	95UCL	7.6E+02	--	2E-02	--
24603 MARBELLA AVE	TPH as Motor Oil	mg/kg	5693	95UCL	3.3E+03	--	2E+00	--
24603 MARBELLA AVE	Trichloroethene	µg/kg	2.4	Max	5.8E+03	1.2E+03	4E-04	2E-09
24603 MARBELLA AVE	Vanadium	mg/kg	42.72	95UCL	3.9E+02	--	1E-01	--
24603 NEPTUNE AVE	1,1,2,2-Tetrachloroethane	µg/kg	1.2	Max	6.2E+05	4.7E+02	2E-06	3E-09
24603 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	5425	95UCL	8.3E+04	--	7E-02	--
24603 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1258	95UCL	8.5E+04	--	2E-02	--
24603 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.398	95UCL	4.0E+03	1.6E+01	6E-04	2E-07
24603 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.331	95UCL	2.3E+02	--	2E-02	--
24603 NEPTUNE AVE	Benzene	µg/kg	586	95UCL	6.7E+04	2.2E+02	9E-03	3E-06
24603 NEPTUNE AVE	Bromomethane	µg/kg	2.1	Max	8.8E+03	--	2E-04	--
24603 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.3E+02	1.3E+00	1E-03	3E-07
24603 NEPTUNE AVE	Ethylbenzene	µg/kg	8300	Max	3.3E+06	4.8E+03	3E-03	2E-06
24603 NEPTUNE AVE	Naphthalene	mg/kg	1.97	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24603 NEPTUNE AVE	Pyrene	mg/kg	0.102	95UCL	1.7E+03	--	6E-05	--
24603 NEPTUNE AVE	Toluene	µg/kg	688.3	95UCL	4.8E+06	--	1E-04	--
24603 NEPTUNE AVE	TPH as Diesel	mg/kg	1747	95UCL	1.3E+03	--	1E+00	--
24603 NEPTUNE AVE	TPH as Gasoline	mg/kg	373	95UCL	7.6E+02	--	5E-01	--
24603 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1091	95UCL	3.3E+03	--	3E-01	--
24603 NEPTUNE AVE	Xylenes, Total	µg/kg	11896	95UCL	5.6E+05	--	2E-02	--
24603 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.68	Max	8.3E+04	--	8E-06	--
24603 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.147	95UCL	4.0E+03	1.6E+01	4E-05	9E-09
24603 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.134	95UCL	2.3E+02	--	6E-04	--
24603 PANAMA AVE	Benzene	µg/kg	0.72	Max	6.7E+04	2.2E+02	1E-05	3E-09
24603 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.387	95UCL	2.3E+02	1.3E+00	2E-03	3E-07
24603 PANAMA AVE	Naphthalene	mg/kg	0.0289	95UCL	1.5E+02	4.0E+00	2E-04	7E-09
24603 PANAMA AVE	Pyrene	mg/kg	1.33	95UCL	1.7E+03	--	8E-04	--
24603 PANAMA AVE	Toluene	µg/kg	0.82	Max	4.8E+06	--	2E-07	--
24603 PANAMA AVE	TPH as Diesel	mg/kg	1115	95UCL	1.3E+03	--	9E-01	--
24603 PANAMA AVE	TPH as Gasoline	mg/kg	0.68	Max	7.6E+02	--	9E-04	--
24603 PANAMA AVE	TPH as Motor Oil	mg/kg	1514	95UCL	3.3E+03	--	5E-01	--
24603 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.194	95UCL	8.3E+04	--	2E-06	--
24603 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.091	Max	8.5E+04	--	1E-06	--
24603 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0732	95UCL	4.0E+03	1.6E+01	2E-05	5E-09
24603 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.29	95UCL	2.3E+02	--	1E-03	--
24603 RAVENNA AVE	Benzene	µg/kg	0.185	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24603 RAVENNA AVE	Bromomethane	µg/kg	2.2	Max	8.8E+03	--	3E-04	--
24603 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.26	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24603 RAVENNA AVE	Ethylbenzene	µg/kg	0.37	Max	3.3E+06	4.8E+03	1E-07	8E-11
24603 RAVENNA AVE	Methylene Chloride	µg/kg	360	Max	3.6E+05	5.3E+03	1E-03	7E-08
24603 RAVENNA AVE	Naphthalene	mg/kg	0.144	95UCL	1.5E+02	4.0E+00	1E-03	4E-08
24603 RAVENNA AVE	Pyrene	mg/kg	0.308	95UCL	1.7E+03	--	2E-04	--
24603 RAVENNA AVE	Thallium	mg/kg	3.107	95UCL	7.8E-01	--	4E+00	--
24603 RAVENNA AVE	Toluene	µg/kg	7.392	95UCL	4.8E+06	--	2E-06	--
24603 RAVENNA AVE	TPH as Diesel	mg/kg	1291	95UCL	1.3E+03	--	1E+00	--
24603 RAVENNA AVE	TPH as Gasoline	mg/kg	0.102	95UCL	7.6E+02	--	1E-04	--
24603 RAVENNA AVE	TPH as Motor Oil	mg/kg	3217	95UCL	3.3E+03	--	1E+00	--
24603 RAVENNA AVE	Xylenes, Total	µg/kg	0.423	95UCL	5.6E+05	--	8E-07	--
24606 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	936.3	95UCL	8.3E+04	--	1E-02	--
24606 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	2600	Max	8.5E+04	--	3E-02	--
24606 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.52	Max	3.6E+06	2.8E+03	1E-07	2E-10
24606 MARBELLA AVE	1-Methylnaphthalene	mg/kg	10.97	95UCL	4.0E+03	1.6E+01	3E-03	7E-07
24606 MARBELLA AVE	2-Methylnaphthalene	mg/kg	16.09	95UCL	2.3E+02	--	7E-02	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24606 MARBELLA AVE	Benzene	µg/kg	644.1	95UCL	6.7E+04	2.2E+02	1E-02	3E-06
24606 MARBELLA AVE	Bromodichloromethane	µg/kg	0.13	Max	4.3E+05	4.9E+02	3E-07	3E-10
24606 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.8	Max	2.3E+02	1.3E+00	3E-03	6E-07
24606 MARBELLA AVE	Cobalt	mg/kg	10.49	95UCL	2.3E+01	3.1E+04	5E-01	3E-10
24606 MARBELLA AVE	Ethylbenzene	µg/kg	1243	95UCL	3.3E+06	4.8E+03	4E-04	3E-07
24606 MARBELLA AVE	Naphthalene	mg/kg	8.625	95UCL	1.5E+02	4.0E+00	6E-02	2E-06
24606 MARBELLA AVE	Pyrene	mg/kg	1.287	95UCL	1.7E+03	--	8E-04	--
24606 MARBELLA AVE	Toluene	µg/kg	113.4	95UCL	4.8E+06	--	2E-05	--
24606 MARBELLA AVE	TPH as Diesel	mg/kg	5777	95UCL	1.3E+03	--	4E+00	--
24606 MARBELLA AVE	TPH as Gasoline	mg/kg	461	95UCL	7.6E+02	--	6E-01	--
24606 MARBELLA AVE	TPH as Motor Oil	mg/kg	6149	95UCL	3.3E+03	--	2E+00	--
24606 MARBELLA AVE	Xylenes, Total	µg/kg	1410	95UCL	5.6E+05	--	3E-03	--
24607 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0058	95UCL	4.0E+03	1.6E+01	1E-06	4E-10
24607 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00776	95UCL	2.3E+02	--	3E-05	--
24607 MARBELLA AVE	Benzene	µg/kg	0.381	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24607 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1	Max	1.2E+03	3.5E+01	8E-04	3E-08
24607 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.24	Max	2.3E+02	1.3E+00	1E-03	2E-07
24607 MARBELLA AVE	Cobalt	mg/kg	12.33	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24607 MARBELLA AVE	Naphthalene	mg/kg	0.00523	95UCL	1.5E+02	4.0E+00	4E-05	1E-09
24607 MARBELLA AVE	Pyrene	mg/kg	0.273	95UCL	1.7E+03	--	2E-04	--
24607 MARBELLA AVE	Tetrachloroethene	µg/kg	0.64	Max	8.6E+04	5.5E+02	7E-06	1E-09
24607 MARBELLA AVE	Toluene	µg/kg	0.33	95UCL	4.8E+06	--	7E-08	--
24607 MARBELLA AVE	TPH as Diesel	mg/kg	114.7	95UCL	1.3E+03	--	9E-02	--
24607 MARBELLA AVE	TPH as Gasoline	mg/kg	0.084	Max	7.6E+02	--	1E-04	--
24607 MARBELLA AVE	TPH as Motor Oil	mg/kg	237	95UCL	3.3E+03	--	7E-02	--
24607 MARBELLA AVE	Trichloroethene	µg/kg	0.43	Max	5.8E+03	1.2E+03	8E-05	4E-10
24608 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	635.3	95UCL	8.3E+04	--	8E-03	--
24608 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	310	Max	8.5E+04	--	4E-03	--
24608 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.591	95UCL	4.0E+03	1.6E+01	7E-04	2E-07
24608 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	0.67	Max	1.2E+02	1.6E+00	6E-03	4E-07
24608 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.055	95UCL	2.3E+02	--	2E-02	--
24608 NEPTUNE AVE	Benzene	µg/kg	0.382	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24608 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.648	95UCL	1.2E+03	3.5E+01	5E-04	2E-08
24608 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.84	Max	2.3E+02	1.3E+00	4E-03	7E-07
24608 NEPTUNE AVE	Ethylbenzene	µg/kg	210	Max	3.3E+06	4.8E+03	6E-05	4E-08
24608 NEPTUNE AVE	Naphthalene	mg/kg	2.513	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24608 NEPTUNE AVE	Pyrene	mg/kg	0.0592	95UCL	1.7E+03	--	4E-05	--
24608 NEPTUNE AVE	Toluene	µg/kg	0.381	95UCL	4.8E+06	--	8E-08	--
24608 NEPTUNE AVE	TPH as Diesel	mg/kg	4500	95UCL	1.3E+03	--	4E+00	--
24608 NEPTUNE AVE	TPH as Gasoline	mg/kg	228.8	95UCL	7.6E+02	--	3E-01	--
24608 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4345	95UCL	3.3E+03	--	1E+00	--
24608 NEPTUNE AVE	Xylenes, Total	µg/kg	74.2	95UCL	5.6E+05	--	1E-04	--
24608 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	33.39	95UCL	8.3E+04	--	4E-04	--
24608 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	83	Max	8.5E+04	--	1E-03	--
24608 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.569	95UCL	4.0E+03	1.6E+01	1E-04	4E-08
24608 PANAMA AVE	2,4-Dinitrotoluene	mg/kg	1.6	Max	1.2E+02	1.6E+00	1E-02	1E-06
24608 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.881	95UCL	2.3E+02	--	4E-03	--
24608 PANAMA AVE	Benzene	µg/kg	0.491	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
24608 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.39	Max	2.3E+02	1.3E+00	2E-03	3E-07
24608 PANAMA AVE	Ethylbenzene	µg/kg	49	Max	3.3E+06	4.8E+03	2E-05	1E-08
24608 PANAMA AVE	Naphthalene	mg/kg	0.221	95UCL	1.5E+02	4.0E+00	2E-03	6E-08
24608 PANAMA AVE	Pyrene	mg/kg	3.873	95UCL	1.7E+03	--	2E-03	--
24608 PANAMA AVE	Thallium	mg/kg	2.226	95UCL	7.8E-01	--	3E+00	--
24608 PANAMA AVE	Toluene	µg/kg	20.35	95UCL	4.8E+06	--	4E-06	--
24608 PANAMA AVE	TPH as Diesel	mg/kg	12723	95UCL	1.3E+03	--	1E+01	--
24608 PANAMA AVE	TPH as Gasoline	mg/kg	0.376	95UCL	7.6E+02	--	5E-04	--
24608 PANAMA AVE	TPH as Motor Oil	mg/kg	22981	95UCL	3.3E+03	--	7E+00	--
24608 PANAMA AVE	Xylenes, Total	µg/kg	87	Max	5.6E+05	--	2E-04	--
24608 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	968.6	95UCL	8.3E+04	--	1E-02	--
24608 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	224.9	95UCL	8.5E+04	--	3E-03	--
24608 RAVENNA AVE	1-Methylnaphthalene	mg/kg	6.08	95UCL	4.0E+03	1.6E+01	2E-03	4E-07
24608 RAVENNA AVE	2-Methylnaphthalene	mg/kg	9.501	95UCL	2.3E+02	--	4E-02	--
24608 RAVENNA AVE	Benzene	µg/kg	47.57	95UCL	6.7E+04	2.2E+02	7E-04	2E-07

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24608 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.27	Max	1.2E+03	3.5E+01	2E-04	8E-09
24608 RAVENNA AVE	Bromomethane	µg/kg	2.7	Max	8.8E+03	--	3E-04	--
24608 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.39	Max	2.3E+02	1.3E+00	2E-03	3E-07
24608 RAVENNA AVE	Ethylbenzene	µg/kg	182.9	95UCL	3.3E+06	4.8E+03	6E-05	4E-08
24608 RAVENNA AVE	Methylene Chloride	µg/kg	2.9	Max	3.6E+05	5.3E+03	8E-06	6E-10
24608 RAVENNA AVE	Naphthalene	mg/kg	2.668	95UCL	1.5E+02	4.0E+00	2E-02	7E-07
24608 RAVENNA AVE	Pyrene	mg/kg	1.357	95UCL	1.7E+03	--	8E-04	--
24608 RAVENNA AVE	Toluene	µg/kg	8.225	95UCL	4.8E+06	--	2E-06	--
24608 RAVENNA AVE	TPH as Diesel	mg/kg	3278	95UCL	1.3E+03	--	3E+00	--
24608 RAVENNA AVE	TPH as Gasoline	mg/kg	185.7	95UCL	7.6E+02	--	2E-01	--
24608 RAVENNA AVE	TPH as Motor Oil	mg/kg	3464	95UCL	3.3E+03	--	1E+00	--
24608 RAVENNA AVE	Xylenes, Total	µg/kg	434.4	95UCL	5.6E+05	--	8E-04	--
24609 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	4928	95UCL	8.3E+04	--	6E-02	--
24609 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	2525	95UCL	8.5E+04	--	3E-02	--
24609 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	8.463	95UCL	4.0E+03	1.6E+01	2E-03	5E-07
24609 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	20.7	95UCL	2.3E+02	--	9E-02	--
24609 NEPTUNE AVE	Benzene	µg/kg	1100	95UCL	6.7E+04	2.2E+02	2E-02	5E-06
24609 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	3.5	Max	1.2E+03	3.5E+01	3E-03	1E-07
24609 NEPTUNE AVE	Bromomethane	µg/kg	2.7	Max	8.8E+03	--	3E-04	--
24609 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.3E+02	1.3E+00	1E-03	3E-07
24609 NEPTUNE AVE	Ethylbenzene	µg/kg	2304	95UCL	3.3E+06	4.8E+03	7E-04	5E-07
24609 NEPTUNE AVE	Naphthalene	mg/kg	7.915	95UCL	1.5E+02	4.0E+00	5E-02	2E-06
24609 NEPTUNE AVE	Pyrene	mg/kg	1.734	95UCL	1.7E+03	--	1E-03	--
24609 NEPTUNE AVE	Toluene	µg/kg	894.6	95UCL	4.8E+06	--	2E-04	--
24609 NEPTUNE AVE	TPH as Diesel	mg/kg	9174	95UCL	1.3E+03	--	7E+00	--
24609 NEPTUNE AVE	TPH as Gasoline	mg/kg	871.5	95UCL	7.6E+02	--	1E+00	--
24609 NEPTUNE AVE	TPH as Motor Oil	mg/kg	8676	95UCL	3.3E+03	--	3E+00	--
24609 NEPTUNE AVE	Xylenes, Total	µg/kg	8656	95UCL	5.6E+05	--	2E-02	--
24609 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2.579	95UCL	8.3E+04	--	3E-05	--
24609 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.197	95UCL	8.5E+04	--	2E-06	--
24609 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.452	95UCL	4.0E+03	1.6E+01	1E-04	3E-08
24609 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.518	95UCL	2.3E+02	--	2E-03	--
24609 PANAMA AVE	Benzene	µg/kg	0.502	95UCL	6.7E+04	2.2E+02	8E-06	2E-09
24609 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.3E+02	1.3E+00	1E-03	3E-07
24609 PANAMA AVE	Ethylbenzene	µg/kg	19.66	95UCL	3.3E+06	4.8E+03	6E-06	4E-09
24609 PANAMA AVE	Naphthalene	mg/kg	0.158	95UCL	1.5E+02	4.0E+00	1E-03	4E-08
24609 PANAMA AVE	Pyrene	mg/kg	1.771	95UCL	1.7E+03	--	1E-03	--
24609 PANAMA AVE	Toluene	µg/kg	0.343	95UCL	4.8E+06	--	7E-08	--
24609 PANAMA AVE	TPH as Diesel	mg/kg	2167	95UCL	1.3E+03	--	2E+00	--
24609 PANAMA AVE	TPH as Gasoline	mg/kg	58.52	95UCL	7.6E+02	--	8E-02	--
24609 PANAMA AVE	TPH as Motor Oil	mg/kg	3447	95UCL	3.3E+03	--	1E+00	--
24609 PANAMA AVE	Xylenes, Total	µg/kg	0.93	95UCL	5.6E+05	--	2E-06	--
24609 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.53	Max	8.3E+04	--	6E-06	--
24609 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.084	Max	8.5E+04	--	1E-06	--
24609 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.00261	95UCL	4.0E+03	1.6E+01	7E-07	2E-10
24609 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00549	95UCL	2.3E+02	--	2E-05	--
24609 RAVENNA AVE	Benzene	µg/kg	0.236	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24609 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	1.2E+03	3.5E+01	1E-04	5E-09
24609 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	2.3E+02	1.3E+00	1E-03	2E-07
24609 RAVENNA AVE	Naphthalene	mg/kg	0.00231	95UCL	1.5E+02	4.0E+00	2E-05	6E-10
24609 RAVENNA AVE	Pyrene	mg/kg	0.0178	95UCL	1.7E+03	--	1E-05	--
24609 RAVENNA AVE	Toluene	µg/kg	0.279	95UCL	4.8E+06	--	6E-08	--
24609 RAVENNA AVE	TPH as Diesel	mg/kg	800	Max	1.3E+03	--	6E-01	--
24609 RAVENNA AVE	TPH as Gasoline	mg/kg	0.0712	95UCL	7.6E+02	--	9E-05	--
24609 RAVENNA AVE	TPH as Motor Oil	mg/kg	2000	Max	3.3E+03	--	6E-01	--
24609 RAVENNA AVE	Xylenes, Total	µg/kg	0.432	95UCL	5.6E+05	--	8E-07	--
24612 MARBELLA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.36	Max	6.2E+05	4.7E+02	6E-07	8E-10
24612 MARBELLA AVE	1,2,3-Trichloropropane	µg/kg	0.48	Max	2.4E+03	2.1E+01	2E-04	2E-08
24612 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2612	95UCL	8.3E+04	--	3E-02	--
24612 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	270.4	95UCL	8.5E+04	--	3E-03	--
24612 MARBELLA AVE	1-Methylnaphthalene	mg/kg	9.417	95UCL	4.0E+03	1.6E+01	2E-03	6E-07
24612 MARBELLA AVE	2-Methylnaphthalene	mg/kg	13.67	95UCL	2.3E+02	--	6E-02	--
24612 MARBELLA AVE	Benzene	µg/kg	854.5	95UCL	6.7E+04	2.2E+02	1E-02	4E-06

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24612 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.616	95UCL	1.2E+03	3.5E+01	5E-04	2E-08
24612 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
24612 MARBELLA AVE	Cobalt	mg/kg	11.33	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24612 MARBELLA AVE	Ethylbenzene	µg/kg	1038	95UCL	3.3E+06	4.8E+03	3E-04	2E-07
24612 MARBELLA AVE	Naphthalene	mg/kg	4.943	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24612 MARBELLA AVE	Pyrene	mg/kg	2.2	95UCL	1.7E+03	--	1E-03	--
24612 MARBELLA AVE	Toluene	µg/kg	6.714	95UCL	4.8E+06	--	1E-06	--
24612 MARBELLA AVE	TPH as Diesel	mg/kg	7180	95UCL	1.3E+03	--	6E+00	--
24612 MARBELLA AVE	TPH as Gasoline	mg/kg	278.2	95UCL	7.6E+02	--	4E-01	--
24612 MARBELLA AVE	TPH as Motor Oil	mg/kg	7069	95UCL	3.3E+03	--	2E+00	--
24612 MARBELLA AVE	Xylenes, Total	µg/kg	1041	95UCL	5.6E+05	--	2E-03	--
24612 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	598.8	95UCL	8.3E+04	--	7E-03	--
24612 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	870	Max	8.5E+04	--	1E-02	--
24612 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	6.429	95UCL	4.0E+03	1.6E+01	2E-03	4E-07
24612 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	13.41	95UCL	2.3E+02	--	6E-02	--
24612 NEPTUNE AVE	Benzene	µg/kg	336.4	95UCL	6.7E+04	2.2E+02	5E-03	2E-06
24612 NEPTUNE AVE	Benzo (a) Anthracene	mg/kg	0.22	95UCL	--	1.6E+00	--	1E-07
24612 NEPTUNE AVE	Benzo (a) Pyrene	mg/kg	0.111	95UCL	--	1.6E-01	--	7E-07
24612 NEPTUNE AVE	Benzo (b) Fluoranthene	mg/kg	0.039	95UCL	--	1.6E+00	--	3E-08
24612 NEPTUNE AVE	Benzo (k) Fluoranthene	mg/kg	0.0131	95UCL	--	1.6E+00	--	8E-09
24612 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.23	Max	2.3E+02	1.3E+00	1E-03	2E-07
24612 NEPTUNE AVE	Chrysene	mg/kg	0.597	95UCL	--	1.6E+01	--	4E-08
24612 NEPTUNE AVE	Dibenz (a,h) Anthracene	mg/kg	0.004	Max	--	1.1E-01	--	4E-08
24612 NEPTUNE AVE	Ethylbenzene	µg/kg	1312	95UCL	3.3E+06	4.8E+03	4E-04	3E-07
24612 NEPTUNE AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.0064	95UCL	--	1.6E+00	--	4E-09
24612 NEPTUNE AVE	Naphthalene	mg/kg	6.314	95UCL	1.5E+02	4.0E+00	4E-02	2E-06
24612 NEPTUNE AVE	Pyrene	mg/kg	1.556	95UCL	1.7E+03	--	9E-04	--
24612 NEPTUNE AVE	Toluene	µg/kg	0.24	Max	4.8E+06	--	5E-08	--
24612 NEPTUNE AVE	TPH as Diesel	mg/kg	5691	95UCL	1.3E+03	--	4E+00	--
24612 NEPTUNE AVE	TPH as Gasoline	mg/kg	413.3	95UCL	7.6E+02	--	5E-01	--
24612 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6411	95UCL	3.3E+03	--	2E+00	--
24612 NEPTUNE AVE	Xylenes, Total	µg/kg	337	95UCL	5.6E+05	--	6E-04	--
24612 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	190	Max	8.3E+04	--	2E-03	--
24612 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	71	Max	8.5E+04	--	8E-04	--
24612 PANAMA AVE	1-Methylnaphthalene	mg/kg	4.254	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24612 PANAMA AVE	2-Methylnaphthalene	mg/kg	5.874	95UCL	2.3E+02	--	3E-02	--
24612 PANAMA AVE	Benzene	µg/kg	5.848	95UCL	6.7E+04	2.2E+02	9E-05	3E-08
24612 PANAMA AVE	Ethylbenzene	µg/kg	350.9	95UCL	3.3E+06	4.8E+03	1E-04	7E-08
24612 PANAMA AVE	Naphthalene	mg/kg	1.729	95UCL	1.5E+02	4.0E+00	1E-02	4E-07
24612 PANAMA AVE	Pyrene	mg/kg	2.254	95UCL	1.7E+03	--	1E-03	--
24612 PANAMA AVE	Toluene	µg/kg	0.56	Max	4.8E+06	--	1E-07	--
24612 PANAMA AVE	TPH as Diesel	mg/kg	1015	95UCL	1.3E+03	--	8E-01	--
24612 PANAMA AVE	TPH as Gasoline	mg/kg	136	95UCL	7.6E+02	--	2E-01	--
24612 PANAMA AVE	TPH as Motor Oil	mg/kg	1473	95UCL	3.3E+03	--	5E-01	--
24612 PANAMA AVE	Xylenes, Total	µg/kg	130	Max	5.6E+05	--	2E-04	--
24612 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	61.98	95UCL	8.3E+04	--	8E-04	--
24612 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	13.59	95UCL	8.5E+04	--	2E-04	--
24612 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.13	Max	3.6E+06	2.8E+03	4E-08	5E-11
24612 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.544	95UCL	4.0E+03	1.6E+01	1E-04	4E-08
24612 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.1	95UCL	2.3E+02	--	5E-03	--
24612 RAVENNA AVE	Benzene	µg/kg	2.622	95UCL	6.7E+04	2.2E+02	4E-05	1E-08
24612 RAVENNA AVE	Bromomethane	µg/kg	2	Max	8.8E+03	--	2E-04	--
24612 RAVENNA AVE	Ethylbenzene	µg/kg	23.98	95UCL	3.3E+06	4.8E+03	7E-06	5E-09
24612 RAVENNA AVE	Methylene Chloride	µg/kg	6.2	Max	3.6E+05	5.3E+03	2E-05	1E-09
24612 RAVENNA AVE	Naphthalene	mg/kg	0.178	95UCL	1.5E+02	4.0E+00	1E-03	5E-08
24612 RAVENNA AVE	Pyrene	mg/kg	0.499	95UCL	1.7E+03	--	3E-04	--
24612 RAVENNA AVE	Toluene	µg/kg	0.407	95UCL	4.8E+06	--	9E-08	--
24612 RAVENNA AVE	TPH as Diesel	mg/kg	2961	95UCL	1.3E+03	--	2E+00	--
24612 RAVENNA AVE	TPH as Gasoline	mg/kg	18.09	95UCL	7.6E+02	--	2E-02	--
24612 RAVENNA AVE	TPH as Motor Oil	mg/kg	8114	95UCL	3.3E+03	--	3E+00	--
24612 RAVENNA AVE	Xylenes, Total	µg/kg	14.6	95UCL	5.6E+05	--	3E-05	--
24613 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2.1	Max	8.3E+04	--	3E-05	--
24613 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.51	Max	8.5E+04	--	6E-06	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24613 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.009	Max	4.0E+03	1.6E+01	2E-06	6E-10
24613 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00221	95UCL	2.3E+02	--	1E-05	--
24613 MARBELLA AVE	Benzene	µg/kg	1.065	95UCL	6.7E+04	2.2E+02	2E-05	5E-09
24613 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.48	Max	1.2E+03	3.5E+01	4E-04	1E-08
24613 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.3	Max	2.3E+02	1.3E+00	1E-03	2E-07
24613 MARBELLA AVE	Cobalt	mg/kg	13.42	95UCL	2.3E+01	3.1E+04	6E-01	4E-10
24613 MARBELLA AVE	Ethylbenzene	µg/kg	0.99	Max	3.3E+06	4.8E+03	3E-07	2E-10
24613 MARBELLA AVE	Naphthalene	mg/kg	0.00135	95UCL	1.5E+02	4.0E+00	9E-06	3E-10
24613 MARBELLA AVE	Pyrene	mg/kg	0.0512	95UCL	1.7E+03	--	3E-05	--
24613 MARBELLA AVE	Toluene	µg/kg	0.667	95UCL	4.8E+06	--	1E-07	--
24613 MARBELLA AVE	TPH as Diesel	mg/kg	34.56	95UCL	1.3E+03	--	3E-02	--
24613 MARBELLA AVE	TPH as Gasoline	mg/kg	2.039	95UCL	7.6E+02	--	3E-03	--
24613 MARBELLA AVE	TPH as Motor Oil	mg/kg	93.56	95UCL	3.3E+03	--	3E-02	--
24613 MARBELLA AVE	Vanadium	mg/kg	44.1	95UCL	3.9E+02	--	1E-01	--
24613 MARBELLA AVE	Xylenes, Total	µg/kg	6.3	Max	5.6E+05	--	1E-05	--
24613 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	621.8	95UCL	8.3E+04	--	8E-03	--
24613 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	67.31	95UCL	8.5E+04	--	8E-04	--
24613 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	6.319	95UCL	4.0E+03	1.6E+01	2E-03	4E-07
24613 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	11.72	95UCL	2.3E+02	--	5E-02	--
24613 NEPTUNE AVE	Benzene	µg/kg	238.8	95UCL	6.7E+04	2.2E+02	4E-03	1E-06
24613 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.75	Max	1.2E+03	3.5E+01	6E-04	2E-08
24613 NEPTUNE AVE	Bromomethane	µg/kg	320	Max	8.8E+03	--	4E-02	--
24613 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.4	Max	2.3E+02	1.3E+00	2E-03	3E-07
24613 NEPTUNE AVE	Ethylbenzene	µg/kg	905	95UCL	3.3E+06	4.8E+03	3E-04	2E-07
24613 NEPTUNE AVE	Naphthalene	mg/kg	4.581	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24613 NEPTUNE AVE	Pyrene	mg/kg	1.671	95UCL	1.7E+03	--	1E-03	--
24613 NEPTUNE AVE	Toluene	µg/kg	0.52	95UCL	4.8E+06	--	1E-07	--
24613 NEPTUNE AVE	TPH as Diesel	mg/kg	5112	95UCL	1.3E+03	--	4E+00	--
24613 NEPTUNE AVE	TPH as Gasoline	mg/kg	416.6	95UCL	7.6E+02	--	6E-01	--
24613 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5049	95UCL	3.3E+03	--	2E+00	--
24613 NEPTUNE AVE	Xylenes, Total	µg/kg	112.8	95UCL	5.6E+05	--	2E-04	--
24613 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	231.4	95UCL	8.3E+04	--	3E-03	--
24613 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	39.86	95UCL	8.5E+04	--	5E-04	--
24613 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.19	Max	3.6E+06	2.8E+03	5E-08	7E-11
24613 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.19	95UCL	4.0E+03	1.6E+01	3E-04	8E-08
24613 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.995	95UCL	2.3E+02	--	9E-03	--
24613 PANAMA AVE	Benzene	µg/kg	6.115	95UCL	6.7E+04	2.2E+02	9E-05	3E-08
24613 PANAMA AVE	Bromomethane	µg/kg	3.1	Max	8.8E+03	--	4E-04	--
24613 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.4	Max	2.3E+02	1.3E+00	2E-03	3E-07
24613 PANAMA AVE	Ethylbenzene	µg/kg	154	95UCL	3.3E+06	4.8E+03	5E-05	3E-08
24613 PANAMA AVE	Naphthalene	mg/kg	0.207	95UCL	1.5E+02	4.0E+00	1E-03	5E-08
24613 PANAMA AVE	Pyrene	mg/kg	10.44	95UCL	1.7E+03	--	6E-03	--
24613 PANAMA AVE	Toluene	µg/kg	15.32	95UCL	4.8E+06	--	3E-06	--
24613 PANAMA AVE	TPH as Diesel	mg/kg	7254	95UCL	1.3E+03	--	6E+00	--
24613 PANAMA AVE	TPH as Gasoline	mg/kg	34.75	95UCL	7.6E+02	--	5E-02	--
24613 PANAMA AVE	TPH as Motor Oil	mg/kg	12997	95UCL	3.3E+03	--	4E+00	--
24613 PANAMA AVE	Trichloroethene	µg/kg	0.15	Max	5.8E+03	1.2E+03	3E-05	1E-10
24613 PANAMA AVE	Vinyl Chloride	µg/kg	0.23	Max	7.4E+04	3.2E+01	3E-06	7E-09
24613 PANAMA AVE	Xylenes, Total	µg/kg	200.1	95UCL	5.6E+05	--	4E-04	--
24613 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	4702	95UCL	8.3E+04	--	6E-02	--
24613 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	930.4	95UCL	8.5E+04	--	1E-02	--
24613 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.851	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24613 RAVENNA AVE	2-Methylnaphthalene	mg/kg	5.174	95UCL	2.3E+02	--	2E-02	--
24613 RAVENNA AVE	Benzene	µg/kg	0.268	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24613 RAVENNA AVE	Bromomethane	µg/kg	1.5	Max	8.8E+03	--	2E-04	--
24613 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.16	95UCL	2.3E+02	1.3E+00	7E-04	1E-07
24613 RAVENNA AVE	Ethylbenzene	µg/kg	1800	Max	3.3E+06	4.8E+03	6E-04	4E-07
24613 RAVENNA AVE	Naphthalene	mg/kg	4.756	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24613 RAVENNA AVE	Pyrene	mg/kg	0.311	95UCL	1.7E+03	--	2E-04	--
24613 RAVENNA AVE	Toluene	µg/kg	0.355	95UCL	4.8E+06	--	7E-08	--
24613 RAVENNA AVE	TPH as Diesel	mg/kg	1756	95UCL	1.3E+03	--	1E+00	--
24613 RAVENNA AVE	TPH as Gasoline	mg/kg	325.7	95UCL	7.6E+02	--	4E-01	--
24613 RAVENNA AVE	TPH as Motor Oil	mg/kg	1794	95UCL	3.3E+03	--	5E-01	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24613 RAVENNA AVE	Xylenes, Total	µg/kg	2208	95UCL	5.6E+05	--	4E-03	--
24616 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	4509	95UCL	8.3E+04	--	6E-02	--
24616 MARBELLA AVE	1,2-Dichloropropane	µg/kg	0.31	Max	1.5E+04	8.3E+02	2E-05	4E-10
24616 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	654.8	95UCL	8.5E+04	--	8E-03	--
24616 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.186	95UCL	3.6E+06	2.8E+03	5E-08	7E-11
24616 MARBELLA AVE	1-Methylnaphthalene	mg/kg	23.66	95UCL	4.0E+03	1.6E+01	6E-03	2E-06
24616 MARBELLA AVE	2-Methylnaphthalene	mg/kg	30.86	95UCL	2.3E+02	--	1E-01	--
24616 MARBELLA AVE	Benzene	µg/kg	354.2	95UCL	6.7E+04	2.2E+02	5E-03	2E-06
24616 MARBELLA AVE	Benzo (a) Anthracene	mg/kg	1.137	95UCL	--	1.6E+00	--	7E-07
24616 MARBELLA AVE	Benzo (a) Pyrene	mg/kg	0.631	95UCL	--	1.6E-01	--	4E-06
24616 MARBELLA AVE	Benzo (b) Fluoranthene	mg/kg	0.092	95UCL	--	1.6E+00	--	6E-08
24616 MARBELLA AVE	Benzo (k) Fluoranthene	mg/kg	0.0242	95UCL	--	1.6E+00	--	2E-08
24616 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.24	Max	1.2E+03	3.5E+01	2E-04	7E-09
24616 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.88	Max	2.3E+02	1.3E+00	4E-03	7E-07
24616 MARBELLA AVE	Chrysene	mg/kg	2.297	95UCL	--	1.6E+01	--	2E-07
24616 MARBELLA AVE	Cobalt	mg/kg	9.404	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24616 MARBELLA AVE	Dibenz (a,h) Anthracene	mg/kg	0.0127	95UCL	--	1.1E-01	--	1E-07
24616 MARBELLA AVE	Ethylbenzene	µg/kg	753.1	95UCL	3.3E+06	4.8E+03	2E-04	2E-07
24616 MARBELLA AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.025	95UCL	--	1.6E+00	--	2E-08
24616 MARBELLA AVE	Naphthalene	mg/kg	9.498	95UCL	1.5E+02	4.0E+00	6E-02	2E-06
24616 MARBELLA AVE	Pyrene	mg/kg	5.572	95UCL	1.7E+03	--	3E-03	--
24616 MARBELLA AVE	Toluene	µg/kg	80.13	95UCL	4.8E+06	--	2E-05	--
24616 MARBELLA AVE	TPH as Diesel	mg/kg	11069	95UCL	1.3E+03	--	9E+00	--
24616 MARBELLA AVE	TPH as Gasoline	mg/kg	484.5	95UCL	7.6E+02	--	6E-01	--
24616 MARBELLA AVE	TPH as Motor Oil	mg/kg	11142	95UCL	3.3E+03	--	3E+00	--
24616 MARBELLA AVE	Trichloroethene	µg/kg	29	Max	5.8E+03	1.2E+03	5E-03	2E-08
24616 MARBELLA AVE	Vinyl Chloride	µg/kg	49	Max	7.4E+04	3.2E+01	7E-04	2E-06
24616 MARBELLA AVE	Xylenes, Total	µg/kg	3088	95UCL	5.6E+05	--	6E-03	--
24617 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0017	Max	4.0E+03	1.6E+01	4E-07	1E-10
24617 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0035	Max	2.3E+02	--	2E-05	--
24617 MARBELLA AVE	Benzene	µg/kg	0.333	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
24617 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.31	Max	2.3E+02	1.3E+00	1E-03	2E-07
24617 MARBELLA AVE	Cobalt	mg/kg	13.97	95UCL	2.3E+01	3.1E+04	6E-01	5E-10
24617 MARBELLA AVE	Naphthalene	mg/kg	0.0015	Max	1.5E+02	4.0E+00	1E-05	4E-10
24617 MARBELLA AVE	Pyrene	mg/kg	0.00424	95UCL	1.7E+03	--	3E-06	--
24617 MARBELLA AVE	Thallium	mg/kg	0.642	95UCL	7.8E-01	--	8E-01	--
24617 MARBELLA AVE	Toluene	µg/kg	0.385	95UCL	4.8E+06	--	8E-08	--
24617 MARBELLA AVE	TPH as Diesel	mg/kg	26.35	95UCL	1.3E+03	--	2E-02	--
24617 MARBELLA AVE	TPH as Gasoline	mg/kg	0.051	Max	7.6E+02	--	7E-05	--
24617 MARBELLA AVE	TPH as Motor Oil	mg/kg	67.61	95UCL	3.3E+03	--	2E-02	--
24617 MARBELLA AVE	Vanadium	mg/kg	49.59	95UCL	3.9E+02	--	1E-01	--
24617 MARBELLA AVE	Xylenes, Total	µg/kg	0.77	Max	5.6E+05	--	1E-06	--
24618 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	15.05	95UCL	8.3E+04	--	2E-04	--
24618 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	4.6	Max	8.5E+04	--	5E-05	--
24618 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	6.869	95UCL	4.0E+03	1.6E+01	2E-03	4E-07
24618 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	8.998	95UCL	2.3E+02	--	4E-02	--
24618 NEPTUNE AVE	Benzene	µg/kg	13.23	95UCL	6.7E+04	2.2E+02	2E-04	6E-08
24618 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	1.2E+03	3.5E+01	3E-04	1E-08
24618 NEPTUNE AVE	Bromomethane	µg/kg	1.9	Max	8.8E+03	--	2E-04	--
24618 NEPTUNE AVE	Ethylbenzene	µg/kg	41.32	95UCL	3.3E+06	4.8E+03	1E-05	9E-09
24618 NEPTUNE AVE	Naphthalene	mg/kg	2.401	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24618 NEPTUNE AVE	Pyrene	mg/kg	1.057	95UCL	1.7E+03	--	6E-04	--
24618 NEPTUNE AVE	Tetrachloroethene	µg/kg	0.2	Max	8.6E+04	5.5E+02	2E-06	4E-10
24618 NEPTUNE AVE	Toluene	µg/kg	0.48	95UCL	4.8E+06	--	1E-07	--
24618 NEPTUNE AVE	TPH as Diesel	mg/kg	3637	95UCL	1.3E+03	--	3E+00	--
24618 NEPTUNE AVE	TPH as Gasoline	mg/kg	22.11	95UCL	7.6E+02	--	3E-02	--
24618 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3586	95UCL	3.3E+03	--	1E+00	--
24618 NEPTUNE AVE	Xylenes, Total	µg/kg	8.644	95UCL	5.6E+05	--	2E-05	--
24618 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	161.1	95UCL	8.3E+04	--	2E-03	--
24618 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	68	Max	8.5E+04	--	8E-04	--
24618 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.191	95UCL	3.6E+06	2.8E+03	5E-08	7E-11
24618 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.102	95UCL	4.0E+03	1.6E+01	3E-04	7E-08
24618 PANAMA AVE	2-Methylnaphthalene	mg/kg	2.763	95UCL	2.3E+02	--	1E-02	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24618 PANAMA AVE	Benzene	µg/kg	0.414	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24618 PANAMA AVE	Bromomethane	µg/kg	1.8	Max	8.8E+03	--	2E-04	--
24618 PANAMA AVE	Ethylbenzene	µg/kg	99	Max	3.3E+06	4.8E+03	3E-05	2E-08
24618 PANAMA AVE	Naphthalene	mg/kg	0.611	95UCL	1.5E+02	4.0E+00	4E-03	2E-07
24618 PANAMA AVE	Pyrene	mg/kg	1.692	95UCL	1.7E+03	--	1E-03	--
24618 PANAMA AVE	Toluene	µg/kg	0.757	95UCL	4.8E+06	--	2E-07	--
24618 PANAMA AVE	TPH as Diesel	mg/kg	2520	95UCL	1.3E+03	--	2E+00	--
24618 PANAMA AVE	TPH as Gasoline	mg/kg	48.42	95UCL	7.6E+02	--	6E-02	--
24618 PANAMA AVE	TPH as Motor Oil	mg/kg	4007	95UCL	3.3E+03	--	1E+00	--
24618 PANAMA AVE	Trichloroethene	µg/kg	0.42	Max	5.8E+03	1.2E+03	7E-05	4E-10
24618 PANAMA AVE	Xylenes, Total	µg/kg	31.77	95UCL	5.6E+05	--	6E-05	--
24618 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	290	Max	8.3E+04	--	4E-03	--
24618 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	84	Max	8.5E+04	--	1E-03	--
24618 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.22	95UCL	4.0E+03	1.6E+01	6E-04	1E-07
24618 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.809	95UCL	2.3E+02	--	8E-03	--
24618 RAVENNA AVE	Benzene	µg/kg	0.268	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24618 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.3E+02	1.3E+00	2E-03	3E-07
24618 RAVENNA AVE	Naphthalene	mg/kg	0.399	95UCL	1.5E+02	4.0E+00	3E-03	1E-07
24618 RAVENNA AVE	Pyrene	mg/kg	0.385	95UCL	1.7E+03	--	2E-04	--
24618 RAVENNA AVE	Toluene	µg/kg	0.351	95UCL	4.8E+06	--	7E-08	--
24618 RAVENNA AVE	TPH as Diesel	mg/kg	960	95UCL	1.3E+03	--	7E-01	--
24618 RAVENNA AVE	TPH as Gasoline	mg/kg	15.25	95UCL	7.6E+02	--	2E-02	--
24618 RAVENNA AVE	TPH as Motor Oil	mg/kg	1418	95UCL	3.3E+03	--	4E-01	--
24618 RAVENNA AVE	Xylenes, Total	µg/kg	18	Max	5.6E+05	--	3E-05	--
24619 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	541.5	95UCL	8.3E+04	--	7E-03	--
24619 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	26.92	95UCL	8.5E+04	--	3E-04	--
24619 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.14	Max	3.6E+06	2.8E+03	4E-08	5E-11
24619 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.115	95UCL	4.0E+03	1.6E+01	5E-04	1E-07
24619 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.788	95UCL	2.3E+02	--	2E-02	--
24619 NEPTUNE AVE	Benzene	µg/kg	66.06	95UCL	6.7E+04	2.2E+02	1E-03	3E-07
24619 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.869	95UCL	1.2E+03	3.5E+01	7E-04	3E-08
24619 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.8	Max	2.3E+02	1.3E+00	3E-03	6E-07
24619 NEPTUNE AVE	Ethylbenzene	µg/kg	463.5	95UCL	3.3E+06	4.8E+03	1E-04	1E-07
24619 NEPTUNE AVE	Naphthalene	mg/kg	2.348	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24619 NEPTUNE AVE	Pyrene	mg/kg	0.711	95UCL	1.7E+03	--	4E-04	--
24619 NEPTUNE AVE	Toluene	µg/kg	12.54	95UCL	4.8E+06	--	3E-06	--
24619 NEPTUNE AVE	TPH as Diesel	mg/kg	4372	95UCL	1.3E+03	--	3E+00	--
24619 NEPTUNE AVE	TPH as Gasoline	mg/kg	186.5	95UCL	7.6E+02	--	3E-01	--
24619 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3954	95UCL	3.3E+03	--	1E+00	--
24619 NEPTUNE AVE	Xylenes, Total	µg/kg	168	95UCL	5.6E+05	--	3E-04	--
24619 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	991	95UCL	8.3E+04	--	1E-02	--
24619 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	174.1	95UCL	8.5E+04	--	2E-03	--
24619 PANAMA AVE	1-Methylnaphthalene	mg/kg	3.65	95UCL	4.0E+03	1.6E+01	9E-04	2E-07
24619 PANAMA AVE	2-Methylnaphthalene	mg/kg	5.477	95UCL	2.3E+02	--	2E-02	--
24619 PANAMA AVE	Benzene	µg/kg	74.71	95UCL	6.7E+04	2.2E+02	1E-03	3E-07
24619 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.65	Max	1.2E+03	3.5E+01	5E-04	2E-08
24619 PANAMA AVE	Ethylbenzene	µg/kg	234.7	95UCL	3.3E+06	4.8E+03	7E-05	5E-08
24619 PANAMA AVE	Naphthalene	mg/kg	2.311	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24619 PANAMA AVE	Pyrene	mg/kg	1.046	95UCL	1.7E+03	--	6E-04	--
24619 PANAMA AVE	Toluene	µg/kg	0.242	95UCL	4.8E+06	--	5E-08	--
24619 PANAMA AVE	TPH as Diesel	mg/kg	2494	95UCL	1.3E+03	--	2E+00	--
24619 PANAMA AVE	TPH as Gasoline	mg/kg	149.9	95UCL	7.6E+02	--	2E-01	--
24619 PANAMA AVE	TPH as Motor Oil	mg/kg	2864	95UCL	3.3E+03	--	9E-01	--
24619 PANAMA AVE	Xylenes, Total	µg/kg	288.8	95UCL	5.6E+05	--	5E-04	--
24619 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.304	95UCL	8.3E+04	--	4E-06	--
24619 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.24	Max	8.5E+04	--	3E-06	--
24619 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.00607	95UCL	4.0E+03	1.6E+01	2E-06	4E-10
24619 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0254	95UCL	2.3E+02	--	1E-04	--
24619 RAVENNA AVE	Benzene	µg/kg	0.35	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
24619 RAVENNA AVE	Bromomethane	µg/kg	1.7	Max	8.8E+03	--	2E-04	--
24619 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.4	Max	2.3E+02	1.3E+00	2E-03	3E-07
24619 RAVENNA AVE	Ethylbenzene	µg/kg	0.16	Max	3.3E+06	4.8E+03	5E-08	3E-11
24619 RAVENNA AVE	Naphthalene	mg/kg	0.0177	95UCL	1.5E+02	4.0E+00	1E-04	5E-09

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24619 RAVENNA AVE	Pyrene	mg/kg	0.126	95UCL	1.7E+03	--	7E-05	--
24619 RAVENNA AVE	Tetrachloroethene	µg/kg	0.97	Max	8.6E+04	5.5E+02	1E-05	2E-09
24619 RAVENNA AVE	Toluene	µg/kg	0.431	95UCL	4.8E+06	--	9E-08	--
24619 RAVENNA AVE	TPH as Diesel	mg/kg	132.1	95UCL	1.3E+03	--	1E-01	--
24619 RAVENNA AVE	TPH as Gasoline	mg/kg	0.32	95UCL	7.6E+02	--	4E-04	--
24619 RAVENNA AVE	TPH as Motor Oil	mg/kg	246.1	95UCL	3.3E+03	--	8E-02	--
24619 RAVENNA AVE	Xylenes, Total	µg/kg	0.799	95UCL	5.6E+05	--	1E-06	--
24622 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	3293	95UCL	8.3E+04	--	4E-02	--
24622 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	371.2	95UCL	8.5E+04	--	4E-03	--
24622 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.46	Max	3.6E+06	2.8E+03	1E-07	2E-10
24622 MARBELLA AVE	1-Methylnaphthalene	mg/kg	18.82	95UCL	4.0E+03	1.6E+01	5E-03	1E-06
24622 MARBELLA AVE	2-Methylnaphthalene	mg/kg	46.38	95UCL	2.3E+02	--	2E-01	--
24622 MARBELLA AVE	Benzene	µg/kg	246	95UCL	6.7E+04	2.2E+02	4E-03	1E-06
24622 MARBELLA AVE	Benzo (a) Anthracene	mg/kg	1.798	95UCL	--	1.6E+00	--	1E-06
24622 MARBELLA AVE	Benzo (a) Pyrene	mg/kg	0.907	95UCL	--	1.6E-01	--	6E-06
24622 MARBELLA AVE	Benzo (b) Fluoranthene	mg/kg	0.269	95UCL	--	1.6E+00	--	2E-07
24622 MARBELLA AVE	Benzo (k) Fluoranthene	mg/kg	0.0183	95UCL	--	1.6E+00	--	1E-08
24622 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.4	Max	1.2E+03	3.5E+01	3E-04	1E-08
24622 MARBELLA AVE	Bromomethane	µg/kg	1.8	Max	8.8E+03	--	2E-04	--
24622 MARBELLA AVE	Chrysene	mg/kg	2.799	95UCL	--	1.6E+01	--	2E-07
24622 MARBELLA AVE	Cobalt	mg/kg	10.37	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24622 MARBELLA AVE	Dibenz (a,h) Anthracene	mg/kg	0.072	Max	--	1.1E-01	--	7E-07
24622 MARBELLA AVE	Ethylbenzene	µg/kg	403.1	95UCL	3.3E+06	4.8E+03	1E-04	8E-08
24622 MARBELLA AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.0125	95UCL	--	1.6E+00	--	8E-09
24622 MARBELLA AVE	Naphthalene	mg/kg	8.427	95UCL	1.5E+02	4.0E+00	6E-02	2E-06
24622 MARBELLA AVE	Pyrene	mg/kg	6.695	95UCL	1.7E+03	--	4E-03	--
24622 MARBELLA AVE	Toluene	µg/kg	26.95	95UCL	4.8E+06	--	6E-06	--
24622 MARBELLA AVE	TPH as Diesel	mg/kg	7884	95UCL	1.3E+03	--	6E+00	--
24622 MARBELLA AVE	TPH as Gasoline	mg/kg	342.5	95UCL	7.6E+02	--	5E-01	--
24622 MARBELLA AVE	TPH as Motor Oil	mg/kg	8313	95UCL	3.3E+03	--	3E+00	--
24622 MARBELLA AVE	Vanadium	mg/kg	36.86	95UCL	3.9E+02	--	9E-02	--
24622 MARBELLA AVE	Xylenes, Total	µg/kg	1049	95UCL	5.6E+05	--	2E-03	--
24622 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	11.86	95UCL	8.3E+04	--	1E-04	--
24622 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.28	Max	8.5E+04	--	3E-06	--
24622 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	4.381	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24622 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	6.901	95UCL	2.3E+02	--	3E-02	--
24622 NEPTUNE AVE	Benzene	µg/kg	0.376	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24622 NEPTUNE AVE	Bromomethane	µg/kg	4.8	Max	8.8E+03	--	6E-04	--
24622 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.3	Max	2.3E+02	1.3E+00	1E-03	2E-07
24622 NEPTUNE AVE	Ethylbenzene	µg/kg	82	Max	3.3E+06	4.8E+03	3E-05	2E-08
24622 NEPTUNE AVE	Naphthalene	mg/kg	2.224	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24622 NEPTUNE AVE	Pyrene	mg/kg	1.251	95UCL	1.7E+03	--	7E-04	--
24622 NEPTUNE AVE	Toluene	µg/kg	0.19	95UCL	4.8E+06	--	4E-08	--
24622 NEPTUNE AVE	TPH as Diesel	mg/kg	3485	95UCL	1.3E+03	--	3E+00	--
24622 NEPTUNE AVE	TPH as Gasoline	mg/kg	19.51	95UCL	7.6E+02	--	3E-02	--
24622 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4435	95UCL	3.3E+03	--	1E+00	--
24622 NEPTUNE AVE	Vinyl Chloride	µg/kg	0.19	Max	7.4E+04	3.2E+01	3E-06	6E-09
24622 NEPTUNE AVE	Xylenes, Total	µg/kg	0.42	95UCL	5.6E+05	--	8E-07	--
24623 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	11000	Max	8.3E+04	--	1E-01	--
24623 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	280	Max	8.5E+04	--	3E-03	--
24623 MARBELLA AVE	1-Methylnaphthalene	mg/kg	5.021	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24623 MARBELLA AVE	2-Methylnaphthalene	mg/kg	8.304	95UCL	2.3E+02	--	4E-02	--
24623 MARBELLA AVE	Benzene	µg/kg	20.65	95UCL	6.7E+04	2.2E+02	3E-04	9E-08
24623 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.35	Max	2.3E+02	1.3E+00	2E-03	3E-07
24623 MARBELLA AVE	Cobalt	mg/kg	12.63	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24623 MARBELLA AVE	Ethylbenzene	µg/kg	4200	Max	3.3E+06	4.8E+03	1E-03	9E-07
24623 MARBELLA AVE	Naphthalene	mg/kg	3.394	95UCL	1.5E+02	4.0E+00	2E-02	9E-07
24623 MARBELLA AVE	Pyrene	mg/kg	0.0544	95UCL	1.7E+03	--	3E-05	--
24623 MARBELLA AVE	Toluene	µg/kg	0.34	Max	4.8E+06	--	7E-08	--
24623 MARBELLA AVE	TPH as Diesel	mg/kg	3952	95UCL	1.3E+03	--	3E+00	--
24623 MARBELLA AVE	TPH as Gasoline	mg/kg	2200	Max	7.6E+02	--	3E+00	--
24623 MARBELLA AVE	TPH as Motor Oil	mg/kg	3764	95UCL	3.3E+03	--	1E+00	--
24623 MARBELLA AVE	Vanadium	mg/kg	44.75	95UCL	3.9E+02	--	1E-01	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24623 MARBELLA AVE	Xylenes, Total	µg/kg	1200	Max	5.6E+05	--	2E-03	--
24623 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	341.5	95UCL	8.3E+04	--	4E-03	--
24623 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	310	Max	8.5E+04	--	4E-03	--
24623 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.16	Max	3.6E+06	2.8E+03	4E-08	6E-11
24623 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.615	95UCL	4.0E+03	1.6E+01	7E-04	2E-07
24623 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	6.772	95UCL	2.3E+02	--	3E-02	--
24623 NEPTUNE AVE	Benzene	µg/kg	11.73	95UCL	6.7E+04	2.2E+02	2E-04	5E-08
24623 NEPTUNE AVE	Benzo (a) Anthracene	mg/kg	0.161	95UCL	--	1.6E+00	--	1E-07
24623 NEPTUNE AVE	Benzo (a) Pyrene	mg/kg	0.0579	95UCL	--	1.6E-01	--	4E-07
24623 NEPTUNE AVE	Benzo (b) Fluoranthene	mg/kg	0.0287	95UCL	--	1.6E+00	--	2E-08
24623 NEPTUNE AVE	Benzo (k) Fluoranthene	mg/kg	0.059	Max	--	1.6E+00	--	4E-08
24623 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.36	Max	1.2E+03	3.5E+01	3E-04	1E-08
24623 NEPTUNE AVE	Bromodichloromethane	µg/kg	0.21	Max	4.3E+05	4.9E+02	5E-07	4E-10
24623 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.68	Max	2.3E+02	1.3E+00	3E-03	5E-07
24623 NEPTUNE AVE	Chrysene	mg/kg	0.268	95UCL	--	1.6E+01	--	2E-08
24623 NEPTUNE AVE	Dibenz (a,h) Anthracene	mg/kg	0.0166	95UCL	--	1.1E-01	--	2E-07
24623 NEPTUNE AVE	Ethylbenzene	µg/kg	302.6	95UCL	3.3E+06	4.8E+03	9E-05	6E-08
24623 NEPTUNE AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.019	95UCL	--	1.6E+00	--	1E-08
24623 NEPTUNE AVE	Naphthalene	mg/kg	2.245	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24623 NEPTUNE AVE	Pyrene	mg/kg	0.22	95UCL	1.7E+03	--	1E-04	--
24623 NEPTUNE AVE	Toluene	µg/kg	0.537	95UCL	4.8E+06	--	1E-07	--
24623 NEPTUNE AVE	TPH as Diesel	mg/kg	3145	95UCL	1.3E+03	--	2E+00	--
24623 NEPTUNE AVE	TPH as Gasoline	mg/kg	142.6	95UCL	7.6E+02	--	2E-01	--
24623 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3715	95UCL	3.3E+03	--	1E+00	--
24623 NEPTUNE AVE	Trichloroethene	µg/kg	23	Max	5.8E+03	1.2E+03	4E-03	2E-08
24623 NEPTUNE AVE	Xylenes, Total	µg/kg	160	Max	5.6E+05	--	3E-04	--
24627 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1955	95UCL	8.3E+04	--	2E-02	--
24627 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	3700	Max	8.5E+04	--	4E-02	--
24627 MARBELLA AVE	1-Methylnaphthalene	mg/kg	12.14	95UCL	4.0E+03	1.6E+01	3E-03	8E-07
24627 MARBELLA AVE	2-Methylnaphthalene	mg/kg	19.2	95UCL	2.3E+02	--	8E-02	--
24627 MARBELLA AVE	Benzene	µg/kg	3.462	95UCL	6.7E+04	2.2E+02	5E-05	2E-08
24627 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.4	Max	2.3E+02	1.3E+00	2E-03	3E-07
24627 MARBELLA AVE	Cobalt	mg/kg	12.69	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24627 MARBELLA AVE	Ethylbenzene	µg/kg	247.7	95UCL	3.3E+06	4.8E+03	8E-05	5E-08
24627 MARBELLA AVE	Naphthalene	mg/kg	6.933	95UCL	1.5E+02	4.0E+00	5E-02	2E-06
24627 MARBELLA AVE	Pyrene	mg/kg	0.806	95UCL	1.7E+03	--	5E-04	--
24627 MARBELLA AVE	Toluene	µg/kg	16.45	95UCL	4.8E+06	--	3E-06	--
24627 MARBELLA AVE	TPH as Diesel	mg/kg	6094	95UCL	1.3E+03	--	5E+00	--
24627 MARBELLA AVE	TPH as Gasoline	mg/kg	285.8	95UCL	7.6E+02	--	4E-01	--
24627 MARBELLA AVE	TPH as Motor Oil	mg/kg	4023	95UCL	3.3E+03	--	1E+00	--
24627 MARBELLA AVE	Trichloroethene	µg/kg	20	Max	5.8E+03	1.2E+03	4E-03	2E-08
24627 MARBELLA AVE	Vanadium	mg/kg	42.74	95UCL	3.9E+02	--	1E-01	--
24627 MARBELLA AVE	Xylenes, Total	µg/kg	845.4	95UCL	5.6E+05	--	2E-03	--
24628 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1080	95UCL	8.3E+04	--	1E-02	--
24628 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	2700	Max	8.5E+04	--	3E-02	--
24628 MARBELLA AVE	1-Methylnaphthalene	mg/kg	5.611	95UCL	4.0E+03	1.6E+01	1E-03	4E-07
24628 MARBELLA AVE	2-Methylnaphthalene	mg/kg	7.617	95UCL	2.3E+02	--	3E-02	--
24628 MARBELLA AVE	Benzene	µg/kg	364.3	95UCL	6.7E+04	2.2E+02	6E-03	2E-06
24628 MARBELLA AVE	Bromodichloromethane	µg/kg	0.45	Max	4.3E+05	4.9E+02	1E-06	9E-10
24628 MARBELLA AVE	Bromomethane	µg/kg	119.7	95UCL	8.8E+03	--	1E-02	--
24628 MARBELLA AVE	Chromium, Hexavalent	mg/kg	1.5	Max	2.3E+02	1.3E+00	6E-03	1E-06
24628 MARBELLA AVE	Cobalt	mg/kg	10.16	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24628 MARBELLA AVE	Ethylbenzene	µg/kg	7500	Max	3.3E+06	4.8E+03	2E-03	2E-06
24628 MARBELLA AVE	Methylene Chloride	µg/kg	2100	Max	3.6E+05	5.3E+03	6E-03	4E-07
24628 MARBELLA AVE	Naphthalene	mg/kg	2.9	95UCL	1.5E+02	4.0E+00	2E-02	7E-07
24628 MARBELLA AVE	Pyrene	mg/kg	0.783	95UCL	1.7E+03	--	5E-04	--
24628 MARBELLA AVE	Toluene	µg/kg	6.385	95UCL	4.8E+06	--	1E-06	--
24628 MARBELLA AVE	TPH as Diesel	mg/kg	4636	95UCL	1.3E+03	--	4E+00	--
24628 MARBELLA AVE	TPH as Gasoline	mg/kg	201.3	95UCL	7.6E+02	--	3E-01	--
24628 MARBELLA AVE	TPH as Motor Oil	mg/kg	8519	95UCL	3.3E+03	--	3E+00	--
24628 MARBELLA AVE	Vanadium	mg/kg	35.66	95UCL	3.9E+02	--	9E-02	--
24628 MARBELLA AVE	Xylenes, Total	µg/kg	3700	Max	5.6E+05	--	7E-03	--
24628 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.36	Max	8.3E+04	--	4E-06	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24628 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0653	95UCL	4.0E+03	1.6E+01	2E-05	4E-09
24628 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.135	95UCL	2.3E+02	--	6E-04	--
24628 NEPTUNE AVE	Benzene	µg/kg	0.181	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24628 NEPTUNE AVE	Ethylbenzene	µg/kg	0.2	Max	3.3E+06	4.8E+03	6E-08	4E-11
24628 NEPTUNE AVE	Naphthalene	mg/kg	0.0441	95UCL	1.5E+02	4.0E+00	3E-04	1E-08
24628 NEPTUNE AVE	Pyrene	mg/kg	0.0729	95UCL	1.7E+03	--	4E-05	--
24628 NEPTUNE AVE	Toluene	µg/kg	0.228	95UCL	4.8E+06	--	5E-08	--
24628 NEPTUNE AVE	TPH as Diesel	mg/kg	205.8	95UCL	1.3E+03	--	2E-01	--
24628 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.097	Max	7.6E+02	--	1E-04	--
24628 NEPTUNE AVE	TPH as Motor Oil	mg/kg	591.6	95UCL	3.3E+03	--	2E-01	--
24628 NEPTUNE AVE	Xylenes, Total	µg/kg	0.19	Max	5.6E+05	--	3E-07	--
24629 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	720.8	95UCL	8.3E+04	--	9E-03	--
24629 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	175.9	95UCL	8.5E+04	--	2E-03	--
24629 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	3.831	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24629 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	8.839	95UCL	2.3E+02	--	4E-02	--
24629 NEPTUNE AVE	Benzene	µg/kg	65.7	95UCL	6.7E+04	2.2E+02	1E-03	3E-07
24629 NEPTUNE AVE	Bromomethane	µg/kg	3.7	Max	8.8E+03	--	4E-04	--
24629 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.24	Max	2.3E+02	1.3E+00	1E-03	2E-07
24629 NEPTUNE AVE	Ethylbenzene	µg/kg	443.9	95UCL	3.3E+06	4.8E+03	1E-04	9E-08
24629 NEPTUNE AVE	Naphthalene	mg/kg	3.408	95UCL	1.5E+02	4.0E+00	2E-02	9E-07
24629 NEPTUNE AVE	Pyrene	mg/kg	0.331	95UCL	1.7E+03	--	2E-04	--
24629 NEPTUNE AVE	Toluene	µg/kg	5.013	95UCL	4.8E+06	--	1E-06	--
24629 NEPTUNE AVE	TPH as Diesel	mg/kg	5163	95UCL	1.3E+03	--	4E+00	--
24629 NEPTUNE AVE	TPH as Gasoline	mg/kg	241.4	95UCL	7.6E+02	--	3E-01	--
24629 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4877	95UCL	3.3E+03	--	2E+00	--
24629 NEPTUNE AVE	Trichloroethene	µg/kg	0.15	Max	5.8E+03	1.2E+03	3E-05	1E-10
24629 NEPTUNE AVE	Xylenes, Total	µg/kg	328	95UCL	5.6E+05	--	6E-04	--
24632 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.18	Max	8.3E+04	--	2E-06	--
24632 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.767	95UCL	4.0E+03	1.6E+01	7E-04	2E-07
24632 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	6.031	95UCL	2.3E+02	--	3E-02	--
24632 NEPTUNE AVE	Benzene	µg/kg	1.2	Max	6.7E+04	2.2E+02	2E-05	6E-09
24632 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.1	Max	2.3E+02	1.3E+00	4E-04	8E-08
24632 NEPTUNE AVE	Ethylbenzene	µg/kg	87	Max	3.3E+06	4.8E+03	3E-05	2E-08
24632 NEPTUNE AVE	Naphthalene	mg/kg	0.785	95UCL	1.5E+02	4.0E+00	5E-03	2E-07
24632 NEPTUNE AVE	Pyrene	mg/kg	1.008	95UCL	1.7E+03	--	6E-04	--
24632 NEPTUNE AVE	Toluene	µg/kg	0.57	Max	4.8E+06	--	1E-07	--
24632 NEPTUNE AVE	TPH as Diesel	mg/kg	2417	95UCL	1.3E+03	--	2E+00	--
24632 NEPTUNE AVE	TPH as Gasoline	mg/kg	22.87	95UCL	7.6E+02	--	3E-02	--
24632 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2407	95UCL	3.3E+03	--	7E-01	--
24632 NEPTUNE AVE	Xylenes, Total	µg/kg	46	Max	5.6E+05	--	8E-05	--
24633 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.017	Max	4.0E+03	1.6E+01	4E-06	1E-09
24633 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0442	95UCL	2.3E+02	--	2E-04	--
24633 MARBELLA AVE	Benzene	µg/kg	0.391	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24633 MARBELLA AVE	Cobalt	mg/kg	12.47	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24633 MARBELLA AVE	Naphthalene	mg/kg	0.282	95UCL	1.5E+02	4.0E+00	2E-03	7E-08
24633 MARBELLA AVE	Pyrene	mg/kg	1.061	95UCL	1.7E+03	--	6E-04	--
24633 MARBELLA AVE	Toluene	µg/kg	0.8	Max	4.8E+06	--	2E-07	--
24633 MARBELLA AVE	TPH as Diesel	mg/kg	2403	95UCL	1.3E+03	--	2E+00	--
24633 MARBELLA AVE	TPH as Gasoline	mg/kg	0.0709	95UCL	7.6E+02	--	9E-05	--
24633 MARBELLA AVE	TPH as Motor Oil	mg/kg	8836	95UCL	3.3E+03	--	3E+00	--
24633 MARBELLA AVE	Xylenes, Total	µg/kg	0.29	Max	5.6E+05	--	5E-07	--
24700 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	47.18	95UCL	8.3E+04	--	6E-04	--
24700 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	2.497	95UCL	8.5E+04	--	3E-05	--
24700 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	1.079	95UCL	3.6E+06	2.8E+03	3E-07	4E-10
24700 MARBELLA AVE	1-Methylnaphthalene	mg/kg	2.859	95UCL	4.0E+03	1.6E+01	7E-04	2E-07
24700 MARBELLA AVE	2-Methylnaphthalene	mg/kg	5.952	95UCL	2.3E+02	--	3E-02	--
24700 MARBELLA AVE	Benzene	µg/kg	0.286	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24700 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.24	Max	1.2E+03	3.5E+01	2E-04	7E-09
24700 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
24700 MARBELLA AVE	Cobalt	mg/kg	9.32	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24700 MARBELLA AVE	Ethylbenzene	µg/kg	376.8	95UCL	3.3E+06	4.8E+03	1E-04	8E-08
24700 MARBELLA AVE	Naphthalene	mg/kg	2.904	95UCL	1.5E+02	4.0E+00	2E-02	7E-07
24700 MARBELLA AVE	Pyrene	mg/kg	1.259	95UCL	1.7E+03	--	7E-04	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24700 MARBELLA AVE	Toluene	µg/kg	0.277	95UCL	4.8E+06	--	6E-08	--
24700 MARBELLA AVE	TPH as Diesel	mg/kg	4911	95UCL	1.3E+03	--	4E+00	--
24700 MARBELLA AVE	TPH as Gasoline	mg/kg	299	95UCL	7.6E+02	--	4E-01	--
24700 MARBELLA AVE	TPH as Motor Oil	mg/kg	5546	95UCL	3.3E+03	--	2E+00	--
24700 MARBELLA AVE	Xylenes, Total	µg/kg	97.18	95UCL	5.6E+05	--	2E-04	--
24700 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	45.1	95UCL	8.3E+04	--	6E-04	--
24700 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	53	Max	8.5E+04	--	6E-04	--
24700 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.1	Max	4.0E+03	1.6E+01	3E-04	7E-08
24700 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.119	95UCL	2.3E+02	--	5E-04	--
24700 RAVENNA AVE	Benzene	µg/kg	0.32	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
24700 RAVENNA AVE	Bromomethane	µg/kg	2	Max	8.8E+03	--	2E-04	--
24700 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.287	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24700 RAVENNA AVE	Ethylbenzene	µg/kg	23.93	95UCL	3.3E+06	4.8E+03	7E-06	5E-09
24700 RAVENNA AVE	Naphthalene	mg/kg	0.0547	95UCL	1.5E+02	4.0E+00	4E-04	1E-08
24700 RAVENNA AVE	Pyrene	mg/kg	0.0996	95UCL	1.7E+03	--	6E-05	--
24700 RAVENNA AVE	Toluene	µg/kg	0.285	95UCL	4.8E+06	--	6E-08	--
24700 RAVENNA AVE	TPH as Diesel	mg/kg	567.8	95UCL	1.3E+03	--	4E-01	--
24700 RAVENNA AVE	TPH as Gasoline	mg/kg	45.8	95UCL	7.6E+02	--	6E-02	--
24700 RAVENNA AVE	TPH as Motor Oil	mg/kg	1854	95UCL	3.3E+03	--	6E-01	--
24700 RAVENNA AVE	Xylenes, Total	µg/kg	0.418	95UCL	5.6E+05	--	8E-07	--
24702 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1449	95UCL	8.3E+04	--	2E-02	--
24702 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	22	Max	8.5E+04	--	3E-04	--
24702 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.24	Max	3.6E+06	2.8E+03	7E-08	9E-11
24702 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.61	95UCL	4.0E+03	1.6E+01	7E-04	2E-07
24702 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	3.697	95UCL	2.3E+02	--	2E-02	--
24702 NEPTUNE AVE	Benzene	µg/kg	2.615	95UCL	6.7E+04	2.2E+02	4E-05	1E-08
24702 NEPTUNE AVE	Ethylbenzene	µg/kg	37.08	95UCL	3.3E+06	4.8E+03	1E-05	8E-09
24702 NEPTUNE AVE	Naphthalene	mg/kg	1.604	95UCL	1.5E+02	4.0E+00	1E-02	4E-07
24702 NEPTUNE AVE	Pyrene	mg/kg	1.49	95UCL	1.7E+03	--	9E-04	--
24702 NEPTUNE AVE	Toluene	µg/kg	2.43	95UCL	4.8E+06	--	5E-07	--
24702 NEPTUNE AVE	TPH as Diesel	mg/kg	3333	95UCL	1.3E+03	--	3E+00	--
24702 NEPTUNE AVE	TPH as Gasoline	mg/kg	131.1	95UCL	7.6E+02	--	2E-01	--
24702 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5365	95UCL	3.3E+03	--	2E+00	--
24702 NEPTUNE AVE	Trichloroethene	µg/kg	0.41	Max	5.8E+03	1.2E+03	7E-05	3E-10
24702 NEPTUNE AVE	Xylenes, Total	µg/kg	13.09	95UCL	5.6E+05	--	2E-05	--
24702 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	7362	95UCL	8.3E+04	--	9E-02	--
24702 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	362.7	95UCL	8.5E+04	--	4E-03	--
24702 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.23	Max	3.6E+06	2.8E+03	6E-08	8E-11
24702 PANAMA AVE	1-Methylnaphthalene	mg/kg	5.251	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24702 PANAMA AVE	2-Methylnaphthalene	mg/kg	7.45	95UCL	2.3E+02	--	3E-02	--
24702 PANAMA AVE	Benzene	µg/kg	759.4	95UCL	6.7E+04	2.2E+02	1E-02	4E-06
24702 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.3	Max	1.2E+03	3.5E+01	1E-03	4E-08
24702 PANAMA AVE	Bromomethane	µg/kg	3	Max	8.8E+03	--	3E-04	--
24702 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	2.3E+02	1.3E+00	2E-03	3E-07
24702 PANAMA AVE	Ethylbenzene	µg/kg	1088	95UCL	3.3E+06	4.8E+03	3E-04	2E-07
24702 PANAMA AVE	Naphthalene	mg/kg	2.874	95UCL	1.5E+02	4.0E+00	2E-02	7E-07
24702 PANAMA AVE	Pyrene	mg/kg	3.121	95UCL	1.7E+03	--	2E-03	--
24702 PANAMA AVE	Toluene	µg/kg	27.94	95UCL	4.8E+06	--	6E-06	--
24702 PANAMA AVE	TPH as Diesel	mg/kg	1975	95UCL	1.3E+03	--	2E+00	--
24702 PANAMA AVE	TPH as Gasoline	mg/kg	640	95UCL	7.6E+02	--	8E-01	--
24702 PANAMA AVE	TPH as Motor Oil	mg/kg	2633	95UCL	3.3E+03	--	8E-01	--
24702 PANAMA AVE	Xylenes, Total	µg/kg	2742	95UCL	5.6E+05	--	5E-03	--
24703 MARBELLA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.133	95UCL	6.2E+05	4.7E+02	2E-07	3E-10
24703 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1.8	Max	8.3E+04	--	2E-05	--
24703 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.37	Max	8.5E+04	--	4E-06	--
24703 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0817	95UCL	4.0E+03	1.6E+01	2E-05	5E-09
24703 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0648	95UCL	2.3E+02	--	3E-04	--
24703 MARBELLA AVE	Benzene	µg/kg	0.205	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24703 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	5.4	Max	1.2E+03	3.5E+01	4E-03	2E-07
24703 MARBELLA AVE	Bromodichloromethane	µg/kg	0.17	Max	4.3E+05	4.9E+02	4E-07	4E-10
24703 MARBELLA AVE	Cobalt	mg/kg	11.25	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
24703 MARBELLA AVE	Ethylbenzene	µg/kg	0.3	Max	3.3E+06	4.8E+03	9E-08	6E-11
24703 MARBELLA AVE	Naphthalene	mg/kg	0.0306	95UCL	1.5E+02	4.0E+00	2E-04	8E-09

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24703 MARBELLA AVE	Pyrene	mg/kg	1.037	95UCL	1.7E+03	--	6E-04	--
24703 MARBELLA AVE	Toluene	µg/kg	0.22	95UCL	4.8E+06	--	5E-08	--
24703 MARBELLA AVE	TPH as Diesel	mg/kg	1050	95UCL	1.3E+03	--	8E-01	--
24703 MARBELLA AVE	TPH as Gasoline	mg/kg	0.066	95UCL	7.6E+02	--	9E-05	--
24703 MARBELLA AVE	TPH as Motor Oil	mg/kg	2102	95UCL	3.3E+03	--	6E-01	--
24703 MARBELLA AVE	Trichloroethene	µg/kg	0.33	Max	5.8E+03	1.2E+03	6E-05	3E-10
24703 MARBELLA AVE	Xylenes, Total	µg/kg	1.7	Max	5.6E+05	--	3E-06	--
24703 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	27.14	95UCL	8.3E+04	--	3E-04	--
24703 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.718	95UCL	4.0E+03	1.6E+01	4E-04	1E-07
24703 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	0.061	Max	1.2E+02	1.6E+00	5E-04	4E-08
24703 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.197	95UCL	2.3E+02	--	2E-02	--
24703 NEPTUNE AVE	Benzene	µg/kg	0.241	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24703 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.25	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24703 NEPTUNE AVE	Ethylbenzene	µg/kg	158.6	95UCL	3.3E+06	4.8E+03	5E-05	3E-08
24703 NEPTUNE AVE	Naphthalene	mg/kg	1.866	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24703 NEPTUNE AVE	Pyrene	mg/kg	0.262	95UCL	1.7E+03	--	2E-04	--
24703 NEPTUNE AVE	Toluene	µg/kg	0.269	95UCL	4.8E+06	--	6E-08	--
24703 NEPTUNE AVE	TPH as Diesel	mg/kg	3529	95UCL	1.3E+03	--	3E+00	--
24703 NEPTUNE AVE	TPH as Gasoline	mg/kg	173.3	95UCL	7.6E+02	--	2E-01	--
24703 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5796	95UCL	3.3E+03	--	2E+00	--
24703 NEPTUNE AVE	Xylenes, Total	µg/kg	2.873	95UCL	5.6E+05	--	5E-06	--
24703 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	892.2	95UCL	8.3E+04	--	1E-02	--
24703 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1200	Max	8.5E+04	--	1E-02	--
24703 RAVENNA AVE	1-Methylnaphthalene	mg/kg	5.515	95UCL	4.0E+03	1.6E+01	1E-03	4E-07
24703 RAVENNA AVE	2-Methylnaphthalene	mg/kg	8.868	95UCL	2.3E+02	--	4E-02	--
24703 RAVENNA AVE	Benzene	µg/kg	112.1	95UCL	6.7E+04	2.2E+02	2E-03	5E-07
24703 RAVENNA AVE	Bromomethane	µg/kg	2.5	Max	8.8E+03	--	3E-04	--
24703 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.26	Max	2.3E+02	1.3E+00	1E-03	2E-07
24703 RAVENNA AVE	Ethylbenzene	µg/kg	309	95UCL	3.3E+06	4.8E+03	1E-04	7E-08
24703 RAVENNA AVE	Naphthalene	mg/kg	3.599	95UCL	1.5E+02	4.0E+00	2E-02	9E-07
24703 RAVENNA AVE	Pyrene	mg/kg	0.819	95UCL	1.7E+03	--	5E-04	--
24703 RAVENNA AVE	Toluene	µg/kg	17.1	95UCL	4.8E+06	--	4E-06	--
24703 RAVENNA AVE	TPH as Diesel	mg/kg	2488	95UCL	1.3E+03	--	2E+00	--
24703 RAVENNA AVE	TPH as Gasoline	mg/kg	114.4	95UCL	7.6E+02	--	2E-01	--
24703 RAVENNA AVE	TPH as Motor Oil	mg/kg	2346	95UCL	3.3E+03	--	7E-01	--
24703 RAVENNA AVE	Xylenes, Total	µg/kg	331.2	95UCL	5.6E+05	--	6E-04	--
24706 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	118.5	95UCL	8.3E+04	--	1E-03	--
24706 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	34.07	95UCL	8.5E+04	--	4E-04	--
24706 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	16	Max	3.6E+06	2.8E+03	4E-06	6E-09
24706 MARBELLA AVE	1-Methylnaphthalene	mg/kg	9.151	95UCL	4.0E+03	1.6E+01	2E-03	6E-07
24706 MARBELLA AVE	2-Methylnaphthalene	mg/kg	13.9	95UCL	2.3E+02	--	6E-02	--
24706 MARBELLA AVE	Benzene	µg/kg	11.84	95UCL	6.7E+04	2.2E+02	2E-04	5E-08
24706 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.89	Max	1.2E+03	3.5E+01	7E-04	3E-08
24706 MARBELLA AVE	Cobalt	mg/kg	9.704	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24706 MARBELLA AVE	Ethylbenzene	µg/kg	590.3	95UCL	3.3E+06	4.8E+03	2E-04	1E-07
24706 MARBELLA AVE	Naphthalene	mg/kg	4.964	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24706 MARBELLA AVE	Pyrene	mg/kg	1.638	95UCL	1.7E+03	--	1E-03	--
24706 MARBELLA AVE	Toluene	µg/kg	3.877	95UCL	4.8E+06	--	8E-07	--
24706 MARBELLA AVE	TPH as Diesel	mg/kg	4299	95UCL	1.3E+03	--	3E+00	--
24706 MARBELLA AVE	TPH as Gasoline	mg/kg	223.5	95UCL	7.6E+02	--	3E-01	--
24706 MARBELLA AVE	TPH as Motor Oil	mg/kg	4028	95UCL	3.3E+03	--	1E+00	--
24706 MARBELLA AVE	Xylenes, Total	µg/kg	38.75	95UCL	5.6E+05	--	7E-05	--
24706 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.324	95UCL	8.3E+04	--	4E-06	--
24706 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	9.9	Max	8.5E+04	--	1E-04	--
24706 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0198	95UCL	2.3E+02	--	9E-05	--
24706 RAVENNA AVE	Benzene	µg/kg	0.342	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
24706 RAVENNA AVE	Bromomethane	µg/kg	2	Max	8.8E+03	--	2E-04	--
24706 RAVENNA AVE	Ethylbenzene	µg/kg	0.16	95UCL	3.3E+06	4.8E+03	5E-08	3E-11
24706 RAVENNA AVE	Naphthalene	mg/kg	0.00724	95UCL	1.5E+02	4.0E+00	5E-05	2E-09
24706 RAVENNA AVE	Pyrene	mg/kg	1.111	95UCL	1.7E+03	--	7E-04	--
24706 RAVENNA AVE	Toluene	µg/kg	0.223	95UCL	4.8E+06	--	5E-08	--
24706 RAVENNA AVE	TPH as Diesel	mg/kg	1091	95UCL	1.3E+03	--	8E-01	--
24706 RAVENNA AVE	TPH as Gasoline	mg/kg	0.116	95UCL	7.6E+02	--	2E-04	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24706 RAVENNA AVE	TPH as Motor Oil	mg/kg	2298	95UCL	3.3E+03	--	7E-01	--
24706 RAVENNA AVE	Xylenes, Total	µg/kg	3.404	95UCL	5.6E+05	--	6E-06	--
24707 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.347	95UCL	8.3E+04	--	4E-06	--
24707 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.116	95UCL	8.5E+04	--	1E-06	--
24707 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.25	Max	4.0E+03	1.6E+01	6E-05	2E-08
24707 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0101	95UCL	2.3E+02	--	4E-05	--
24707 MARBELLA AVE	Benzene	µg/kg	0.199	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24707 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.3	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24707 MARBELLA AVE	Cobalt	mg/kg	9.777	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24707 MARBELLA AVE	Ethylbenzene	µg/kg	2.316	95UCL	3.3E+06	4.8E+03	7E-07	5E-10
24707 MARBELLA AVE	Naphthalene	mg/kg	0.00501	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
24707 MARBELLA AVE	Pyrene	mg/kg	0.166	95UCL	1.7E+03	--	1E-04	--
24707 MARBELLA AVE	Toluene	µg/kg	0.457	95UCL	4.8E+06	--	1E-07	--
24707 MARBELLA AVE	TPH as Diesel	mg/kg	219.7	95UCL	1.3E+03	--	2E-01	--
24707 MARBELLA AVE	TPH as Gasoline	mg/kg	0.19	Max	7.6E+02	--	3E-04	--
24707 MARBELLA AVE	TPH as Motor Oil	mg/kg	501.5	95UCL	3.3E+03	--	2E-01	--
24707 MARBELLA AVE	Xylenes, Total	µg/kg	3.609	95UCL	5.6E+05	--	7E-06	--
24708 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	15.24	95UCL	8.3E+04	--	2E-04	--
24708 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.11	Max	8.5E+04	--	1E-06	--
24708 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.57	Max	3.6E+06	2.8E+03	2E-07	2E-10
24708 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0627	95UCL	4.0E+03	1.6E+01	2E-05	4E-09
24708 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.149	95UCL	2.3E+02	--	7E-04	--
24708 PANAMA AVE	Benzene	µg/kg	0.318	95UCL	6.7E+04	2.2E+02	5E-06	1E-09
24708 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	1.2E+03	3.5E+01	3E-04	1E-08
24708 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.498	95UCL	2.3E+02	1.3E+00	2E-03	4E-07
24708 PANAMA AVE	Ethylbenzene	µg/kg	4.387	95UCL	3.3E+06	4.8E+03	1E-06	9E-10
24708 PANAMA AVE	Naphthalene	mg/kg	0.0707	95UCL	1.5E+02	4.0E+00	5E-04	2E-08
24708 PANAMA AVE	Pyrene	mg/kg	0.668	95UCL	1.7E+03	--	4E-04	--
24708 PANAMA AVE	Toluene	µg/kg	0.355	95UCL	4.8E+06	--	7E-08	--
24708 PANAMA AVE	TPH as Diesel	mg/kg	1199	95UCL	1.3E+03	--	9E-01	--
24708 PANAMA AVE	TPH as Gasoline	mg/kg	0.334	95UCL	7.6E+02	--	4E-04	--
24708 PANAMA AVE	TPH as Motor Oil	mg/kg	2456	95UCL	3.3E+03	--	7E-01	--
24708 PANAMA AVE	Trichloroethene	µg/kg	0.18	Max	5.8E+03	1.2E+03	3E-05	2E-10
24708 PANAMA AVE	Xylenes, Total	µg/kg	7.806	95UCL	5.6E+05	--	1E-05	--
24709 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1251	95UCL	8.3E+04	--	2E-02	--
24709 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	130	Max	8.5E+04	--	2E-03	--
24709 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.679	95UCL	4.0E+03	1.6E+01	4E-04	1E-07
24709 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	3.72	95UCL	2.3E+02	--	2E-02	--
24709 NEPTUNE AVE	Benzene	µg/kg	89.33	95UCL	6.7E+04	2.2E+02	1E-03	4E-07
24709 NEPTUNE AVE	Ethylbenzene	µg/kg	335.6	95UCL	3.3E+06	4.8E+03	1E-04	7E-08
24709 NEPTUNE AVE	Naphthalene	mg/kg	0.887	95UCL	1.5E+02	4.0E+00	6E-03	2E-07
24709 NEPTUNE AVE	Pyrene	mg/kg	0.334	95UCL	1.7E+03	--	2E-04	--
24709 NEPTUNE AVE	Toluene	µg/kg	1.828	95UCL	4.8E+06	--	4E-07	--
24709 NEPTUNE AVE	TPH as Diesel	mg/kg	2429	95UCL	1.3E+03	--	2E+00	--
24709 NEPTUNE AVE	TPH as Gasoline	mg/kg	185.6	95UCL	7.6E+02	--	2E-01	--
24709 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3006	95UCL	3.3E+03	--	9E-01	--
24709 NEPTUNE AVE	Xylenes, Total	µg/kg	112.6	95UCL	5.6E+05	--	2E-04	--
24709 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	3568	95UCL	8.3E+04	--	4E-02	--
24709 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	1000	Max	8.5E+04	--	1E-02	--
24709 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.196	95UCL	4.0E+03	1.6E+01	3E-04	8E-08
24709 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.646	95UCL	2.3E+02	--	7E-03	--
24709 PANAMA AVE	Benzene	µg/kg	151.4	95UCL	6.7E+04	2.2E+02	2E-03	7E-07
24709 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.198	95UCL	2.3E+02	1.3E+00	8E-04	2E-07
24709 PANAMA AVE	Ethylbenzene	µg/kg	540.5	95UCL	3.3E+06	4.8E+03	2E-04	1E-07
24709 PANAMA AVE	Methylene Chloride	µg/kg	35	Max	3.6E+05	5.3E+03	1E-04	7E-09
24709 PANAMA AVE	Naphthalene	mg/kg	1.396	95UCL	1.5E+02	4.0E+00	9E-03	4E-07
24709 PANAMA AVE	Pyrene	mg/kg	1.363	95UCL	1.7E+03	--	8E-04	--
24709 PANAMA AVE	Toluene	µg/kg	0.227	95UCL	4.8E+06	--	5E-08	--
24709 PANAMA AVE	TPH as Diesel	mg/kg	1508	95UCL	1.3E+03	--	1E+00	--
24709 PANAMA AVE	TPH as Gasoline	mg/kg	208	95UCL	7.6E+02	--	3E-01	--
24709 PANAMA AVE	TPH as Motor Oil	mg/kg	2792	95UCL	3.3E+03	--	9E-01	--
24709 PANAMA AVE	Xylenes, Total	µg/kg	1238	95UCL	5.6E+05	--	2E-03	--
24709 RAVENNA AVE	1,1,2,2-Tetrachloroethane	µg/kg	330	Max	6.2E+05	4.7E+02	5E-04	7E-07

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Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24709 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2562	95UCL	8.3E+04	--	3E-02	--
24709 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	4700	Max	8.5E+04	--	6E-02	--
24709 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.902	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24709 RAVENNA AVE	2-Methylnaphthalene	mg/kg	7.004	95UCL	2.3E+02	--	3E-02	--
24709 RAVENNA AVE	Benzene	µg/kg	37.57	95UCL	6.7E+04	2.2E+02	6E-04	2E-07
24709 RAVENNA AVE	Bromomethane	µg/kg	350	Max	8.8E+03	--	4E-02	--
24709 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.3E+02	1.3E+00	9E-04	2E-07
24709 RAVENNA AVE	Ethylbenzene	µg/kg	2026	95UCL	3.3E+06	4.8E+03	6E-04	4E-07
24709 RAVENNA AVE	Naphthalene	mg/kg	2.552	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24709 RAVENNA AVE	Pyrene	mg/kg	0.505	95UCL	1.7E+03	--	3E-04	--
24709 RAVENNA AVE	Toluene	µg/kg	0.256	95UCL	4.8E+06	--	5E-08	--
24709 RAVENNA AVE	TPH as Diesel	mg/kg	2606	95UCL	1.3E+03	--	2E+00	--
24709 RAVENNA AVE	TPH as Gasoline	mg/kg	339	95UCL	7.6E+02	--	5E-01	--
24709 RAVENNA AVE	TPH as Motor Oil	mg/kg	2504	95UCL	3.3E+03	--	8E-01	--
24709 RAVENNA AVE	Xylenes, Total	µg/kg	1396	95UCL	5.6E+05	--	3E-03	--
24710 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2287	95UCL	8.3E+04	--	3E-02	--
24710 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	291.9	95UCL	8.5E+04	--	3E-03	--
24710 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	69	Max	3.6E+06	2.8E+03	2E-05	3E-08
24710 MARBELLA AVE	1-Methylnaphthalene	mg/kg	11.82	95UCL	4.0E+03	1.6E+01	3E-03	8E-07
24710 MARBELLA AVE	2-Methylnaphthalene	mg/kg	29.99	95UCL	2.3E+02	--	1E-01	--
24710 MARBELLA AVE	Benzene	µg/kg	439.9	95UCL	6.7E+04	2.2E+02	7E-03	2E-06
24710 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.1	Max	1.2E+03	3.5E+01	9E-04	3E-08
24710 MARBELLA AVE	Bromodichloromethane	µg/kg	0.21	Max	4.3E+05	4.9E+02	5E-07	4E-10
24710 MARBELLA AVE	Cobalt	mg/kg	10.32	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24710 MARBELLA AVE	Ethylbenzene	µg/kg	716.6	95UCL	3.3E+06	4.8E+03	2E-04	2E-07
24710 MARBELLA AVE	Naphthalene	mg/kg	5.353	95UCL	1.5E+02	4.0E+00	4E-02	1E-06
24710 MARBELLA AVE	Pyrene	mg/kg	2.361	95UCL	1.7E+03	--	1E-03	--
24710 MARBELLA AVE	Toluene	µg/kg	0.431	95UCL	4.8E+06	--	9E-08	--
24710 MARBELLA AVE	TPH as Diesel	mg/kg	6562	95UCL	1.3E+03	--	5E+00	--
24710 MARBELLA AVE	TPH as Gasoline	mg/kg	209.6	95UCL	7.6E+02	--	3E-01	--
24710 MARBELLA AVE	TPH as Motor Oil	mg/kg	6323	95UCL	3.3E+03	--	2E+00	--
24710 MARBELLA AVE	Xylenes, Total	µg/kg	3005	95UCL	5.6E+05	--	5E-03	--
24712 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	300	Max	8.3E+04	--	4E-03	--
24712 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	76	Max	8.5E+04	--	9E-04	--
24712 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.486	95UCL	4.0E+03	1.6E+01	6E-04	2E-07
24712 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	2.945	95UCL	2.3E+02	--	1E-02	--
24712 NEPTUNE AVE	Benzene	µg/kg	0.22	Max	6.7E+04	2.2E+02	3E-06	1E-09
24712 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.565	95UCL	1.2E+03	3.5E+01	5E-04	2E-08
24712 NEPTUNE AVE	Bromomethane	µg/kg	2.1	Max	8.8E+03	--	2E-04	--
24712 NEPTUNE AVE	Ethylbenzene	µg/kg	81.32	95UCL	3.3E+06	4.8E+03	3E-05	2E-08
24712 NEPTUNE AVE	Naphthalene	mg/kg	0.867	95UCL	1.5E+02	4.0E+00	6E-03	2E-07
24712 NEPTUNE AVE	Pyrene	mg/kg	0.551	95UCL	1.7E+03	--	3E-04	--
24712 NEPTUNE AVE	TPH as Diesel	mg/kg	2099	95UCL	1.3E+03	--	2E+00	--
24712 NEPTUNE AVE	TPH as Gasoline	mg/kg	142.7	95UCL	7.6E+02	--	2E-01	--
24712 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1741	95UCL	3.3E+03	--	5E-01	--
24712 NEPTUNE AVE	Xylenes, Total	µg/kg	34	Max	5.6E+05	--	6E-05	--
24712 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	11.62	95UCL	8.3E+04	--	1E-04	--
24712 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	3.857	95UCL	8.5E+04	--	5E-05	--
24712 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.664	95UCL	4.0E+03	1.6E+01	2E-04	4E-08
24712 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.279	95UCL	2.3E+02	--	6E-03	--
24712 PANAMA AVE	Benzene	µg/kg	0.182	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24712 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.3E+02	1.3E+00	2E-03	3E-07
24712 PANAMA AVE	Ethylbenzene	µg/kg	57	Max	3.3E+06	4.8E+03	2E-05	1E-08
24712 PANAMA AVE	Naphthalene	mg/kg	1.327	95UCL	1.5E+02	4.0E+00	9E-03	3E-07
24712 PANAMA AVE	Pyrene	mg/kg	1.191	95UCL	1.7E+03	--	7E-04	--
24712 PANAMA AVE	Toluene	µg/kg	0.144	95UCL	4.8E+06	--	3E-08	--
24712 PANAMA AVE	TPH as Diesel	mg/kg	5422	95UCL	1.3E+03	--	4E+00	--
24712 PANAMA AVE	TPH as Gasoline	mg/kg	163.4	95UCL	7.6E+02	--	2E-01	--
24712 PANAMA AVE	TPH as Motor Oil	mg/kg	7395	95UCL	3.3E+03	--	2E+00	--
24712 PANAMA AVE	Xylenes, Total	µg/kg	2.4	Max	5.6E+05	--	4E-06	--
24712 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	207.4	95UCL	8.3E+04	--	3E-03	--
24712 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	980	Max	8.5E+04	--	1E-02	--
24712 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.682	95UCL	4.0E+03	1.6E+01	4E-04	1E-07

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24712 RAVENNA AVE	2-Methylnaphthalene	mg/kg	2.162	95UCL	2.3E+02	--	9E-03	--
24712 RAVENNA AVE	Benzene	µg/kg	6.59	95UCL	6.7E+04	2.2E+02	1E-04	3E-08
24712 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	6.3	Max	1.2E+03	3.5E+01	5E-03	2E-07
24712 RAVENNA AVE	Bromomethane	µg/kg	800	Max	8.8E+03	--	9E-02	--
24712 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.2	95UCL	2.3E+02	1.3E+00	9E-04	2E-07
24712 RAVENNA AVE	Ethylbenzene	µg/kg	170	Max	3.3E+06	4.8E+03	5E-05	4E-08
24712 RAVENNA AVE	Naphthalene	mg/kg	0.728	95UCL	1.5E+02	4.0E+00	5E-03	2E-07
24712 RAVENNA AVE	Pyrene	mg/kg	0.57	95UCL	1.7E+03	--	3E-04	--
24712 RAVENNA AVE	Tetrachloroethene	µg/kg	0.17	Max	8.6E+04	5.5E+02	2E-06	3E-10
24712 RAVENNA AVE	Toluene	µg/kg	17.91	95UCL	4.8E+06	--	4E-06	--
24712 RAVENNA AVE	TPH as Diesel	mg/kg	1126	95UCL	1.3E+03	--	9E-01	--
24712 RAVENNA AVE	TPH as Gasoline	mg/kg	46.75	95UCL	7.6E+02	--	6E-02	--
24712 RAVENNA AVE	TPH as Motor Oil	mg/kg	2024	95UCL	3.3E+03	--	6E-01	--
24712 RAVENNA AVE	Xylenes, Total	µg/kg	73.19	95UCL	5.6E+05	--	1E-04	--
24713 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.284	95UCL	8.3E+04	--	3E-06	--
24713 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0389	95UCL	4.0E+03	1.6E+01	1E-05	3E-09
24713 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.108	95UCL	2.3E+02	--	5E-04	--
24713 MARBELLA AVE	Benzene	µg/kg	0.391	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24713 MARBELLA AVE	Cobalt	mg/kg	10.48	95UCL	2.3E+01	3.1E+04	5E-01	3E-10
24713 MARBELLA AVE	Naphthalene	mg/kg	0.693	95UCL	1.5E+02	4.0E+00	5E-03	2E-07
24713 MARBELLA AVE	Pyrene	mg/kg	0.0514	95UCL	1.7E+03	--	3E-05	--
24713 MARBELLA AVE	Toluene	µg/kg	0.276	95UCL	4.8E+06	--	6E-08	--
24713 MARBELLA AVE	TPH as Diesel	mg/kg	158.6	95UCL	1.3E+03	--	1E-01	--
24713 MARBELLA AVE	TPH as Gasoline	mg/kg	0.075	Max	7.6E+02	--	1E-04	--
24713 MARBELLA AVE	TPH as Motor Oil	mg/kg	525	95UCL	3.3E+03	--	2E-01	--
24713 MARBELLA AVE	Xylenes, Total	µg/kg	0.35	Max	5.6E+05	--	6E-07	--
24713 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	14.86	95UCL	8.3E+04	--	2E-04	--
24713 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	2.988	95UCL	8.5E+04	--	4E-05	--
24713 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.673	95UCL	4.0E+03	1.6E+01	2E-04	4E-08
24713 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.398	95UCL	2.3E+02	--	6E-03	--
24713 PANAMA AVE	Benzene	µg/kg	1.545	95UCL	6.7E+04	2.2E+02	2E-05	7E-09
24713 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.65	Max	1.2E+03	3.5E+01	5E-04	2E-08
24713 PANAMA AVE	Bromomethane	µg/kg	1.576	95UCL	8.8E+03	--	2E-04	--
24713 PANAMA AVE	Ethylbenzene	µg/kg	16.58	95UCL	3.3E+06	4.8E+03	5E-06	4E-09
24713 PANAMA AVE	Methylene Chloride	µg/kg	6.136	95UCL	3.6E+05	5.3E+03	2E-05	1E-09
24713 PANAMA AVE	Naphthalene	mg/kg	0.397	95UCL	1.5E+02	4.0E+00	3E-03	1E-07
24713 PANAMA AVE	Pyrene	mg/kg	1.043	95UCL	1.7E+03	--	6E-04	--
24713 PANAMA AVE	Toluene	µg/kg	0.427	95UCL	4.8E+06	--	9E-08	--
24713 PANAMA AVE	TPH as Diesel	mg/kg	2361	95UCL	1.3E+03	--	2E+00	--
24713 PANAMA AVE	TPH as Gasoline	mg/kg	75.41	95UCL	7.6E+02	--	1E-01	--
24713 PANAMA AVE	TPH as Motor Oil	mg/kg	4714	95UCL	3.3E+03	--	1E+00	--
24713 PANAMA AVE	Xylenes, Total	µg/kg	2.83	95UCL	5.6E+05	--	5E-06	--
24713 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	21000	Max	8.3E+04	--	3E-01	--
24713 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	7100	Max	8.5E+04	--	8E-02	--
24713 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.695	95UCL	4.0E+03	1.6E+01	4E-04	1E-07
24713 RAVENNA AVE	2-Methylnaphthalene	mg/kg	5.359	95UCL	2.3E+02	--	2E-02	--
24713 RAVENNA AVE	Benzene	µg/kg	7.518	95UCL	6.7E+04	2.2E+02	1E-04	3E-08
24713 RAVENNA AVE	Ethylbenzene	µg/kg	2100	Max	3.3E+06	4.8E+03	6E-04	4E-07
24713 RAVENNA AVE	Naphthalene	mg/kg	2.21	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24713 RAVENNA AVE	Pyrene	mg/kg	0.171	95UCL	1.7E+03	--	1E-04	--
24713 RAVENNA AVE	Toluene	µg/kg	58	Max	4.8E+06	--	1E-05	--
24713 RAVENNA AVE	TPH as Diesel	mg/kg	2403	95UCL	1.3E+03	--	2E+00	--
24713 RAVENNA AVE	TPH as Gasoline	mg/kg	299.4	95UCL	7.6E+02	--	4E-01	--
24713 RAVENNA AVE	TPH as Motor Oil	mg/kg	2398	95UCL	3.3E+03	--	7E-01	--
24713 RAVENNA AVE	Xylenes, Total	µg/kg	1124	95UCL	5.6E+05	--	2E-03	--
24715 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	21.41	95UCL	8.3E+04	--	3E-04	--
24715 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	18	Max	8.5E+04	--	2E-04	--
24715 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.152	95UCL	4.0E+03	1.6E+01	3E-04	7E-08
24715 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	1.888	95UCL	2.3E+02	--	8E-03	--
24715 NEPTUNE AVE	Benzene	µg/kg	5.817	95UCL	6.7E+04	2.2E+02	9E-05	3E-08
24715 NEPTUNE AVE	Benzo (a) Anthracene	mg/kg	0.712	95UCL	--	1.6E+00	--	5E-07
24715 NEPTUNE AVE	Benzo (a) Pyrene	mg/kg	0.398	95UCL	--	1.6E-01	--	3E-06
24715 NEPTUNE AVE	Benzo (b) Fluoranthene	mg/kg	0.24	95UCL	--	1.6E+00	--	2E-07

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24715 NEPTUNE AVE	Benzo (k) Fluoranthene	mg/kg	0.0507	95UCL	--	1.6E+00	--	3E-08
24715 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.34	Max	1.2E+03	3.5E+01	3E-04	1E-08
24715 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.23	Max	2.3E+02	1.3E+00	1E-03	2E-07
24715 NEPTUNE AVE	Chrysene	mg/kg	1.812	95UCL	--	1.6E+01	--	1E-07
24715 NEPTUNE AVE	Dibenz (a,h) Anthracene	mg/kg	0.127	95UCL	--	1.1E-01	--	1E-06
24715 NEPTUNE AVE	Ethylbenzene	µg/kg	314	95UCL	3.3E+06	4.8E+03	1E-04	7E-08
24715 NEPTUNE AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.107	95UCL	--	1.6E+00	--	7E-08
24715 NEPTUNE AVE	Naphthalene	mg/kg	1.385	95UCL	1.5E+02	4.0E+00	9E-03	4E-07
24715 NEPTUNE AVE	Pyrene	mg/kg	1.246	95UCL	1.7E+03	--	7E-04	--
24715 NEPTUNE AVE	Toluene	µg/kg	2.765	95UCL	4.8E+06	--	6E-07	--
24715 NEPTUNE AVE	TPH as Diesel	mg/kg	5132	95UCL	1.3E+03	--	4E+00	--
24715 NEPTUNE AVE	TPH as Gasoline	mg/kg	134.8	95UCL	7.6E+02	--	2E-01	--
24715 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5412	95UCL	3.3E+03	--	2E+00	--
24715 NEPTUNE AVE	Xylenes, Total	µg/kg	15.24	95UCL	5.6E+05	--	3E-05	--
24716 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	27000	Max	8.3E+04	--	3E-01	--
24716 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	10000	Max	8.5E+04	--	1E-01	--
24716 MARBELLA AVE	1-Methylnaphthalene	mg/kg	2.857	95UCL	4.0E+03	1.6E+01	7E-04	2E-07
24716 MARBELLA AVE	2-Methylnaphthalene	mg/kg	3.949	95UCL	2.3E+02	--	2E-02	--
24716 MARBELLA AVE	Benzene	µg/kg	284	95UCL	6.7E+04	2.2E+02	4E-03	1E-06
24716 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	1.2E+03	3.5E+01	1E-04	5E-09
24716 MARBELLA AVE	Cobalt	mg/kg	10.02	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24716 MARBELLA AVE	Ethylbenzene	µg/kg	9000	Max	3.3E+06	4.8E+03	3E-03	2E-06
24716 MARBELLA AVE	Naphthalene	mg/kg	1.676	95UCL	1.5E+02	4.0E+00	1E-02	4E-07
24716 MARBELLA AVE	Pyrene	mg/kg	1.244	95UCL	1.7E+03	--	7E-04	--
24716 MARBELLA AVE	Toluene	µg/kg	0.298	95UCL	4.8E+06	--	6E-08	--
24716 MARBELLA AVE	TPH as Diesel	mg/kg	4212	95UCL	1.3E+03	--	3E+00	--
24716 MARBELLA AVE	TPH as Gasoline	mg/kg	267.9	95UCL	7.6E+02	--	4E-01	--
24716 MARBELLA AVE	TPH as Motor Oil	mg/kg	4257	95UCL	3.3E+03	--	1E+00	--
24716 MARBELLA AVE	Xylenes, Total	µg/kg	6338	95UCL	5.6E+05	--	1E-02	--
24716 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2.1	Max	8.3E+04	--	3E-05	--
24716 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1.2	Max	8.5E+04	--	1E-05	--
24716 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.492	95UCL	4.0E+03	1.6E+01	1E-04	3E-08
24716 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.439	95UCL	2.3E+02	--	2E-03	--
24716 RAVENNA AVE	Benzene	µg/kg	0.493	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
24716 RAVENNA AVE	Ethylbenzene	µg/kg	0.45	Max	3.3E+06	4.8E+03	1E-07	9E-11
24716 RAVENNA AVE	Naphthalene	mg/kg	0.0622	95UCL	1.5E+02	4.0E+00	4E-04	2E-08
24716 RAVENNA AVE	Pyrene	mg/kg	0.813	95UCL	1.7E+03	--	5E-04	--
24716 RAVENNA AVE	Toluene	µg/kg	0.284	95UCL	4.8E+06	--	6E-08	--
24716 RAVENNA AVE	TPH as Diesel	mg/kg	2376	95UCL	1.3E+03	--	2E+00	--
24716 RAVENNA AVE	TPH as Gasoline	mg/kg	0.879	95UCL	7.6E+02	--	1E-03	--
24716 RAVENNA AVE	TPH as Motor Oil	mg/kg	2438	95UCL	3.3E+03	--	7E-01	--
24716 RAVENNA AVE	Xylenes, Total	µg/kg	2.8	Max	5.6E+05	--	5E-06	--
24717 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	37.22	95UCL	8.3E+04	--	5E-04	--
24717 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	12.37	95UCL	8.5E+04	--	2E-04	--
24717 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.29	Max	3.6E+06	2.8E+03	8E-08	1E-10
24717 MARBELLA AVE	1-Methylnaphthalene	mg/kg	4.653	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24717 MARBELLA AVE	2-Methylnaphthalene	mg/kg	5.497	95UCL	2.3E+02	--	2E-02	--
24717 MARBELLA AVE	Benzene	µg/kg	3.095	95UCL	6.7E+04	2.2E+02	5E-05	1E-08
24717 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.242	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24717 MARBELLA AVE	Cobalt	mg/kg	9.152	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24717 MARBELLA AVE	Ethylbenzene	µg/kg	33.22	95UCL	3.3E+06	4.8E+03	1E-05	7E-09
24717 MARBELLA AVE	Naphthalene	mg/kg	1.836	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24717 MARBELLA AVE	Pyrene	mg/kg	1.084	95UCL	1.7E+03	--	6E-04	--
24717 MARBELLA AVE	Toluene	µg/kg	0.404	95UCL	4.8E+06	--	8E-08	--
24717 MARBELLA AVE	TPH as Diesel	mg/kg	2470	95UCL	1.3E+03	--	2E+00	--
24717 MARBELLA AVE	TPH as Gasoline	mg/kg	65.41	95UCL	7.6E+02	--	9E-02	--
24717 MARBELLA AVE	TPH as Motor Oil	mg/kg	2545	95UCL	3.3E+03	--	8E-01	--
24717 MARBELLA AVE	Xylenes, Total	µg/kg	10.64	95UCL	5.6E+05	--	2E-05	--
24718 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	6210	95UCL	8.3E+04	--	8E-02	--
24718 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	2588	95UCL	8.5E+04	--	3E-02	--
24718 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	4.663	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
24718 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	11.61	95UCL	2.3E+02	--	5E-02	--
24718 NEPTUNE AVE	Antimony	mg/kg	0.709	95UCL	3.1E+01	--	2E-02	--

Appendix E
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Table E-2
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Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24718 NEPTUNE AVE	Benzene	µg/kg	122.1	95UCL	6.7E+04	2.2E+02	2E-03	6E-07
24718 NEPTUNE AVE	Ethylbenzene	µg/kg	2135	95UCL	3.3E+06	4.8E+03	7E-04	5E-07
24718 NEPTUNE AVE	Naphthalene	mg/kg	5.099	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24718 NEPTUNE AVE	Pyrene	mg/kg	0.667	95UCL	1.7E+03	--	4E-04	--
24718 NEPTUNE AVE	Toluene	µg/kg	1.247	95UCL	4.8E+06	--	3E-07	--
24718 NEPTUNE AVE	TPH as Diesel	mg/kg	5730	95UCL	1.3E+03	--	4E+00	--
24718 NEPTUNE AVE	TPH as Gasoline	mg/kg	591.5	95UCL	7.6E+02	--	8E-01	--
24718 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6328	95UCL	3.3E+03	--	2E+00	--
24718 NEPTUNE AVE	Trichloroethene	µg/kg	0.23	Max	5.8E+03	1.2E+03	4E-05	2E-10
24718 NEPTUNE AVE	Xylenes, Total	µg/kg	8120	95UCL	5.6E+05	--	2E-02	--
24718 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	1.2	Max	2.4E+03	2.1E+01	5E-04	6E-08
24718 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	32.35	95UCL	8.3E+04	--	4E-04	--
24718 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	13.66	95UCL	8.5E+04	--	2E-04	--
24718 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.987	95UCL	4.0E+03	1.6E+01	3E-04	6E-08
24718 PANAMA AVE	2-Methylnaphthalene	mg/kg	2.029	95UCL	2.3E+02	--	9E-03	--
24718 PANAMA AVE	Benzene	µg/kg	0.47	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
24718 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.1	Max	1.2E+03	3.5E+01	9E-04	3E-08
24718 PANAMA AVE	Bromomethane	µg/kg	680	Max	8.8E+03	--	8E-02	--
24718 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.286	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24718 PANAMA AVE	Ethylbenzene	µg/kg	12.56	95UCL	3.3E+06	4.8E+03	4E-06	3E-09
24718 PANAMA AVE	Naphthalene	mg/kg	0.6	95UCL	1.5E+02	4.0E+00	4E-03	2E-07
24718 PANAMA AVE	Pyrene	mg/kg	10.13	95UCL	1.7E+03	--	6E-03	--
24718 PANAMA AVE	Toluene	µg/kg	0.366	95UCL	4.8E+06	--	8E-08	--
24718 PANAMA AVE	TPH as Diesel	mg/kg	2402	95UCL	1.3E+03	--	2E+00	--
24718 PANAMA AVE	TPH as Gasoline	mg/kg	0.646	95UCL	7.6E+02	--	9E-04	--
24718 PANAMA AVE	TPH as Motor Oil	mg/kg	3427	95UCL	3.3E+03	--	1E+00	--
24718 PANAMA AVE	Xylenes, Total	µg/kg	8.897	95UCL	5.6E+05	--	2E-05	--
24719 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	373.5	95UCL	8.3E+04	--	5E-03	--
24719 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	8.947	95UCL	8.5E+04	--	1E-04	--
24719 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	170	Max	3.6E+06	2.8E+03	5E-05	6E-08
24719 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.544	95UCL	4.0E+03	1.6E+01	6E-04	2E-07
24719 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	8.468	95UCL	2.3E+02	--	4E-02	--
24719 NEPTUNE AVE	Benzene	µg/kg	6.605	95UCL	6.7E+04	2.2E+02	1E-04	3E-08
24719 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.598	95UCL	1.2E+03	3.5E+01	5E-04	2E-08
24719 NEPTUNE AVE	Bromomethane	µg/kg	1.8	Max	8.8E+03	--	2E-04	--
24719 NEPTUNE AVE	Ethylbenzene	µg/kg	1933	95UCL	3.3E+06	4.8E+03	6E-04	4E-07
24719 NEPTUNE AVE	Naphthalene	mg/kg	3.471	95UCL	1.5E+02	4.0E+00	2E-02	9E-07
24719 NEPTUNE AVE	Pyrene	mg/kg	0.481	95UCL	1.7E+03	--	3E-04	--
24719 NEPTUNE AVE	Toluene	µg/kg	0.66	95UCL	4.8E+06	--	1E-07	--
24719 NEPTUNE AVE	TPH as Diesel	mg/kg	3042	95UCL	1.3E+03	--	2E+00	--
24719 NEPTUNE AVE	TPH as Gasoline	mg/kg	413.5	95UCL	7.6E+02	--	5E-01	--
24719 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3846	95UCL	3.3E+03	--	1E+00	--
24719 NEPTUNE AVE	Xylenes, Total	µg/kg	33.13	95UCL	5.6E+05	--	6E-05	--
24719 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	30.82	95UCL	8.3E+04	--	4E-04	--
24719 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	81	Max	8.5E+04	--	1E-03	--
24719 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.41	95UCL	4.0E+03	1.6E+01	1E-04	3E-08
24719 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.586	95UCL	2.3E+02	--	3E-03	--
24719 PANAMA AVE	Benzene	µg/kg	0.317	95UCL	6.7E+04	2.2E+02	5E-06	1E-09
24719 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.22	Max	1.2E+03	3.5E+01	2E-04	6E-09
24719 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.298	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24719 PANAMA AVE	Ethylbenzene	µg/kg	2.932	95UCL	3.3E+06	4.8E+03	9E-07	6E-10
24719 PANAMA AVE	Naphthalene	mg/kg	0.00895	95UCL	1.5E+02	4.0E+00	6E-05	2E-09
24719 PANAMA AVE	Pyrene	mg/kg	2.057	95UCL	1.7E+03	--	1E-03	--
24719 PANAMA AVE	Toluene	µg/kg	0.216	95UCL	4.8E+06	--	5E-08	--
24719 PANAMA AVE	TPH as Diesel	mg/kg	1938	95UCL	1.3E+03	--	2E+00	--
24719 PANAMA AVE	TPH as Gasoline	mg/kg	0.217	95UCL	7.6E+02	--	3E-04	--
24719 PANAMA AVE	TPH as Motor Oil	mg/kg	3765	95UCL	3.3E+03	--	1E+00	--
24719 PANAMA AVE	Xylenes, Total	µg/kg	8.697	95UCL	5.6E+05	--	2E-05	--
24719 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	5878	95UCL	8.3E+04	--	7E-02	--
24719 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1400	95UCL	8.5E+04	--	2E-02	--
24719 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.27	Max	3.6E+06	2.8E+03	7E-08	1E-10
24719 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.181	95UCL	4.0E+03	1.6E+01	8E-04	2E-07
24719 RAVENNA AVE	2-Methylnaphthalene	mg/kg	9.493	95UCL	2.3E+02	--	4E-02	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil <=5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24719 RAVENNA AVE	Benzene	µg/kg	43.13	95UCL	6.7E+04	2.2E+02	7E-04	2E-07
24719 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.5	Max	1.2E+03	3.5E+01	1E-03	4E-08
24719 RAVENNA AVE	Bromomethane	µg/kg	820	Max	8.8E+03	--	9E-02	--
24719 RAVENNA AVE	Chromium, Hexavalent	mg/kg	1.1	Max	2.3E+02	1.3E+00	5E-03	9E-07
24719 RAVENNA AVE	Ethylbenzene	µg/kg	1050	95UCL	3.3E+06	4.8E+03	3E-04	2E-07
24719 RAVENNA AVE	Naphthalene	mg/kg	2.282	95UCL	1.5E+02	4.0E+00	2E-02	6E-07
24719 RAVENNA AVE	Pyrene	mg/kg	0.299	95UCL	1.7E+03	--	2E-04	--
24719 RAVENNA AVE	Toluene	µg/kg	967.3	95UCL	4.8E+06	--	2E-04	--
24719 RAVENNA AVE	TPH as Diesel	mg/kg	3816	95UCL	1.3E+03	--	3E+00	--
24719 RAVENNA AVE	TPH as Gasoline	mg/kg	567	95UCL	7.6E+02	--	8E-01	--
24719 RAVENNA AVE	TPH as Motor Oil	mg/kg	3821	95UCL	3.3E+03	--	1E+00	--
24719 RAVENNA AVE	Xylenes, Total	µg/kg	10585	95UCL	5.6E+05	--	2E-02	--
24722 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.54	Max	8.3E+04	--	7E-06	--
24722 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0101	95UCL	4.0E+03	1.6E+01	3E-06	7E-10
24722 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0151	95UCL	2.3E+02	--	7E-05	--
24722 MARBELLA AVE	Benzene	µg/kg	0.146	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24722 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.34	Max	1.2E+03	3.5E+01	3E-04	1E-08
24722 MARBELLA AVE	Bromomethane	µg/kg	0.92	Max	8.8E+03	--	1E-04	--
24722 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.7	Max	2.3E+02	1.3E+00	3E-03	6E-07
24722 MARBELLA AVE	Naphthalene	mg/kg	0.00654	95UCL	1.5E+02	4.0E+00	4E-05	2E-09
24722 MARBELLA AVE	Pyrene	mg/kg	0.737	95UCL	1.7E+03	--	4E-04	--
24722 MARBELLA AVE	Toluene	µg/kg	1.186	95UCL	4.8E+06	--	3E-07	--
24722 MARBELLA AVE	TPH as Diesel	mg/kg	1179	95UCL	1.3E+03	--	9E-01	--
24722 MARBELLA AVE	TPH as Gasoline	mg/kg	0.408	95UCL	7.6E+02	--	5E-04	--
24722 MARBELLA AVE	TPH as Motor Oil	mg/kg	2752	95UCL	3.3E+03	--	8E-01	--
24722 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.51	Max	8.3E+04	--	6E-06	--
24722 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0034	95UCL	2.3E+02	--	2E-05	--
24722 NEPTUNE AVE	Benzene	µg/kg	0.797	95UCL	6.7E+04	2.2E+02	1E-05	4E-09
24722 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	1.2E+03	3.5E+01	1E-04	5E-09
24722 NEPTUNE AVE	Bromomethane	µg/kg	2.4	Max	8.8E+03	--	3E-04	--
24722 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.27	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24722 NEPTUNE AVE	Ethylbenzene	µg/kg	0.42	Max	3.3E+06	4.8E+03	1E-07	9E-11
24722 NEPTUNE AVE	Naphthalene	mg/kg	0.00198	95UCL	1.5E+02	4.0E+00	1E-05	5E-10
24722 NEPTUNE AVE	Pyrene	mg/kg	0.00842	95UCL	1.7E+03	--	5E-06	--
24722 NEPTUNE AVE	Toluene	µg/kg	0.764	95UCL	4.8E+06	--	2E-07	--
24722 NEPTUNE AVE	TPH as Diesel	mg/kg	25.87	95UCL	1.3E+03	--	2E-02	--
24722 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.0759	95UCL	7.6E+02	--	1E-04	--
24722 NEPTUNE AVE	TPH as Motor Oil	mg/kg	76.23	95UCL	3.3E+03	--	2E-02	--
24722 NEPTUNE AVE	Xylenes, Total	µg/kg	0.341	95UCL	5.6E+05	--	6E-07	--
24722 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.216	95UCL	8.3E+04	--	3E-06	--
24722 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.12	Max	8.5E+04	--	1E-06	--
24722 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.558	95UCL	4.0E+03	1.6E+01	1E-04	4E-08
24722 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.436	95UCL	2.3E+02	--	2E-03	--
24722 PANAMA AVE	Benzene	µg/kg	0.233	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24722 PANAMA AVE	Naphthalene	mg/kg	0.108	95UCL	1.5E+02	4.0E+00	7E-04	3E-08
24722 PANAMA AVE	Pyrene	mg/kg	0.796	95UCL	1.7E+03	--	5E-04	--
24722 PANAMA AVE	Toluene	µg/kg	0.277	95UCL	4.8E+06	--	6E-08	--
24722 PANAMA AVE	TPH as Diesel	mg/kg	1333	95UCL	1.3E+03	--	1E+00	--
24722 PANAMA AVE	TPH as Gasoline	mg/kg	0.151	95UCL	7.6E+02	--	2E-04	--
24722 PANAMA AVE	TPH as Motor Oil	mg/kg	1966	95UCL	3.3E+03	--	6E-01	--
24722 PANAMA AVE	Xylenes, Total	µg/kg	0.46	Max	5.6E+05	--	8E-07	--
24722 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	173.4	95UCL	8.3E+04	--	2E-03	--
24722 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	42.72	95UCL	8.5E+04	--	5E-04	--
24722 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.335	95UCL	4.0E+03	1.6E+01	3E-04	9E-08
24722 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.731	95UCL	2.3E+02	--	8E-03	--
24722 RAVENNA AVE	Benzene	µg/kg	3.075	95UCL	6.7E+04	2.2E+02	5E-05	1E-08
24722 RAVENNA AVE	Bromomethane	µg/kg	0.97	95UCL	8.8E+03	--	1E-04	--
24722 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.437	95UCL	2.3E+02	1.3E+00	2E-03	3E-07
24722 RAVENNA AVE	Ethylbenzene	µg/kg	24.07	95UCL	3.3E+06	4.8E+03	7E-06	5E-09
24722 RAVENNA AVE	Naphthalene	mg/kg	0.59	95UCL	1.5E+02	4.0E+00	4E-03	2E-07
24722 RAVENNA AVE	Pyrene	mg/kg	1.222	95UCL	1.7E+03	--	7E-04	--
24722 RAVENNA AVE	Toluene	µg/kg	6.475	95UCL	4.8E+06	--	1E-06	--
24722 RAVENNA AVE	TPH as Diesel	mg/kg	3041	95UCL	1.3E+03	--	2E+00	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24722 RAVENNA AVE	TPH as Gasoline	mg/kg	1.674	95UCL	7.6E+02	--	2E-03	--
24722 RAVENNA AVE	TPH as Motor Oil	mg/kg	6791	95UCL	3.3E+03	--	2E+00	--
24722 RAVENNA AVE	Xylenes, Total	µg/kg	60.51	95UCL	5.6E+05	--	1E-04	--
24723 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	16.58	95UCL	8.3E+04	--	2E-04	--
24723 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	9.3	Max	8.5E+04	--	1E-04	--
24723 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.2	Max	3.6E+06	2.8E+03	6E-08	7E-11
24723 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.18	Max	4.0E+03	1.6E+01	5E-05	1E-08
24723 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0279	95UCL	2.3E+02	--	1E-04	--
24723 MARBELLA AVE	Benzene	µg/kg	1.573	95UCL	6.7E+04	2.2E+02	2E-05	7E-09
24723 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.39	Max	1.2E+03	3.5E+01	3E-04	1E-08
24723 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.23	Max	2.3E+02	1.3E+00	1E-03	2E-07
24723 MARBELLA AVE	Cobalt	mg/kg	9.425	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24723 MARBELLA AVE	Ethylbenzene	µg/kg	22	Max	3.3E+06	4.8E+03	7E-06	5E-09
24723 MARBELLA AVE	Naphthalene	mg/kg	0.106	95UCL	1.5E+02	4.0E+00	7E-04	3E-08
24723 MARBELLA AVE	Pyrene	mg/kg	0.839	95UCL	1.7E+03	--	5E-04	--
24723 MARBELLA AVE	Tetrachloroethene	µg/kg	0.32	Max	8.6E+04	5.5E+02	4E-06	6E-10
24723 MARBELLA AVE	Toluene	µg/kg	1.012	95UCL	4.8E+06	--	2E-07	--
24723 MARBELLA AVE	TPH as Diesel	mg/kg	1842	95UCL	1.3E+03	--	1E+00	--
24723 MARBELLA AVE	TPH as Gasoline	mg/kg	1	Max	7.6E+02	--	1E-03	--
24723 MARBELLA AVE	TPH as Motor Oil	mg/kg	2477	95UCL	3.3E+03	--	8E-01	--
24723 MARBELLA AVE	Xylenes, Total	µg/kg	0.509	95UCL	5.6E+05	--	9E-07	--
24723 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.34	Max	8.3E+04	--	4E-06	--
24723 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	170	Max	3.6E+06	2.8E+03	5E-05	6E-08
24723 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.206	95UCL	4.0E+03	1.6E+01	5E-05	1E-08
24723 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.152	95UCL	2.3E+02	--	7E-04	--
24723 RAVENNA AVE	Benzene	µg/kg	0.187	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24723 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.34	Max	1.2E+03	3.5E+01	3E-04	1E-08
24723 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.37	95UCL	2.3E+02	1.3E+00	2E-03	3E-07
24723 RAVENNA AVE	Ethylbenzene	µg/kg	15	Max	3.3E+06	4.8E+03	5E-06	3E-09
24723 RAVENNA AVE	Naphthalene	mg/kg	0.109	95UCL	1.5E+02	4.0E+00	7E-04	3E-08
24723 RAVENNA AVE	Pyrene	mg/kg	0.188	95UCL	1.7E+03	--	1E-04	--
24723 RAVENNA AVE	Toluene	µg/kg	0.276	95UCL	4.8E+06	--	6E-08	--
24723 RAVENNA AVE	TPH as Diesel	mg/kg	1254	95UCL	1.3E+03	--	1E+00	--
24723 RAVENNA AVE	TPH as Gasoline	mg/kg	0.124	95UCL	7.6E+02	--	2E-04	--
24723 RAVENNA AVE	TPH as Motor Oil	mg/kg	1339	95UCL	3.3E+03	--	4E-01	--
24723 RAVENNA AVE	Xylenes, Total	µg/kg	0.73	Max	5.6E+05	--	1E-06	--
24725 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0022	Max	4.0E+03	1.6E+01	6E-07	1E-10
24725 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.00961	95UCL	2.3E+02	--	4E-05	--
24725 NEPTUNE AVE	Benzene	µg/kg	0.15	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24725 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.36	Max	1.2E+03	3.5E+01	3E-04	1E-08
24725 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.203	95UCL	2.3E+02	1.3E+00	9E-04	2E-07
24725 NEPTUNE AVE	Naphthalene	mg/kg	0.00555	95UCL	1.5E+02	4.0E+00	4E-05	1E-09
24725 NEPTUNE AVE	Pyrene	mg/kg	0.407	95UCL	1.7E+03	--	2E-04	--
24725 NEPTUNE AVE	Toluene	µg/kg	0.338	95UCL	4.8E+06	--	7E-08	--
24725 NEPTUNE AVE	TPH as Diesel	mg/kg	261.7	95UCL	1.3E+03	--	2E-01	--
24725 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.0722	95UCL	7.6E+02	--	1E-04	--
24725 NEPTUNE AVE	TPH as Motor Oil	mg/kg	571.4	95UCL	3.3E+03	--	2E-01	--
24726 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	120	Max	8.3E+04	--	2E-03	--
24726 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	9.5	Max	8.5E+04	--	1E-04	--
24726 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.201	95UCL	4.0E+03	1.6E+01	5E-05	1E-08
24726 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.446	95UCL	2.3E+02	--	2E-03	--
24726 MARBELLA AVE	Benzene	µg/kg	0.718	95UCL	6.7E+04	2.2E+02	1E-05	3E-09
24726 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.1	Max	1.2E+03	3.5E+01	9E-04	3E-08
24726 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.347	95UCL	2.3E+02	1.3E+00	2E-03	3E-07
24726 MARBELLA AVE	Cobalt	mg/kg	10.3	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24726 MARBELLA AVE	Ethylbenzene	µg/kg	40	Max	3.3E+06	4.8E+03	1E-05	8E-09
24726 MARBELLA AVE	Naphthalene	mg/kg	0.0862	95UCL	1.5E+02	4.0E+00	6E-04	2E-08
24726 MARBELLA AVE	Pyrene	mg/kg	0.322	95UCL	1.7E+03	--	2E-04	--
24726 MARBELLA AVE	Toluene	µg/kg	2.865	95UCL	4.8E+06	--	6E-07	--
24726 MARBELLA AVE	TPH as Diesel	mg/kg	478.7	95UCL	1.3E+03	--	4E-01	--
24726 MARBELLA AVE	TPH as Gasoline	mg/kg	9.488	95UCL	7.6E+02	--	1E-02	--
24726 MARBELLA AVE	TPH as Motor Oil	mg/kg	741	95UCL	3.3E+03	--	2E-01	--
24726 MARBELLA AVE	Xylenes, Total	µg/kg	7.033	95UCL	5.6E+05	--	1E-05	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24726 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	4.7	Max	8.3E+04	--	6E-05	--
24726 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1.7	Max	8.5E+04	--	2E-05	--
24726 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.307	95UCL	4.0E+03	1.6E+01	8E-05	2E-08
24726 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.453	95UCL	2.3E+02	--	2E-03	--
24726 RAVENNA AVE	Benzene	µg/kg	0.22	Max	6.7E+04	2.2E+02	3E-06	1E-09
24726 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.282	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24726 RAVENNA AVE	Ethylbenzene	µg/kg	1.2	Max	3.3E+06	4.8E+03	4E-07	3E-10
24726 RAVENNA AVE	Naphthalene	mg/kg	0.159	95UCL	1.5E+02	4.0E+00	1E-03	4E-08
24726 RAVENNA AVE	Pyrene	mg/kg	1.432	95UCL	1.7E+03	--	8E-04	--
24726 RAVENNA AVE	TPH as Diesel	mg/kg	684.2	95UCL	1.3E+03	--	5E-01	--
24726 RAVENNA AVE	TPH as Gasoline	mg/kg	1	Max	7.6E+02	--	1E-03	--
24726 RAVENNA AVE	TPH as Motor Oil	mg/kg	2042	95UCL	3.3E+03	--	6E-01	--
24726 RAVENNA AVE	Xylenes, Total	µg/kg	0.85	Max	5.6E+05	--	2E-06	--
24727 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	9200	Max	8.3E+04	--	1E-01	--
24727 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	850	Max	8.5E+04	--	1E-02	--
24727 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.138	95UCL	4.0E+03	1.6E+01	3E-05	9E-09
24727 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.161	95UCL	2.3E+02	--	7E-04	--
24727 MARBELLA AVE	Benzene	µg/kg	24.28	95UCL	6.7E+04	2.2E+02	4E-04	1E-07
24727 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.262	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24727 MARBELLA AVE	Ethylbenzene	µg/kg	610	Max	3.3E+06	4.8E+03	2E-04	1E-07
24727 MARBELLA AVE	Naphthalene	mg/kg	2.024	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24727 MARBELLA AVE	Pyrene	mg/kg	0.565	95UCL	1.7E+03	--	3E-04	--
24727 MARBELLA AVE	Toluene	µg/kg	0.175	95UCL	4.8E+06	--	4E-08	--
24727 MARBELLA AVE	TPH as Diesel	mg/kg	3363	95UCL	1.3E+03	--	3E+00	--
24727 MARBELLA AVE	TPH as Gasoline	mg/kg	118.3	95UCL	7.6E+02	--	2E-01	--
24727 MARBELLA AVE	TPH as Motor Oil	mg/kg	9837	95UCL	3.3E+03	--	3E+00	--
24727 MARBELLA AVE	Xylenes, Total	µg/kg	2000	Max	5.6E+05	--	4E-03	--
24728 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	710	Max	8.3E+04	--	9E-03	--
24728 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	210	Max	8.5E+04	--	3E-03	--
24728 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.483	95UCL	4.0E+03	1.6E+01	6E-04	2E-07
24728 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.107	95UCL	2.3E+02	--	2E-02	--
24728 NEPTUNE AVE	Benzene	µg/kg	729.1	95UCL	6.7E+04	2.2E+02	1E-02	3E-06
24728 NEPTUNE AVE	Bromomethane	µg/kg	3.9	Max	8.8E+03	--	4E-04	--
24728 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.72	Max	2.3E+02	1.3E+00	3E-03	6E-07
24728 NEPTUNE AVE	Ethylbenzene	µg/kg	6900	Max	3.3E+06	4.8E+03	2E-03	1E-06
24728 NEPTUNE AVE	Naphthalene	mg/kg	1.829	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
24728 NEPTUNE AVE	Pyrene	mg/kg	0.327	95UCL	1.7E+03	--	2E-04	--
24728 NEPTUNE AVE	Toluene	µg/kg	5.181	95UCL	4.8E+06	--	1E-06	--
24728 NEPTUNE AVE	TPH as Diesel	mg/kg	1814	95UCL	1.3E+03	--	1E+00	--
24728 NEPTUNE AVE	TPH as Gasoline	mg/kg	371.1	95UCL	7.6E+02	--	5E-01	--
24728 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2499	95UCL	3.3E+03	--	8E-01	--
24728 NEPTUNE AVE	Xylenes, Total	µg/kg	270	Max	5.6E+05	--	5E-04	--
24728 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.925	95UCL	8.3E+04	--	1E-05	--
24728 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	2.7	Max	8.5E+04	--	3E-05	--
24728 PANAMA AVE	1-Methylnaphthalene	mg/kg	2.6	95UCL	4.0E+03	1.6E+01	7E-04	2E-07
24728 PANAMA AVE	2-Methylnaphthalene	mg/kg	2.776	95UCL	2.3E+02	--	1E-02	--
24728 PANAMA AVE	Benzene	µg/kg	0.252	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24728 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.56	Max	1.2E+03	3.5E+01	5E-04	2E-08
24728 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.586	95UCL	2.3E+02	1.3E+00	3E-03	5E-07
24728 PANAMA AVE	Ethylbenzene	µg/kg	0.37	Max	3.3E+06	4.8E+03	1E-07	8E-11
24728 PANAMA AVE	Naphthalene	mg/kg	0.266	95UCL	1.5E+02	4.0E+00	2E-03	7E-08
24728 PANAMA AVE	Pyrene	mg/kg	3.823	95UCL	1.7E+03	--	2E-03	--
24728 PANAMA AVE	Toluene	µg/kg	0.156	95UCL	4.8E+06	--	3E-08	--
24728 PANAMA AVE	TPH as Diesel	mg/kg	17004	95UCL	1.3E+03	--	1E+01	--
24728 PANAMA AVE	TPH as Gasoline	mg/kg	87.27	95UCL	7.6E+02	--	1E-01	--
24728 PANAMA AVE	TPH as Motor Oil	mg/kg	23480	95UCL	3.3E+03	--	7E+00	--
24728 PANAMA AVE	Xylenes, Total	µg/kg	4.2	Max	5.6E+05	--	8E-06	--
24729 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.22	95UCL	8.3E+04	--	3E-06	--
24729 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.2	Max	4.0E+03	1.6E+01	5E-05	1E-08
24729 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0929	95UCL	2.3E+02	--	4E-04	--
24729 NEPTUNE AVE	Benzene	µg/kg	0.2	Max	6.7E+04	2.2E+02	3E-06	9E-10
24729 NEPTUNE AVE	Bromomethane	µg/kg	2.1	Max	8.8E+03	--	2E-04	--
24729 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.326	95UCL	2.3E+02	1.3E+00	1E-03	3E-07

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24729 NEPTUNE AVE	Naphthalene	mg/kg	0.12	Max	1.5E+02	4.0E+00	8E-04	3E-08
24729 NEPTUNE AVE	Pyrene	mg/kg	0.387	95UCL	1.7E+03	--	2E-04	--
24729 NEPTUNE AVE	Toluene	µg/kg	0.85	95UCL	4.8E+06	--	2E-07	--
24729 NEPTUNE AVE	TPH as Diesel	mg/kg	783.4	95UCL	1.3E+03	--	6E-01	--
24729 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.514	95UCL	7.6E+02	--	7E-04	--
24729 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1434	95UCL	3.3E+03	--	4E-01	--
24729 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.25	Max	8.3E+04	--	3E-06	--
24729 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.18	Max	8.5E+04	--	2E-06	--
24729 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00955	95UCL	4.0E+03	1.6E+01	2E-06	6E-10
24729 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0391	95UCL	2.3E+02	--	2E-04	--
24729 PANAMA AVE	Benzene	µg/kg	0.19	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24729 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.36	Max	2.3E+02	1.3E+00	2E-03	3E-07
24729 PANAMA AVE	Ethylbenzene	µg/kg	0.15	Max	3.3E+06	4.8E+03	5E-08	3E-11
24729 PANAMA AVE	Naphthalene	mg/kg	0.0488	95UCL	1.5E+02	4.0E+00	3E-04	1E-08
24729 PANAMA AVE	Pyrene	mg/kg	0.222	95UCL	1.7E+03	--	1E-04	--
24729 PANAMA AVE	Tetrachloroethene	µg/kg	0.26	Max	8.6E+04	5.5E+02	3E-06	5E-10
24729 PANAMA AVE	Toluene	µg/kg	0.171	95UCL	4.8E+06	--	4E-08	--
24729 PANAMA AVE	TPH as Diesel	mg/kg	435.6	95UCL	1.3E+03	--	3E-01	--
24729 PANAMA AVE	TPH as Gasoline	mg/kg	0.0699	95UCL	7.6E+02	--	9E-05	--
24729 PANAMA AVE	TPH as Motor Oil	mg/kg	988.2	95UCL	3.3E+03	--	3E-01	--
24729 PANAMA AVE	Xylenes, Total	µg/kg	0.42	Max	5.6E+05	--	8E-07	--
24729 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00304	95UCL	2.3E+02	--	1E-05	--
24729 RAVENNA AVE	Benzene	µg/kg	0.204	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24729 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.32	Max	2.3E+02	1.3E+00	1E-03	3E-07
24729 RAVENNA AVE	Naphthalene	mg/kg	0.018	95UCL	1.5E+02	4.0E+00	1E-04	5E-09
24729 RAVENNA AVE	Pyrene	mg/kg	0.00901	95UCL	1.7E+03	--	5E-06	--
24729 RAVENNA AVE	Toluene	µg/kg	0.35	Max	4.8E+06	--	7E-08	--
24729 RAVENNA AVE	TPH as Diesel	mg/kg	89	Max	1.3E+03	--	7E-02	--
24729 RAVENNA AVE	TPH as Gasoline	mg/kg	0.096	Max	7.6E+02	--	1E-04	--
24729 RAVENNA AVE	TPH as Motor Oil	mg/kg	320	Max	3.3E+03	--	1E-01	--
24729 RAVENNA AVE	Xylenes, Total	µg/kg	0.21	Max	5.6E+05	--	4E-07	--
24732 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.282	95UCL	8.3E+04	--	3E-06	--
24732 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.2	Max	8.5E+04	--	2E-06	--
24732 MARBELLA AVE	1-Methylnaphthalene	mg/kg	9	Max	4.0E+03	1.6E+01	2E-03	6E-07
24732 MARBELLA AVE	2-Methylnaphthalene	mg/kg	1.887	95UCL	2.3E+02	--	8E-03	--
24732 MARBELLA AVE	Benzene	µg/kg	0.231	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24732 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.33	95UCL	2.3E+02	1.3E+00	1E-03	3E-07
24732 MARBELLA AVE	Ethylbenzene	µg/kg	0.34	95UCL	3.3E+06	4.8E+03	1E-07	7E-11
24732 MARBELLA AVE	Naphthalene	mg/kg	0.44	95UCL	1.5E+02	4.0E+00	3E-03	1E-07
24732 MARBELLA AVE	Pyrene	mg/kg	0.785	95UCL	1.7E+03	--	5E-04	--
24732 MARBELLA AVE	Toluene	µg/kg	0.345	95UCL	4.8E+06	--	7E-08	--
24732 MARBELLA AVE	TPH as Diesel	mg/kg	2402	95UCL	1.3E+03	--	2E+00	--
24732 MARBELLA AVE	TPH as Gasoline	mg/kg	74	Max	7.6E+02	--	1E-01	--
24732 MARBELLA AVE	TPH as Motor Oil	mg/kg	4096	95UCL	3.3E+03	--	1E+00	--
24732 MARBELLA AVE	Xylenes, Total	µg/kg	0.501	95UCL	5.6E+05	--	9E-07	--
24732 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	6971	95UCL	8.3E+04	--	8E-02	--
24732 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	21000	Max	8.5E+04	--	3E-01	--
24732 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	7.205	95UCL	4.0E+03	1.6E+01	2E-03	5E-07
24732 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	17.1	95UCL	2.3E+02	--	8E-02	--
24732 NEPTUNE AVE	Benzene	µg/kg	4421	95UCL	6.7E+04	2.2E+02	7E-02	2E-05
24732 NEPTUNE AVE	Ethylbenzene	µg/kg	5222	95UCL	3.3E+06	4.8E+03	2E-03	1E-06
24732 NEPTUNE AVE	Naphthalene	mg/kg	8.06	95UCL	1.5E+02	4.0E+00	5E-02	2E-06
24732 NEPTUNE AVE	Pyrene	mg/kg	4.653	95UCL	1.7E+03	--	3E-03	--
24732 NEPTUNE AVE	Toluene	µg/kg	6580	95UCL	4.8E+06	--	1E-03	--
24732 NEPTUNE AVE	TPH as Diesel	mg/kg	5480	95UCL	1.3E+03	--	4E+00	--
24732 NEPTUNE AVE	TPH as Gasoline	mg/kg	805.8	95UCL	7.6E+02	--	1E+00	--
24732 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6425	95UCL	3.3E+03	--	2E+00	--
24732 NEPTUNE AVE	Trichloroethene	µg/kg	300	Max	5.8E+03	1.2E+03	5E-02	3E-07
24732 NEPTUNE AVE	Xylenes, Total	µg/kg	31010	95UCL	5.6E+05	--	6E-02	--
24732 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.26	Max	6.2E+05	4.7E+02	4E-07	6E-10
24732 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.22	Max	8.3E+04	--	3E-06	--
24732 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00806	95UCL	4.0E+03	1.6E+01	2E-06	5E-10
24732 PANAMA AVE	2,4-Dinitrotoluene	mg/kg	0.067	Max	1.2E+02	1.6E+00	6E-04	4E-08

Appendix E
Detailed Risk Calculations

Table E-2
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Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24732 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0426	95UCL	2.3E+02	--	2E-04	--
24732 PANAMA AVE	Benzene	µg/kg	0.223	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24732 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.46	Max	1.2E+03	3.5E+01	4E-04	1E-08
24732 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.256	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24732 PANAMA AVE	Naphthalene	mg/kg	0.0122	95UCL	1.5E+02	4.0E+00	8E-05	3E-09
24732 PANAMA AVE	Pyrene	mg/kg	0.475	95UCL	1.7E+03	--	3E-04	--
24732 PANAMA AVE	Toluene	µg/kg	0.191	95UCL	4.8E+06	--	4E-08	--
24732 PANAMA AVE	TPH as Diesel	mg/kg	539.8	95UCL	1.3E+03	--	4E-01	--
24732 PANAMA AVE	TPH as Gasoline	mg/kg	0.22	Max	7.6E+02	--	3E-04	--
24732 PANAMA AVE	TPH as Motor Oil	mg/kg	901.2	95UCL	3.3E+03	--	3E-01	--
24732 PANAMA AVE	Xylenes, Total	µg/kg	0.41	Max	5.6E+05	--	7E-07	--
24732 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	192.2	95UCL	8.3E+04	--	2E-03	--
24732 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	10.71	95UCL	8.5E+04	--	1E-04	--
24732 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.271	95UCL	4.0E+03	1.6E+01	7E-05	2E-08
24732 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.266	95UCL	2.3E+02	--	1E-03	--
24732 RAVENNA AVE	Benzene	µg/kg	0.228	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24732 RAVENNA AVE	Bromomethane	µg/kg	270	Max	8.8E+03	--	3E-02	--
24732 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.28	Max	2.3E+02	1.3E+00	1E-03	2E-07
24732 RAVENNA AVE	Ethylbenzene	µg/kg	71	Max	3.3E+06	4.8E+03	2E-05	2E-08
24732 RAVENNA AVE	Naphthalene	mg/kg	0.133	95UCL	1.5E+02	4.0E+00	9E-04	3E-08
24732 RAVENNA AVE	Pyrene	mg/kg	0.42	95UCL	1.7E+03	--	3E-04	--
24732 RAVENNA AVE	Toluene	µg/kg	0.25	95UCL	4.8E+06	--	5E-08	--
24732 RAVENNA AVE	TPH as Diesel	mg/kg	1270	95UCL	1.3E+03	--	1E+00	--
24732 RAVENNA AVE	TPH as Gasoline	mg/kg	35.51	95UCL	7.6E+02	--	5E-02	--
24732 RAVENNA AVE	TPH as Motor Oil	mg/kg	2030	95UCL	3.3E+03	--	6E-01	--
24732 RAVENNA AVE	Xylenes, Total	µg/kg	22.59	95UCL	5.6E+05	--	4E-05	--
24733 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.4	Max	8.3E+04	--	5E-06	--
24733 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.095	Max	8.5E+04	--	1E-06	--
24733 MARBELLA AVE	1-Methylnaphthalene	mg/kg	2	Max	4.0E+03	1.6E+01	5E-04	1E-07
24733 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.526	95UCL	2.3E+02	--	2E-03	--
24733 MARBELLA AVE	Benzene	µg/kg	0.184	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24733 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.32	Max	2.3E+02	1.3E+00	1E-03	3E-07
24733 MARBELLA AVE	Cobalt	mg/kg	9.182	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24733 MARBELLA AVE	Ethylbenzene	µg/kg	280	Max	3.3E+06	4.8E+03	9E-05	6E-08
24733 MARBELLA AVE	Naphthalene	mg/kg	1.491	95UCL	1.5E+02	4.0E+00	1E-02	4E-07
24733 MARBELLA AVE	Pyrene	mg/kg	0.138	95UCL	1.7E+03	--	8E-05	--
24733 MARBELLA AVE	Toluene	µg/kg	0.174	95UCL	4.8E+06	--	4E-08	--
24733 MARBELLA AVE	TPH as Diesel	mg/kg	749.8	95UCL	1.3E+03	--	6E-01	--
24733 MARBELLA AVE	TPH as Gasoline	mg/kg	166	95UCL	7.6E+02	--	2E-01	--
24733 MARBELLA AVE	TPH as Motor Oil	mg/kg	1054	95UCL	3.3E+03	--	3E-01	--
24733 MARBELLA AVE	Xylenes, Total	µg/kg	0.25	Max	5.6E+05	--	5E-07	--
24733 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.12	Max	8.3E+04	--	2E-06	--
24733 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.061	95UCL	4.0E+03	1.6E+01	2E-05	4E-09
24733 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.165	95UCL	2.3E+02	--	7E-04	--
24733 PANAMA AVE	Benzene	µg/kg	0.262	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24733 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.59	Max	1.2E+03	3.5E+01	5E-04	2E-08
24733 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.6	Max	2.3E+02	1.3E+00	3E-03	5E-07
24733 PANAMA AVE	Naphthalene	mg/kg	0.118	95UCL	1.5E+02	4.0E+00	8E-04	3E-08
24733 PANAMA AVE	Pyrene	mg/kg	0.972	95UCL	1.7E+03	--	6E-04	--
24733 PANAMA AVE	Toluene	µg/kg	1.147	95UCL	4.8E+06	--	2E-07	--
24733 PANAMA AVE	TPH as Diesel	mg/kg	961.6	95UCL	1.3E+03	--	7E-01	--
24733 PANAMA AVE	TPH as Gasoline	mg/kg	0.0717	95UCL	7.6E+02	--	9E-05	--
24733 PANAMA AVE	TPH as Motor Oil	mg/kg	1993	95UCL	3.3E+03	--	6E-01	--
24733 PANAMA AVE	Xylenes, Total	µg/kg	0.49	Max	5.6E+05	--	9E-07	--
24733 RAVENNA AVE	1,2,3-Trichloropropane	µg/kg	0.75	Max	2.4E+03	2.1E+01	3E-04	4E-08
24733 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.389	95UCL	8.3E+04	--	5E-06	--
24733 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.304	95UCL	8.5E+04	--	4E-06	--
24733 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.208	95UCL	4.0E+03	1.6E+01	5E-05	1E-08
24733 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.203	95UCL	2.3E+02	--	9E-04	--
24733 RAVENNA AVE	Benzene	µg/kg	0.391	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24733 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.98	Max	1.2E+03	3.5E+01	8E-04	3E-08
24733 RAVENNA AVE	Bromomethane	µg/kg	1.17	95UCL	8.8E+03	--	1E-04	--
24733 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	2.3E+02	1.3E+00	2E-03	3E-07

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24733 RAVENNA AVE	Ethylbenzene	µg/kg	0.83	Max	3.3E+06	4.8E+03	3E-07	2E-10
24733 RAVENNA AVE	Naphthalene	mg/kg	0.0367	95UCL	1.5E+02	4.0E+00	2E-04	9E-09
24733 RAVENNA AVE	Pyrene	mg/kg	0.109	95UCL	1.7E+03	--	6E-05	--
24733 RAVENNA AVE	Tetrachloroethene	µg/kg	0.29	Max	8.6E+04	5.5E+02	3E-06	5E-10
24733 RAVENNA AVE	Thallium	mg/kg	0.28	Max	7.8E-01	--	4E-01	--
24733 RAVENNA AVE	Toluene	µg/kg	2.625	95UCL	4.8E+06	--	6E-07	--
24733 RAVENNA AVE	TPH as Diesel	mg/kg	687.7	95UCL	1.3E+03	--	5E-01	--
24733 RAVENNA AVE	TPH as Gasoline	mg/kg	0.231	95UCL	7.6E+02	--	3E-04	--
24733 RAVENNA AVE	TPH as Motor Oil	mg/kg	1140	95UCL	3.3E+03	--	4E-01	--
24733 RAVENNA AVE	Trichloroethene	µg/kg	0.18	Max	5.8E+03	1.2E+03	3E-05	2E-10
24733 RAVENNA AVE	Xylenes, Total	µg/kg	0.406	95UCL	5.6E+05	--	7E-07	--
24735 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1.049	95UCL	8.3E+04	--	1E-05	--
24735 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1.2	Max	8.5E+04	--	1E-05	--
24735 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0225	95UCL	4.0E+03	1.6E+01	6E-06	1E-09
24735 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0542	95UCL	2.3E+02	--	2E-04	--
24735 NEPTUNE AVE	Benzene	µg/kg	0.209	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24735 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.39	Max	2.3E+02	1.3E+00	2E-03	3E-07
24735 NEPTUNE AVE	Ethylbenzene	µg/kg	2.1	Max	3.3E+06	4.8E+03	6E-07	4E-10
24735 NEPTUNE AVE	Naphthalene	mg/kg	0.028	95UCL	1.5E+02	4.0E+00	2E-04	7E-09
24735 NEPTUNE AVE	Pyrene	mg/kg	0.393	95UCL	1.7E+03	--	2E-04	--
24735 NEPTUNE AVE	Toluene	µg/kg	0.645	95UCL	4.8E+06	--	1E-07	--
24735 NEPTUNE AVE	TPH as Diesel	mg/kg	2151	95UCL	1.3E+03	--	2E+00	--
24735 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.154	95UCL	7.6E+02	--	2E-04	--
24735 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4676	95UCL	3.3E+03	--	1E+00	--
24735 NEPTUNE AVE	Xylenes, Total	µg/kg	0.661	95UCL	5.6E+05	--	1E-06	--
24736 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.32	Max	8.3E+04	--	4E-06	--
24736 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.022	Max	4.0E+03	1.6E+01	6E-06	1E-09
24736 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0102	95UCL	2.3E+02	--	4E-05	--
24736 MARBELLA AVE	Benzene	µg/kg	0.203	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24736 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.255	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24736 MARBELLA AVE	Cobalt	mg/kg	9.75	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24736 MARBELLA AVE	Naphthalene	mg/kg	0.00409	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
24736 MARBELLA AVE	Pyrene	mg/kg	0.103	95UCL	1.7E+03	--	6E-05	--
24736 MARBELLA AVE	Toluene	µg/kg	0.301	95UCL	4.8E+06	--	6E-08	--
24736 MARBELLA AVE	TPH as Diesel	mg/kg	176.1	95UCL	1.3E+03	--	1E-01	--
24736 MARBELLA AVE	TPH as Gasoline	mg/kg	0.127	95UCL	7.6E+02	--	2E-04	--
24736 MARBELLA AVE	TPH as Motor Oil	mg/kg	564.5	95UCL	3.3E+03	--	2E-01	--
24736 MARBELLA AVE	Xylenes, Total	µg/kg	0.24	Max	5.6E+05	--	4E-07	--
24736 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1664	95UCL	8.3E+04	--	2E-02	--
24736 RAVENNA AVE	1,2-Dichloropropane	µg/kg	2.8	Max	1.5E+04	8.3E+02	2E-04	3E-09
24736 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	380.3	95UCL	8.5E+04	--	5E-03	--
24736 RAVENNA AVE	1-Methylnaphthalene	mg/kg	6.443	95UCL	4.0E+03	1.6E+01	2E-03	4E-07
24736 RAVENNA AVE	2-Methylnaphthalene	mg/kg	9.286	95UCL	2.3E+02	--	4E-02	--
24736 RAVENNA AVE	Benzene	µg/kg	105.5	95UCL	6.7E+04	2.2E+02	2E-03	5E-07
24736 RAVENNA AVE	Ethylbenzene	µg/kg	537.6	95UCL	3.3E+06	4.8E+03	2E-04	1E-07
24736 RAVENNA AVE	Naphthalene	mg/kg	4.579	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24736 RAVENNA AVE	Pyrene	mg/kg	0.978	95UCL	1.7E+03	--	6E-04	--
24736 RAVENNA AVE	Toluene	µg/kg	18.34	95UCL	4.8E+06	--	4E-06	--
24736 RAVENNA AVE	TPH as Diesel	mg/kg	4379	95UCL	1.3E+03	--	3E+00	--
24736 RAVENNA AVE	TPH as Gasoline	mg/kg	249.5	95UCL	7.6E+02	--	3E-01	--
24736 RAVENNA AVE	TPH as Motor Oil	mg/kg	4809	95UCL	3.3E+03	--	2E+00	--
24736 RAVENNA AVE	Xylenes, Total	µg/kg	539.3	95UCL	5.6E+05	--	1E-03	--
24737 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	410	Max	8.3E+04	--	5E-03	--
24737 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	67	Max	8.5E+04	--	8E-04	--
24737 MARBELLA AVE	1-Methylnaphthalene	mg/kg	3.204	95UCL	4.0E+03	1.6E+01	8E-04	2E-07
24737 MARBELLA AVE	2-Methylnaphthalene	mg/kg	9.37	95UCL	2.3E+02	--	4E-02	--
24737 MARBELLA AVE	Benzene	µg/kg	8.269	95UCL	6.7E+04	2.2E+02	1E-04	4E-08
24737 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	1.2E+03	3.5E+01	1E-04	5E-09
24737 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.455	95UCL	2.3E+02	1.3E+00	2E-03	4E-07
24737 MARBELLA AVE	Ethylbenzene	µg/kg	250	Max	3.3E+06	4.8E+03	8E-05	5E-08
24737 MARBELLA AVE	Naphthalene	mg/kg	3.273	95UCL	1.5E+02	4.0E+00	2E-02	8E-07
24737 MARBELLA AVE	Pyrene	mg/kg	0.931	95UCL	1.7E+03	--	5E-04	--
24737 MARBELLA AVE	Tetrachloroethene	µg/kg	0.42	Max	8.6E+04	5.5E+02	5E-06	8E-10

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24737 MARBELLA AVE	Toluene	µg/kg	0.303	95UCL	4.8E+06	--	6E-08	--
24737 MARBELLA AVE	TPH as Diesel	mg/kg	5254	95UCL	1.3E+03	--	4E+00	--
24737 MARBELLA AVE	TPH as Gasoline	mg/kg	224.9	95UCL	7.6E+02	--	3E-01	--
24737 MARBELLA AVE	TPH as Motor Oil	mg/kg	6413	95UCL	3.3E+03	--	2E+00	--
24737 MARBELLA AVE	Xylenes, Total	µg/kg	210	Max	5.6E+05	--	4E-04	--
24738 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	13584	95UCL	8.3E+04	--	2E-01	--
24738 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	2825	95UCL	8.5E+04	--	3E-02	--
24738 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	7.894	95UCL	4.0E+03	1.6E+01	2E-03	5E-07
24738 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	24.08	95UCL	2.3E+02	--	1E-01	--
24738 NEPTUNE AVE	Benzene	µg/kg	4586	95UCL	6.7E+04	2.2E+02	7E-02	2E-05
24738 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.162	95UCL	2.3E+02	1.3E+00	7E-04	1E-07
24738 NEPTUNE AVE	Ethylbenzene	µg/kg	3450	95UCL	3.3E+06	4.8E+03	1E-03	7E-07
24738 NEPTUNE AVE	Naphthalene	mg/kg	9.388	95UCL	1.5E+02	4.0E+00	6E-02	2E-06
24738 NEPTUNE AVE	Pyrene	mg/kg	2.02	95UCL	1.7E+03	--	1E-03	--
24738 NEPTUNE AVE	Tetrachloroethene	µg/kg	37	Max	8.6E+04	5.5E+02	4E-04	7E-08
24738 NEPTUNE AVE	Toluene	µg/kg	9616	95UCL	4.8E+06	--	2E-03	--
24738 NEPTUNE AVE	TPH as Diesel	mg/kg	7281	95UCL	1.3E+03	--	6E+00	--
24738 NEPTUNE AVE	TPH as Gasoline	mg/kg	1137	95UCL	7.6E+02	--	2E+00	--
24738 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7619	95UCL	3.3E+03	--	2E+00	--
24738 NEPTUNE AVE	Xylenes, Total	µg/kg	28569	95UCL	5.6E+05	--	5E-02	--
24738 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.36	Max	6.2E+05	4.7E+02	6E-07	8E-10
24738 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.435	95UCL	8.3E+04	--	5E-06	--
24738 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.26	Max	8.5E+04	--	3E-06	--
24738 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.624	95UCL	4.0E+03	1.6E+01	2E-04	4E-08
24738 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.307	95UCL	2.3E+02	--	1E-03	--
24738 PANAMA AVE	Benzene	µg/kg	0.196	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24738 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.43	Max	1.2E+03	3.5E+01	4E-04	1E-08
24738 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.3	Max	2.3E+02	1.3E+00	1E-03	2E-07
24738 PANAMA AVE	Ethylbenzene	µg/kg	0.481	95UCL	3.3E+06	4.8E+03	2E-07	1E-10
24738 PANAMA AVE	Naphthalene	mg/kg	0.0626	95UCL	1.5E+02	4.0E+00	4E-04	2E-08
24738 PANAMA AVE	Pyrene	mg/kg	5.066	95UCL	1.7E+03	--	3E-03	--
24738 PANAMA AVE	Toluene	µg/kg	0.323	95UCL	4.8E+06	--	7E-08	--
24738 PANAMA AVE	TPH as Diesel	mg/kg	2456	95UCL	1.3E+03	--	2E+00	--
24738 PANAMA AVE	TPH as Gasoline	mg/kg	89	Max	7.6E+02	--	1E-01	--
24738 PANAMA AVE	TPH as Motor Oil	mg/kg	4414	95UCL	3.3E+03	--	1E+00	--
24738 PANAMA AVE	Trichloroethene	µg/kg	0.25	Max	5.8E+03	1.2E+03	4E-05	2E-10
24738 PANAMA AVE	Xylenes, Total	µg/kg	0.884	95UCL	5.6E+05	--	2E-06	--
24739 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.477	95UCL	8.3E+04	--	6E-06	--
24739 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.18	Max	8.5E+04	--	2E-06	--
24739 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0485	95UCL	4.0E+03	1.6E+01	1E-05	3E-09
24739 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0659	95UCL	2.3E+02	--	3E-04	--
24739 NEPTUNE AVE	Benzene	µg/kg	0.166	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
24739 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.42	Max	1.2E+03	3.5E+01	3E-04	1E-08
24739 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.52	Max	2.3E+02	1.3E+00	2E-03	4E-07
24739 NEPTUNE AVE	Naphthalene	mg/kg	0.0084	95UCL	1.5E+02	4.0E+00	6E-05	2E-09
24739 NEPTUNE AVE	Pyrene	mg/kg	0.534	95UCL	1.7E+03	--	3E-04	--
24739 NEPTUNE AVE	Toluene	µg/kg	0.188	95UCL	4.8E+06	--	4E-08	--
24739 NEPTUNE AVE	TPH as Diesel	mg/kg	1854	95UCL	1.3E+03	--	1E+00	--
24739 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.0799	95UCL	7.6E+02	--	1E-04	--
24739 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4178	95UCL	3.3E+03	--	1E+00	--
24739 NEPTUNE AVE	Trichloroethene	µg/kg	0.18	Max	5.8E+03	1.2E+03	3E-05	2E-10
24739 NEPTUNE AVE	Xylenes, Total	µg/kg	0.222	95UCL	5.6E+05	--	4E-07	--
24739 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	8766	95UCL	8.3E+04	--	1E-01	--
24739 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	901.9	95UCL	8.5E+04	--	1E-02	--
24739 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.5	Max	3.6E+06	2.8E+03	1E-07	2E-10
24739 PANAMA AVE	1-Methylnaphthalene	mg/kg	6.731	95UCL	4.0E+03	1.6E+01	2E-03	4E-07
24739 PANAMA AVE	2-Methylnaphthalene	mg/kg	11	95UCL	2.3E+02	--	5E-02	--
24739 PANAMA AVE	Benzene	µg/kg	210.1	95UCL	6.7E+04	2.2E+02	3E-03	1E-06
24739 PANAMA AVE	Bromomethane	µg/kg	530	Max	8.8E+03	--	6E-02	--
24739 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.24	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24739 PANAMA AVE	Ethylbenzene	µg/kg	830.3	95UCL	3.3E+06	4.8E+03	3E-04	2E-07
24739 PANAMA AVE	Methylene Chloride	µg/kg	5.379	95UCL	3.6E+05	5.3E+03	2E-05	1E-09
24739 PANAMA AVE	Naphthalene	mg/kg	5.859	95UCL	1.5E+02	4.0E+00	4E-02	2E-06

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24739 PANAMA AVE	Pyrene	mg/kg	1.009	95UCL	1.7E+03	--	6E-04	--
24739 PANAMA AVE	Toluene	µg/kg	39.67	95UCL	4.8E+06	--	8E-06	--
24739 PANAMA AVE	TPH as Diesel	mg/kg	5427	95UCL	1.3E+03	--	4E+00	--
24739 PANAMA AVE	TPH as Gasoline	mg/kg	638.8	95UCL	7.6E+02	--	8E-01	--
24739 PANAMA AVE	TPH as Motor Oil	mg/kg	12972	95UCL	3.3E+03	--	4E+00	--
24739 PANAMA AVE	Xylenes, Total	µg/kg	2336	95UCL	5.6E+05	--	4E-03	--
24739 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	7238	95UCL	8.3E+04	--	9E-02	--
24739 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1421	95UCL	8.5E+04	--	2E-02	--
24739 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.36	Max	3.6E+06	2.8E+03	1E-07	1E-10
24739 RAVENNA AVE	1-Methylnaphthalene	mg/kg	17.39	95UCL	4.0E+03	1.6E+01	4E-03	1E-06
24739 RAVENNA AVE	2-Methylnaphthalene	mg/kg	40.99	95UCL	2.3E+02	--	2E-01	--
24739 RAVENNA AVE	Benzene	µg/kg	2742	95UCL	6.7E+04	2.2E+02	4E-02	1E-05
24739 RAVENNA AVE	Ethylbenzene	µg/kg	3486	95UCL	3.3E+06	4.8E+03	1E-03	7E-07
24739 RAVENNA AVE	Naphthalene	mg/kg	16.31	95UCL	1.5E+02	4.0E+00	1E-01	4E-06
24739 RAVENNA AVE	Pyrene	mg/kg	4.607	95UCL	1.7E+03	--	3E-03	--
24739 RAVENNA AVE	Toluene	µg/kg	2329	95UCL	4.8E+06	--	5E-04	--
24739 RAVENNA AVE	TPH as Diesel	mg/kg	13026	95UCL	1.3E+03	--	1E+01	--
24739 RAVENNA AVE	TPH as Gasoline	mg/kg	1309	95UCL	7.6E+02	--	2E+00	--
24739 RAVENNA AVE	TPH as Motor Oil	mg/kg	13882	95UCL	3.3E+03	--	4E+00	--
24739 RAVENNA AVE	Xylenes, Total	µg/kg	10321	95UCL	5.6E+05	--	2E-02	--
24740 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.668	95UCL	4.0E+03	1.6E+01	2E-04	4E-08
24740 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.235	95UCL	2.3E+02	--	1E-03	--
24740 MARBELLA AVE	Benzene	µg/kg	0.229	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24740 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.3	Max	1.2E+03	3.5E+01	3E-04	9E-09
24740 MARBELLA AVE	Bromomethane	µg/kg	1.744	95UCL	8.8E+03	--	2E-04	--
24740 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.282	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24740 MARBELLA AVE	Ethylbenzene	µg/kg	0.18	Max	3.3E+06	4.8E+03	6E-08	4E-11
24740 MARBELLA AVE	Naphthalene	mg/kg	0.0385	95UCL	1.5E+02	4.0E+00	3E-04	1E-08
24740 MARBELLA AVE	Pyrene	mg/kg	0.981	95UCL	1.7E+03	--	6E-04	--
24740 MARBELLA AVE	Toluene	µg/kg	0.287	95UCL	4.8E+06	--	6E-08	--
24740 MARBELLA AVE	TPH as Diesel	mg/kg	1863	95UCL	1.3E+03	--	1E+00	--
24740 MARBELLA AVE	TPH as Gasoline	mg/kg	108.3	95UCL	7.6E+02	--	1E-01	--
24740 MARBELLA AVE	TPH as Motor Oil	mg/kg	2499	95UCL	3.3E+03	--	8E-01	--
24740 MARBELLA AVE	Xylenes, Total	µg/kg	0.223	95UCL	5.6E+05	--	4E-07	--
24741 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0072	Max	4.0E+03	1.6E+01	2E-06	5E-10
24741 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0127	95UCL	2.3E+02	--	6E-05	--
24741 MARBELLA AVE	Bromomethane	µg/kg	2.1	Max	8.8E+03	--	2E-04	--
24741 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.56	Max	2.3E+02	1.3E+00	2E-03	4E-07
24741 MARBELLA AVE	Naphthalene	mg/kg	0.00594	95UCL	1.5E+02	4.0E+00	4E-05	2E-09
24741 MARBELLA AVE	Pyrene	mg/kg	0.0305	95UCL	1.7E+03	--	2E-05	--
24741 MARBELLA AVE	Tetrachloroethene	µg/kg	0.46	Max	8.6E+04	5.5E+02	5E-06	8E-10
24741 MARBELLA AVE	Toluene	µg/kg	0.262	95UCL	4.8E+06	--	6E-08	--
24741 MARBELLA AVE	TPH as Diesel	mg/kg	612.9	95UCL	1.3E+03	--	5E-01	--
24741 MARBELLA AVE	TPH as Gasoline	mg/kg	0.21	Max	7.6E+02	--	3E-04	--
24741 MARBELLA AVE	TPH as Motor Oil	mg/kg	1716	95UCL	3.3E+03	--	5E-01	--
24743 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2135	95UCL	8.3E+04	--	3E-02	--
24743 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	328.1	95UCL	8.5E+04	--	4E-03	--
24743 RAVENNA AVE	1-Methylnaphthalene	mg/kg	7.807	95UCL	4.0E+03	1.6E+01	2E-03	5E-07
24743 RAVENNA AVE	2-Methylnaphthalene	mg/kg	11.47	95UCL	2.3E+02	--	5E-02	--
24743 RAVENNA AVE	Benzene	µg/kg	257.6	95UCL	6.7E+04	2.2E+02	4E-03	1E-06
24743 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	6.9	Max	1.2E+03	3.5E+01	6E-03	2E-07
24743 RAVENNA AVE	Bromomethane	µg/kg	1.2	Max	8.8E+03	--	1E-04	--
24743 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.555	95UCL	2.3E+02	1.3E+00	2E-03	4E-07
24743 RAVENNA AVE	Ethylbenzene	µg/kg	277.1	95UCL	3.3E+06	4.8E+03	9E-05	6E-08
24743 RAVENNA AVE	Naphthalene	mg/kg	4.852	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24743 RAVENNA AVE	Pyrene	mg/kg	2.09	95UCL	1.7E+03	--	1E-03	--
24743 RAVENNA AVE	Toluene	µg/kg	792.7	95UCL	4.8E+06	--	2E-04	--
24743 RAVENNA AVE	TPH as Diesel	mg/kg	7847	95UCL	1.3E+03	--	6E+00	--
24743 RAVENNA AVE	TPH as Gasoline	mg/kg	167.6	95UCL	7.6E+02	--	2E-01	--
24743 RAVENNA AVE	TPH as Motor Oil	mg/kg	12402	95UCL	3.3E+03	--	4E+00	--
24743 RAVENNA AVE	Xylenes, Total	µg/kg	2155	95UCL	5.6E+05	--	4E-03	--
24744 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.31	Max	8.3E+04	--	4E-06	--
24744 MARBELLA AVE	1-Methylnaphthalene	mg/kg	1.368	95UCL	4.0E+03	1.6E+01	3E-04	9E-08

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24744 MARBELLA AVE	2-Methylnaphthalene	mg/kg	1.149	95UCL	2.3E+02	--	5E-03	--
24744 MARBELLA AVE	Benzene	µg/kg	0.22	Max	6.7E+04	2.2E+02	3E-06	1E-09
24744 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.25	Max	1.2E+03	3.5E+01	2E-04	7E-09
24744 MARBELLA AVE	Bromomethane	µg/kg	2.5	Max	8.8E+03	--	3E-04	--
24744 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.37	Max	2.3E+02	1.3E+00	2E-03	3E-07
24744 MARBELLA AVE	Naphthalene	mg/kg	0.145	95UCL	1.5E+02	4.0E+00	1E-03	4E-08
24744 MARBELLA AVE	Pyrene	mg/kg	0.785	95UCL	1.7E+03	--	5E-04	--
24744 MARBELLA AVE	Tetrachloroethene	µg/kg	0.6	Max	8.6E+04	5.5E+02	7E-06	1E-09
24744 MARBELLA AVE	Toluene	µg/kg	0.15	Max	4.8E+06	--	3E-08	--
24744 MARBELLA AVE	TPH as Diesel	mg/kg	5211	95UCL	1.3E+03	--	4E+00	--
24744 MARBELLA AVE	TPH as Gasoline	mg/kg	1.1	Max	7.6E+02	--	1E-03	--
24744 MARBELLA AVE	TPH as Motor Oil	mg/kg	9529	95UCL	3.3E+03	--	3E+00	--
24744 MARBELLA AVE	Trichloroethene	µg/kg	0.21	Max	5.8E+03	1.2E+03	4E-05	2E-10
24748 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	903.4	95UCL	8.3E+04	--	1E-02	--
24748 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	23.54	95UCL	8.5E+04	--	3E-04	--
24748 RAVENNA AVE	1-Methylnaphthalene	mg/kg	8.64	95UCL	4.0E+03	1.6E+01	2E-03	6E-07
24748 RAVENNA AVE	2-Methylnaphthalene	mg/kg	21.29	95UCL	2.3E+02	--	9E-02	--
24748 RAVENNA AVE	Benzene	µg/kg	49.34	95UCL	6.7E+04	2.2E+02	7E-04	2E-07
24748 RAVENNA AVE	Bromomethane	µg/kg	1.6	Max	8.8E+03	--	2E-04	--
24748 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.3E+02	1.3E+00	1E-03	3E-07
24748 RAVENNA AVE	Ethylbenzene	µg/kg	1869	95UCL	3.3E+06	4.8E+03	6E-04	4E-07
24748 RAVENNA AVE	Naphthalene	mg/kg	5.586	95UCL	1.5E+02	4.0E+00	4E-02	1E-06
24748 RAVENNA AVE	Pyrene	mg/kg	1.657	95UCL	1.7E+03	--	1E-03	--
24748 RAVENNA AVE	Toluene	µg/kg	0.681	95UCL	4.8E+06	--	1E-07	--
24748 RAVENNA AVE	TPH as Diesel	mg/kg	5023	95UCL	1.3E+03	--	4E+00	--
24748 RAVENNA AVE	TPH as Gasoline	mg/kg	496.8	95UCL	7.6E+02	--	7E-01	--
24748 RAVENNA AVE	TPH as Motor Oil	mg/kg	5202	95UCL	3.3E+03	--	2E+00	--
24748 RAVENNA AVE	Xylenes, Total	µg/kg	196.9	95UCL	5.6E+05	--	4E-04	--
24749 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	429.8	95UCL	8.3E+04	--	5E-03	--
24749 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	63.94	95UCL	8.5E+04	--	8E-04	--
24749 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.498	95UCL	4.0E+03	1.6E+01	6E-04	2E-07
24749 RAVENNA AVE	2-Methylnaphthalene	mg/kg	4.562	95UCL	2.3E+02	--	2E-02	--
24749 RAVENNA AVE	Benzene	µg/kg	56.25	95UCL	6.7E+04	2.2E+02	8E-04	3E-07
24749 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.5	Max	1.2E+03	3.5E+01	1E-03	4E-08
24749 RAVENNA AVE	Ethylbenzene	µg/kg	208.1	95UCL	3.3E+06	4.8E+03	6E-05	4E-08
24749 RAVENNA AVE	Naphthalene	mg/kg	0.994	95UCL	1.5E+02	4.0E+00	7E-03	3E-07
24749 RAVENNA AVE	Pyrene	mg/kg	1.736	95UCL	1.7E+03	--	1E-03	--
24749 RAVENNA AVE	Toluene	µg/kg	0.536	95UCL	4.8E+06	--	1E-07	--
24749 RAVENNA AVE	TPH as Diesel	mg/kg	4670	95UCL	1.3E+03	--	4E+00	--
24749 RAVENNA AVE	TPH as Gasoline	mg/kg	136.5	95UCL	7.6E+02	--	2E-01	--
24749 RAVENNA AVE	TPH as Motor Oil	mg/kg	6961	95UCL	3.3E+03	--	2E+00	--
24749 RAVENNA AVE	Xylenes, Total	µg/kg	96.17	95UCL	5.6E+05	--	2E-04	--
24752 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	471.2	95UCL	8.3E+04	--	6E-03	--
24752 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	41.96	95UCL	8.5E+04	--	5E-04	--
24752 RAVENNA AVE	1-Methylnaphthalene	mg/kg	7.163	95UCL	4.0E+03	1.6E+01	2E-03	5E-07
24752 RAVENNA AVE	2-Methylnaphthalene	mg/kg	16.18	95UCL	2.3E+02	--	7E-02	--
24752 RAVENNA AVE	Benzene	µg/kg	7.815	95UCL	6.7E+04	2.2E+02	1E-04	4E-08
24752 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.63	Max	1.2E+03	3.5E+01	5E-04	2E-08
24752 RAVENNA AVE	Bromomethane	µg/kg	340	Max	8.8E+03	--	4E-02	--
24752 RAVENNA AVE	Ethylbenzene	µg/kg	95.7	95UCL	3.3E+06	4.8E+03	3E-05	2E-08
24752 RAVENNA AVE	Naphthalene	mg/kg	6.239	95UCL	1.5E+02	4.0E+00	4E-02	2E-06
24752 RAVENNA AVE	Pyrene	mg/kg	1.152	95UCL	1.7E+03	--	7E-04	--
24752 RAVENNA AVE	Toluene	µg/kg	5.331	95UCL	4.8E+06	--	1E-06	--
24752 RAVENNA AVE	TPH as Diesel	mg/kg	4756	95UCL	1.3E+03	--	4E+00	--
24752 RAVENNA AVE	TPH as Gasoline	mg/kg	132	95UCL	7.6E+02	--	2E-01	--
24752 RAVENNA AVE	TPH as Motor Oil	mg/kg	5195	95UCL	3.3E+03	--	2E+00	--
24752 RAVENNA AVE	Xylenes, Total	µg/kg	130	95UCL	5.6E+05	--	2E-04	--
24802 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2.348	95UCL	8.3E+04	--	3E-05	--
24802 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	11	Max	8.5E+04	--	1E-04	--
24802 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.181	95UCL	4.0E+03	1.6E+01	5E-05	1E-08
24802 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.165	95UCL	2.3E+02	--	7E-04	--
24802 PANAMA AVE	Benzene	µg/kg	0.219	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24802 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.64	Max	1.2E+03	3.5E+01	5E-04	2E-08

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24802 PANAMA AVE	Bromomethane	µg/kg	160	Max	8.8E+03	--	2E-02	--
24802 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.233	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24802 PANAMA AVE	Ethylbenzene	µg/kg	0.19	Max	3.3E+06	4.8E+03	6E-08	4E-11
24802 PANAMA AVE	Naphthalene	mg/kg	0.0443	95UCL	1.5E+02	4.0E+00	3E-04	1E-08
24802 PANAMA AVE	Pyrene	mg/kg	0.48	95UCL	1.7E+03	--	3E-04	--
24802 PANAMA AVE	Toluene	µg/kg	2.564	95UCL	4.8E+06	--	5E-07	--
24802 PANAMA AVE	TPH as Diesel	mg/kg	1291	95UCL	1.3E+03	--	1E+00	--
24802 PANAMA AVE	TPH as Gasoline	mg/kg	57.34	95UCL	7.6E+02	--	8E-02	--
24802 PANAMA AVE	TPH as Motor Oil	mg/kg	2362	95UCL	3.3E+03	--	7E-01	--
24802 PANAMA AVE	Trichloroethene	µg/kg	0.36	Max	5.8E+03	1.2E+03	6E-05	3E-10
24802 PANAMA AVE	Xylenes, Total	µg/kg	2.904	95UCL	5.6E+05	--	5E-06	--
24803 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.27	95UCL	8.3E+04	--	3E-06	--
24803 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.092	Max	4.0E+03	1.6E+01	2E-05	6E-09
24803 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.048	95UCL	2.3E+02	--	2E-04	--
24803 NEPTUNE AVE	Benzene	µg/kg	0.244	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24803 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.33	Max	2.3E+02	1.3E+00	1E-03	3E-07
24803 NEPTUNE AVE	Naphthalene	mg/kg	0.00495	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
24803 NEPTUNE AVE	Pyrene	mg/kg	0.132	95UCL	1.7E+03	--	8E-05	--
24803 NEPTUNE AVE	Toluene	µg/kg	0.319	95UCL	4.8E+06	--	7E-08	--
24803 NEPTUNE AVE	TPH as Diesel	mg/kg	1603	95UCL	1.3E+03	--	1E+00	--
24803 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.22	Max	7.6E+02	--	3E-04	--
24803 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3642	95UCL	3.3E+03	--	1E+00	--
24803 NEPTUNE AVE	Xylenes, Total	µg/kg	0.58	Max	5.6E+05	--	1E-06	--
24803 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	3908	95UCL	8.3E+04	--	5E-02	--
24803 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	980	Max	8.5E+04	--	1E-02	--
24803 PANAMA AVE	1-Methylnaphthalene	mg/kg	12.94	95UCL	4.0E+03	1.6E+01	3E-03	8E-07
24803 PANAMA AVE	2-Methylnaphthalene	mg/kg	35	95UCL	2.3E+02	--	2E-01	--
24803 PANAMA AVE	Benzene	µg/kg	478.2	95UCL	6.7E+04	2.2E+02	7E-03	2E-06
24803 PANAMA AVE	Ethylbenzene	µg/kg	3300	Max	3.3E+06	4.8E+03	1E-03	7E-07
24803 PANAMA AVE	Naphthalene	mg/kg	7.139	95UCL	1.5E+02	4.0E+00	5E-02	2E-06
24803 PANAMA AVE	Pyrene	mg/kg	1.342	95UCL	1.7E+03	--	8E-04	--
24803 PANAMA AVE	Toluene	µg/kg	14.28	95UCL	4.8E+06	--	3E-06	--
24803 PANAMA AVE	TPH as Diesel	mg/kg	3071	95UCL	1.3E+03	--	2E+00	--
24803 PANAMA AVE	TPH as Gasoline	mg/kg	272.9	95UCL	7.6E+02	--	4E-01	--
24803 PANAMA AVE	TPH as Motor Oil	mg/kg	3700	95UCL	3.3E+03	--	1E+00	--
24803 PANAMA AVE	Xylenes, Total	µg/kg	1507	95UCL	5.6E+05	--	3E-03	--
24809 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.249	95UCL	8.3E+04	--	3E-06	--
24809 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.12	Max	4.0E+03	1.6E+01	3E-05	8E-09
24809 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0861	95UCL	2.3E+02	--	4E-04	--
24809 NEPTUNE AVE	Benzene	µg/kg	0.132	95UCL	6.7E+04	2.2E+02	2E-06	6E-10
24809 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.747	95UCL	1.2E+03	3.5E+01	1E-03	5E-08
24809 NEPTUNE AVE	Bromomethane	µg/kg	5.1	Max	8.8E+03	--	6E-04	--
24809 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.39	Max	2.3E+02	1.3E+00	2E-03	3E-07
24809 NEPTUNE AVE	Ethylbenzene	µg/kg	0.14	Max	3.3E+06	4.8E+03	4E-08	3E-11
24809 NEPTUNE AVE	Naphthalene	mg/kg	0.00984	95UCL	1.5E+02	4.0E+00	7E-05	3E-09
24809 NEPTUNE AVE	Pyrene	mg/kg	0.45	95UCL	1.7E+03	--	3E-04	--
24809 NEPTUNE AVE	Toluene	µg/kg	0.301	95UCL	4.8E+06	--	6E-08	--
24809 NEPTUNE AVE	TPH as Diesel	mg/kg	1105	95UCL	1.3E+03	--	9E-01	--
24809 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.145	95UCL	7.6E+02	--	2E-04	--
24809 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2809	95UCL	3.3E+03	--	9E-01	--
24809 NEPTUNE AVE	Xylenes, Total	µg/kg	0.21	Max	5.6E+05	--	4E-07	--
24809 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2619	95UCL	8.3E+04	--	3E-02	--
24809 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	417.6	95UCL	8.5E+04	--	5E-03	--
24809 PANAMA AVE	1-Methylnaphthalene	mg/kg	6.439	95UCL	4.0E+03	1.6E+01	2E-03	4E-07
24809 PANAMA AVE	2-Methylnaphthalene	mg/kg	17.53	95UCL	2.3E+02	--	8E-02	--
24809 PANAMA AVE	Benzene	µg/kg	253.6	95UCL	6.7E+04	2.2E+02	4E-03	1E-06
24809 PANAMA AVE	Bromomethane	µg/kg	750	Max	8.8E+03	--	9E-02	--
24809 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.159	95UCL	2.3E+02	1.3E+00	7E-04	1E-07
24809 PANAMA AVE	Ethylbenzene	µg/kg	738.4	95UCL	3.3E+06	4.8E+03	2E-04	2E-07
24809 PANAMA AVE	Naphthalene	mg/kg	3.973	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24809 PANAMA AVE	Pyrene	mg/kg	1.359	95UCL	1.7E+03	--	8E-04	--
24809 PANAMA AVE	Toluene	µg/kg	26	Max	4.8E+06	--	5E-06	--
24809 PANAMA AVE	TPH as Diesel	mg/kg	4543	95UCL	1.3E+03	--	4E+00	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24809 PANAMA AVE	TPH as Gasoline	mg/kg	256.1	95UCL	7.6E+02	--	3E-01	--
24809 PANAMA AVE	TPH as Motor Oil	mg/kg	4941	95UCL	3.3E+03	--	2E+00	--
24809 PANAMA AVE	Xylenes, Total	µg/kg	985.5	95UCL	5.6E+05	--	2E-03	--
24812 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.36	Max	6.2E+05	4.7E+02	6E-07	8E-10
24812 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.161	95UCL	8.3E+04	--	2E-06	--
24812 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.17	Max	3.6E+06	2.8E+03	5E-08	6E-11
24812 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0236	95UCL	4.0E+03	1.6E+01	6E-06	2E-09
24812 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0688	95UCL	2.3E+02	--	3E-04	--
24812 PANAMA AVE	Benzene	µg/kg	0.161	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24812 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
24812 PANAMA AVE	Naphthalene	mg/kg	0.03	95UCL	1.5E+02	4.0E+00	2E-04	8E-09
24812 PANAMA AVE	Pyrene	mg/kg	0.18	95UCL	1.7E+03	--	1E-04	--
24812 PANAMA AVE	Toluene	µg/kg	0.158	95UCL	4.8E+06	--	3E-08	--
24812 PANAMA AVE	TPH as Diesel	mg/kg	684.6	95UCL	1.3E+03	--	5E-01	--
24812 PANAMA AVE	TPH as Gasoline	mg/kg	0.088	Max	7.6E+02	--	1E-04	--
24812 PANAMA AVE	TPH as Motor Oil	mg/kg	1002	95UCL	3.3E+03	--	3E-01	--
24812 PANAMA AVE	Xylenes, Total	µg/kg	0.18	Max	5.6E+05	--	3E-07	--
24813 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	582.2	95UCL	8.3E+04	--	7E-03	--
24813 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	194.2	95UCL	8.5E+04	--	2E-03	--
24813 PANAMA AVE	1-Methylnaphthalene	mg/kg	8.123	95UCL	4.0E+03	1.6E+01	2E-03	5E-07
24813 PANAMA AVE	2-Methylnaphthalene	mg/kg	21.4	95UCL	2.3E+02	--	9E-02	--
24813 PANAMA AVE	Benzene	µg/kg	20.86	95UCL	6.7E+04	2.2E+02	3E-04	1E-07
24813 PANAMA AVE	Cobalt	mg/kg	9.869	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
24813 PANAMA AVE	Ethylbenzene	µg/kg	547.2	95UCL	3.3E+06	4.8E+03	2E-04	1E-07
24813 PANAMA AVE	Naphthalene	mg/kg	11.84	95UCL	1.5E+02	4.0E+00	8E-02	3E-06
24813 PANAMA AVE	Pyrene	mg/kg	1.436	95UCL	1.7E+03	--	8E-04	--
24813 PANAMA AVE	Toluene	µg/kg	1.5	Max	4.8E+06	--	3E-07	--
24813 PANAMA AVE	TPH as Diesel	mg/kg	4660	95UCL	1.3E+03	--	4E+00	--
24813 PANAMA AVE	TPH as Gasoline	mg/kg	150.9	95UCL	7.6E+02	--	2E-01	--
24813 PANAMA AVE	TPH as Motor Oil	mg/kg	5424	95UCL	3.3E+03	--	2E+00	--
24813 PANAMA AVE	Xylenes, Total	µg/kg	260.8	95UCL	5.6E+05	--	5E-04	--
24815 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	420	Max	8.3E+04	--	5E-03	--
24815 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	210	Max	8.5E+04	--	3E-03	--
24815 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.07	95UCL	4.0E+03	1.6E+01	5E-04	1E-07
24815 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	2.026	95UCL	2.3E+02	--	9E-03	--
24815 NEPTUNE AVE	Benzene	µg/kg	0.249	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24815 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.55	Max	1.2E+03	3.5E+01	5E-04	2E-08
24815 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.3	Max	2.3E+02	1.3E+00	1E-03	2E-07
24815 NEPTUNE AVE	Ethylbenzene	µg/kg	71	Max	3.3E+06	4.8E+03	2E-05	2E-08
24815 NEPTUNE AVE	Naphthalene	mg/kg	0.17	95UCL	1.5E+02	4.0E+00	1E-03	4E-08
24815 NEPTUNE AVE	Pyrene	mg/kg	1.596	95UCL	1.7E+03	--	9E-04	--
24815 NEPTUNE AVE	Toluene	µg/kg	0.616	95UCL	4.8E+06	--	1E-07	--
24815 NEPTUNE AVE	TPH as Diesel	mg/kg	2185	95UCL	1.3E+03	--	2E+00	--
24815 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.226	95UCL	7.6E+02	--	3E-04	--
24815 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4080	95UCL	3.3E+03	--	1E+00	--
24815 NEPTUNE AVE	Xylenes, Total	µg/kg	170	Max	5.6E+05	--	3E-04	--
24818 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	420	Max	6.2E+05	4.7E+02	7E-04	9E-07
24818 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	123.6	95UCL	8.3E+04	--	2E-03	--
24818 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	270	Max	8.5E+04	--	3E-03	--
24818 PANAMA AVE	1-Methylnaphthalene	mg/kg	12.52	95UCL	4.0E+03	1.6E+01	3E-03	8E-07
24818 PANAMA AVE	2-Methylnaphthalene	mg/kg	11.26	95UCL	2.3E+02	--	5E-02	--
24818 PANAMA AVE	Benzene	µg/kg	0.425	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24818 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.26	Max	1.2E+03	3.5E+01	2E-04	8E-09
24818 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.323	95UCL	2.3E+02	1.3E+00	1E-03	3E-07
24818 PANAMA AVE	Ethylbenzene	µg/kg	670	Max	3.3E+06	4.8E+03	2E-04	1E-07
24818 PANAMA AVE	Naphthalene	mg/kg	1.617	95UCL	1.5E+02	4.0E+00	1E-02	4E-07
24818 PANAMA AVE	Pyrene	mg/kg	26.13	95UCL	1.7E+03	--	2E-02	--
24818 PANAMA AVE	Toluene	µg/kg	6.822	95UCL	4.8E+06	--	1E-06	--
24818 PANAMA AVE	TPH as Diesel	mg/kg	9316	95UCL	1.3E+03	--	7E+00	--
24818 PANAMA AVE	TPH as Gasoline	mg/kg	137.8	95UCL	7.6E+02	--	2E-01	--
24818 PANAMA AVE	TPH as Motor Oil	mg/kg	12846	95UCL	3.3E+03	--	4E+00	--
24818 PANAMA AVE	Xylenes, Total	µg/kg	58.72	95UCL	5.6E+05	--	1E-04	--
24819 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	1.3	Max	2.4E+03	2.1E+01	6E-04	6E-08

Appendix E
Detailed Risk Calculations

Table E-2
CO-C Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24819 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1421	95UCL	8.3E+04	--	2E-02	--
24819 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	113.7	95UCL	8.5E+04	--	1E-03	--
24819 PANAMA AVE	1-Methylnaphthalene	mg/kg	7.254	95UCL	4.0E+03	1.6E+01	2E-03	5E-07
24819 PANAMA AVE	2-Methylnaphthalene	mg/kg	11.79	95UCL	2.3E+02	--	5E-02	--
24819 PANAMA AVE	Benzene	µg/kg	418.5	95UCL	6.7E+04	2.2E+02	6E-03	2E-06
24819 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.9	Max	1.2E+03	3.5E+01	2E-03	6E-08
24819 PANAMA AVE	Bromomethane	µg/kg	250	Max	8.8E+03	--	3E-02	--
24819 PANAMA AVE	Ethylbenzene	µg/kg	635.9	95UCL	3.3E+06	4.8E+03	2E-04	1E-07
24819 PANAMA AVE	Naphthalene	mg/kg	4.333	95UCL	1.5E+02	4.0E+00	3E-02	1E-06
24819 PANAMA AVE	Pyrene	mg/kg	0.508	95UCL	1.7E+03	--	3E-04	--
24819 PANAMA AVE	Toluene	µg/kg	7.027	95UCL	4.8E+06	--	2E-06	--
24819 PANAMA AVE	TPH as Diesel	mg/kg	3735	95UCL	1.3E+03	--	3E+00	--
24819 PANAMA AVE	TPH as Gasoline	mg/kg	430.4	95UCL	7.6E+02	--	6E-01	--
24819 PANAMA AVE	TPH as Motor Oil	mg/kg	3923	95UCL	3.3E+03	--	1E+00	--
24819 PANAMA AVE	Xylenes, Total	µg/kg	1344	95UCL	5.6E+05	--	2E-03	--
24822 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	1.1	Max	2.4E+03	2.1E+01	5E-04	5E-08
24822 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	7.179	95UCL	8.3E+04	--	9E-05	--
24822 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.377	95UCL	8.5E+04	--	5E-06	--
24822 PANAMA AVE	1-Methylnaphthalene	mg/kg	3.165	95UCL	4.0E+03	1.6E+01	8E-04	2E-07
24822 PANAMA AVE	2-Methylnaphthalene	mg/kg	4.487	95UCL	2.3E+02	--	2E-02	--
24822 PANAMA AVE	Benzene	µg/kg	1.384	95UCL	6.7E+04	2.2E+02	2E-05	6E-09
24822 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.63	Max	1.2E+03	3.5E+01	5E-04	2E-08
24822 PANAMA AVE	Bromomethane	µg/kg	1.8	Max	8.8E+03	--	2E-04	--
24822 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.267	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24822 PANAMA AVE	Ethylbenzene	µg/kg	6.279	95UCL	3.3E+06	4.8E+03	2E-06	1E-09
24822 PANAMA AVE	Naphthalene	mg/kg	1.228	95UCL	1.5E+02	4.0E+00	8E-03	3E-07
24822 PANAMA AVE	Pyrene	mg/kg	0.694	95UCL	1.7E+03	--	4E-04	--
24822 PANAMA AVE	Toluene	µg/kg	0.295	95UCL	4.8E+06	--	6E-08	--
24822 PANAMA AVE	TPH as Diesel	mg/kg	8659	95UCL	1.3E+03	--	7E+00	--
24822 PANAMA AVE	TPH as Gasoline	mg/kg	45.21	95UCL	7.6E+02	--	6E-02	--
24822 PANAMA AVE	TPH as Motor Oil	mg/kg	15049	95UCL	3.3E+03	--	5E+00	--
24822 PANAMA AVE	Xylenes, Total	µg/kg	29.49	95UCL	5.6E+05	--	5E-05	--
24823 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	159.5	95UCL	8.3E+04	--	2E-03	--
24823 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	10	Max	8.5E+04	--	1E-04	--
24823 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.352	95UCL	4.0E+03	1.6E+01	3E-04	9E-08
24823 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.665	95UCL	2.3E+02	--	7E-03	--
24823 PANAMA AVE	Benzene	µg/kg	0.222	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24823 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.45	Max	1.2E+03	3.5E+01	4E-04	1E-08
24823 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.127	95UCL	2.3E+02	1.3E+00	5E-04	1E-07
24823 PANAMA AVE	Ethylbenzene	µg/kg	75.1	95UCL	3.3E+06	4.8E+03	2E-05	2E-08
24823 PANAMA AVE	Naphthalene	mg/kg	0.457	95UCL	1.5E+02	4.0E+00	3E-03	1E-07
24823 PANAMA AVE	Pyrene	mg/kg	0.421	95UCL	1.7E+03	--	3E-04	--
24823 PANAMA AVE	Toluene	µg/kg	0.208	95UCL	4.8E+06	--	4E-08	--
24823 PANAMA AVE	TPH as Diesel	mg/kg	2016	95UCL	1.3E+03	--	2E+00	--
24823 PANAMA AVE	TPH as Gasoline	mg/kg	110	95UCL	7.6E+02	--	1E-01	--
24823 PANAMA AVE	TPH as Motor Oil	mg/kg	2511	95UCL	3.3E+03	--	8E-01	--
24823 PANAMA AVE	Xylenes, Total	µg/kg	14.61	95UCL	5.6E+05	--	3E-05	--
24825 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.47	Max	8.3E+04	--	6E-06	--
24825 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.24	Max	3.6E+06	2.8E+03	7E-08	9E-11
24825 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.00393	95UCL	4.0E+03	1.6E+01	1E-06	3E-10
24825 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0177	95UCL	2.3E+02	--	8E-05	--
24825 NEPTUNE AVE	Benzene	µg/kg	0.157	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
24825 NEPTUNE AVE	Bromomethane	µg/kg	2.9	95UCL	8.8E+03	--	3E-04	--
24825 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.262	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24825 NEPTUNE AVE	Naphthalene	mg/kg	0.00845	95UCL	1.5E+02	4.0E+00	6E-05	2E-09
24825 NEPTUNE AVE	Pyrene	mg/kg	0.0537	95UCL	1.7E+03	--	3E-05	--
24825 NEPTUNE AVE	Tetrachloroethene	µg/kg	0.28	Max	8.6E+04	5.5E+02	3E-06	5E-10
24825 NEPTUNE AVE	Toluene	µg/kg	1.013	95UCL	4.8E+06	--	2E-07	--
24825 NEPTUNE AVE	TPH as Diesel	mg/kg	163.1	95UCL	1.3E+03	--	1E-01	--
24825 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.293	95UCL	7.6E+02	--	4E-04	--
24825 NEPTUNE AVE	TPH as Motor Oil	mg/kg	603	95UCL	3.3E+03	--	2E-01	--
24825 NEPTUNE AVE	Xylenes, Total	µg/kg	0.29	Max	5.6E+05	--	5E-07	--
24828 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1.4	Max	8.3E+04	--	2E-05	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24828 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0168	95UCL	4.0E+03	1.6E+01	4E-06	1E-09
24828 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0699	95UCL	2.3E+02	--	3E-04	--
24828 PANAMA AVE	Benzene	µg/kg	0.208	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24828 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.12	Max	1.2E+03	3.5E+01	1E-04	4E-09
24828 PANAMA AVE	Bromodichloromethane	µg/kg	0.37	Max	4.3E+05	4.9E+02	9E-07	8E-10
24828 PANAMA AVE	Ethylbenzene	µg/kg	0.79	Max	3.3E+06	4.8E+03	2E-07	2E-10
24828 PANAMA AVE	Methylene Chloride	µg/kg	1.5	Max	3.6E+05	5.3E+03	4E-06	3E-10
24828 PANAMA AVE	Naphthalene	mg/kg	0.0065	95UCL	1.5E+02	4.0E+00	4E-05	2E-09
24828 PANAMA AVE	Pyrene	mg/kg	3.143	95UCL	1.7E+03	--	2E-03	--
24828 PANAMA AVE	TPH as Diesel	mg/kg	19306	95UCL	1.3E+03	--	2E+01	--
24828 PANAMA AVE	TPH as Gasoline	mg/kg	3.626	95UCL	7.6E+02	--	5E-03	--
24828 PANAMA AVE	TPH as Motor Oil	mg/kg	32562	95UCL	3.3E+03	--	1E+01	--
24828 PANAMA AVE	Xylenes, Total	µg/kg	1.8	Max	5.6E+05	--	3E-06	--
24829 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	123.5	95UCL	8.3E+04	--	2E-03	--
24829 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	32.27	95UCL	8.5E+04	--	4E-04	--
24829 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.12	95UCL	4.0E+03	1.6E+01	3E-05	8E-09
24829 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.296	95UCL	2.3E+02	--	1E-03	--
24829 PANAMA AVE	Benzene	µg/kg	3.3	95UCL	6.7E+04	2.2E+02	5E-05	2E-08
24829 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	22	Max	1.2E+03	3.5E+01	2E-02	6E-07
24829 PANAMA AVE	Bromomethane	µg/kg	2.1	Max	8.8E+03	--	2E-04	--
24829 PANAMA AVE	Ethylbenzene	µg/kg	43.75	95UCL	3.3E+06	4.8E+03	1E-05	9E-09
24829 PANAMA AVE	Naphthalene	mg/kg	0.197	95UCL	1.5E+02	4.0E+00	1E-03	5E-08
24829 PANAMA AVE	Pyrene	mg/kg	0.442	95UCL	1.7E+03	--	3E-04	--
24829 PANAMA AVE	Toluene	µg/kg	0.228	95UCL	4.8E+06	--	5E-08	--
24829 PANAMA AVE	TPH as Diesel	mg/kg	756.5	95UCL	1.3E+03	--	6E-01	--
24829 PANAMA AVE	TPH as Gasoline	mg/kg	16.79	95UCL	7.6E+02	--	2E-02	--
24829 PANAMA AVE	TPH as Motor Oil	mg/kg	1293	95UCL	3.3E+03	--	4E-01	--
24829 PANAMA AVE	Xylenes, Total	µg/kg	43.51	95UCL	5.6E+05	--	8E-05	--
24832 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.575	95UCL	8.3E+04	--	7E-06	--
24832 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.165	95UCL	8.5E+04	--	2E-06	--
24832 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0144	95UCL	4.0E+03	1.6E+01	4E-06	9E-10
24832 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.091	95UCL	2.3E+02	--	4E-04	--
24832 PANAMA AVE	Benzene	µg/kg	0.207	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
24832 PANAMA AVE	Bromomethane	µg/kg	2.1	Max	8.8E+03	--	2E-04	--
24832 PANAMA AVE	Ethylbenzene	µg/kg	0.44	Max	3.3E+06	4.8E+03	1E-07	9E-11
24832 PANAMA AVE	Naphthalene	mg/kg	0.0397	95UCL	1.5E+02	4.0E+00	3E-04	1E-08
24832 PANAMA AVE	Pyrene	mg/kg	0.71	95UCL	1.7E+03	--	4E-04	--
24832 PANAMA AVE	Toluene	µg/kg	0.212	95UCL	4.8E+06	--	4E-08	--
24832 PANAMA AVE	TPH as Diesel	mg/kg	897.4	95UCL	1.3E+03	--	7E-01	--
24832 PANAMA AVE	TPH as Gasoline	mg/kg	0.0896	95UCL	7.6E+02	--	1E-04	--
24832 PANAMA AVE	TPH as Motor Oil	mg/kg	1436	95UCL	3.3E+03	--	4E-01	--
24832 PANAMA AVE	Vinyl Chloride	µg/kg	0.305	95UCL	7.4E+04	3.2E+01	4E-06	1E-08
24832 PANAMA AVE	Xylenes, Total	µg/kg	0.544	95UCL	5.6E+05	--	1E-06	--
24833 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	7.113	95UCL	8.3E+04	--	9E-05	--
24833 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	47	Max	8.5E+04	--	6E-04	--
24833 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.287	95UCL	4.0E+03	1.6E+01	7E-05	2E-08
24833 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.477	95UCL	2.3E+02	--	2E-03	--
24833 PANAMA AVE	Benzene	µg/kg	2.182	95UCL	6.7E+04	2.2E+02	3E-05	1E-08
24833 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.24	Max	1.2E+03	3.5E+01	2E-04	7E-09
24833 PANAMA AVE	Bromomethane	µg/kg	2	Max	8.8E+03	--	2E-04	--
24833 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.24	Max	2.3E+02	1.3E+00	1E-03	2E-07
24833 PANAMA AVE	Ethylbenzene	µg/kg	22	Max	3.3E+06	4.8E+03	7E-06	5E-09
24833 PANAMA AVE	Naphthalene	mg/kg	0.126	95UCL	1.5E+02	4.0E+00	8E-04	3E-08
24833 PANAMA AVE	Pyrene	mg/kg	0.777	95UCL	1.7E+03	--	5E-04	--
24833 PANAMA AVE	Toluene	µg/kg	2.724	95UCL	4.8E+06	--	6E-07	--
24833 PANAMA AVE	TPH as Diesel	mg/kg	892	95UCL	1.3E+03	--	7E-01	--
24833 PANAMA AVE	TPH as Gasoline	mg/kg	0.361	95UCL	7.6E+02	--	5E-04	--
24833 PANAMA AVE	TPH as Motor Oil	mg/kg	1403	95UCL	3.3E+03	--	4E-01	--
24833 PANAMA AVE	Xylenes, Total	µg/kg	43	Max	5.6E+05	--	8E-05	--
24838 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.441	95UCL	8.3E+04	--	5E-06	--
24838 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.15	Max	8.5E+04	--	2E-06	--
24838 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.043	Max	4.0E+03	1.6E+01	1E-05	3E-09
24838 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.143	95UCL	2.3E+02	--	6E-04	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24838 PANAMA AVE	Benzene	µg/kg	0.367	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
24838 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.47	Max	2.3E+02	1.3E+00	2E-03	4E-07
24838 PANAMA AVE	Ethylbenzene	µg/kg	0.2	Max	3.3E+06	4.8E+03	6E-08	4E-11
24838 PANAMA AVE	Methylene Chloride	µg/kg	29	Max	3.6E+05	5.3E+03	8E-05	6E-09
24838 PANAMA AVE	Naphthalene	mg/kg	0.0234	95UCL	1.5E+02	4.0E+00	2E-04	6E-09
24838 PANAMA AVE	Pyrene	mg/kg	1.407	95UCL	1.7E+03	--	8E-04	--
24838 PANAMA AVE	Toluene	µg/kg	0.299	95UCL	4.8E+06	--	6E-08	--
24838 PANAMA AVE	TPH as Diesel	mg/kg	4634	95UCL	1.3E+03	--	4E+00	--
24838 PANAMA AVE	TPH as Gasoline	mg/kg	0.092	95UCL	7.6E+02	--	1E-04	--
24838 PANAMA AVE	TPH as Motor Oil	mg/kg	11088	95UCL	3.3E+03	--	3E+00	--
24838 PANAMA AVE	Xylenes, Total	µg/kg	0.266	95UCL	5.6E+05	--	5E-07	--
24904 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1.574	95UCL	8.3E+04	--	2E-05	--
24904 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1	Max	8.5E+04	--	1E-05	--
24904 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.234	95UCL	4.0E+03	1.6E+01	6E-05	2E-08
24904 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.352	95UCL	2.3E+02	--	2E-03	--
24904 NEPTUNE AVE	Benzene	µg/kg	0.229	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
24904 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.19	Max	1.2E+03	3.5E+01	2E-04	6E-09
24904 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.29	Max	2.3E+02	1.3E+00	1E-03	2E-07
24904 NEPTUNE AVE	Ethylbenzene	µg/kg	3.1	Max	3.3E+06	4.8E+03	1E-06	7E-10
24904 NEPTUNE AVE	Naphthalene	mg/kg	0.0864	95UCL	1.5E+02	4.0E+00	6E-04	2E-08
24904 NEPTUNE AVE	Pyrene	mg/kg	0.415	95UCL	1.7E+03	--	2E-04	--
24904 NEPTUNE AVE	Toluene	µg/kg	0.169	95UCL	4.8E+06	--	4E-08	--
24904 NEPTUNE AVE	TPH as Diesel	mg/kg	584.6	95UCL	1.3E+03	--	5E-01	--
24904 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.27	95UCL	7.6E+02	--	4E-04	--
24904 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1370	95UCL	3.3E+03	--	4E-01	--
24904 NEPTUNE AVE	Xylenes, Total	µg/kg	0.378	95UCL	5.6E+05	--	7E-07	--
24912 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.35	Max	8.3E+04	--	4E-06	--
24912 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.2	Max	3.6E+06	2.8E+03	6E-08	7E-11
24912 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.00337	95UCL	4.0E+03	1.6E+01	8E-07	2E-10
24912 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0161	95UCL	2.3E+02	--	7E-05	--
24912 NEPTUNE AVE	Benzene	µg/kg	0.27	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
24912 NEPTUNE AVE	Bromomethane	µg/kg	3.3	Max	8.8E+03	--	4E-04	--
24912 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.267	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
24912 NEPTUNE AVE	Ethylbenzene	µg/kg	0.16	Max	3.3E+06	4.8E+03	5E-08	3E-11
24912 NEPTUNE AVE	Naphthalene	mg/kg	0.00564	95UCL	1.5E+02	4.0E+00	4E-05	1E-09
24912 NEPTUNE AVE	Pyrene	mg/kg	0.111	95UCL	1.7E+03	--	7E-05	--
24912 NEPTUNE AVE	Toluene	µg/kg	0.406	95UCL	4.8E+06	--	9E-08	--
24912 NEPTUNE AVE	TPH as Diesel	mg/kg	71.72	95UCL	1.3E+03	--	6E-02	--
24912 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.071	Max	7.6E+02	--	9E-05	--
24912 NEPTUNE AVE	TPH as Motor Oil	mg/kg	208.8	95UCL	3.3E+03	--	6E-02	--
24912 NEPTUNE AVE	Xylenes, Total	µg/kg	0.53	Max	5.6E+05	--	1E-06	--
301 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.793	95UCL	8.3E+04	--	1E-05	--
301 244TH ST	1-Methylnaphthalene	mg/kg	0.015	Max	4.0E+03	1.6E+01	4E-06	1E-09
301 244TH ST	2-Methylnaphthalene	mg/kg	0.0255	95UCL	2.3E+02	--	1E-04	--
301 244TH ST	Benzene	µg/kg	0.273	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
301 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.514	95UCL	1.2E+03	3.5E+01	4E-04	2E-08
301 244TH ST	Chromium, Hexavalent	mg/kg	0.31	Max	2.3E+02	1.3E+00	1E-03	2E-07
301 244TH ST	Cobalt	mg/kg	11.11	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
301 244TH ST	Naphthalene	mg/kg	0.00652	95UCL	1.5E+02	4.0E+00	4E-05	2E-09
301 244TH ST	Pyrene	mg/kg	0.215	95UCL	1.7E+03	--	1E-04	--
301 244TH ST	Tetrachloroethene	µg/kg	0.62	Max	8.6E+04	5.5E+02	7E-06	1E-09
301 244TH ST	Toluene	µg/kg	0.391	95UCL	4.8E+06	--	8E-08	--
301 244TH ST	TPH as Diesel	mg/kg	192.8	95UCL	1.3E+03	--	2E-01	--
301 244TH ST	TPH as Gasoline	mg/kg	0.105	95UCL	7.6E+02	--	1E-04	--
301 244TH ST	TPH as Motor Oil	mg/kg	505	95UCL	3.3E+03	--	2E-01	--
301 244TH ST	Xylenes, Total	µg/kg	0.37	Max	5.6E+05	--	7E-07	--
305 244TH ST	1,2,3-Trichloropropane	µg/kg	0.6	Max	2.4E+03	2.1E+01	3E-04	3E-08
305 244TH ST	1,2,4-Trimethylbenzene	µg/kg	670	Max	8.3E+04	--	8E-03	--
305 244TH ST	1,3,5-Trimethylbenzene	µg/kg	210	Max	8.5E+04	--	3E-03	--
305 244TH ST	1-Methylnaphthalene	mg/kg	2.544	95UCL	4.0E+03	1.6E+01	6E-04	2E-07
305 244TH ST	2-Methylnaphthalene	mg/kg	2.978	95UCL	2.3E+02	--	1E-02	--
305 244TH ST	Benzene	µg/kg	0.165	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
305 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	2.4	Max	1.2E+03	3.5E+01	2E-03	7E-08

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
305 244TH ST	Chromium, Hexavalent	mg/kg	0.268	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
305 244TH ST	Cobalt	mg/kg	11.38	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
305 244TH ST	Ethylbenzene	µg/kg	120	Max	3.3E+06	4.8E+03	4E-05	3E-08
305 244TH ST	Naphthalene	mg/kg	0.178	95UCL	1.5E+02	4.0E+00	1E-03	5E-08
305 244TH ST	Pyrene	mg/kg	13.67	95UCL	1.7E+03	--	8E-03	--
305 244TH ST	Tetrachloroethene	µg/kg	0.48	Max	8.6E+04	5.5E+02	6E-06	9E-10
305 244TH ST	Toluene	µg/kg	11.35	95UCL	4.8E+06	--	2E-06	--
305 244TH ST	TPH as Diesel	mg/kg	16764	95UCL	1.3E+03	--	1E+01	--
305 244TH ST	TPH as Gasoline	mg/kg	11.77	95UCL	7.6E+02	--	2E-02	--
305 244TH ST	TPH as Motor Oil	mg/kg	34122	95UCL	3.3E+03	--	1E+01	--
305 244TH ST	Xylenes, Total	µg/kg	670	Max	5.6E+05	--	1E-03	--
311 244TH ST	1,2,4-Trimethylbenzene	µg/kg	307.7	95UCL	8.3E+04	--	4E-03	--
311 244TH ST	1,3,5-Trimethylbenzene	µg/kg	123.4	95UCL	8.5E+04	--	2E-03	--
311 244TH ST	1-Methylnaphthalene	mg/kg	9.516	95UCL	4.0E+03	1.6E+01	2E-03	6E-07
311 244TH ST	2-Methylnaphthalene	mg/kg	17.1	95UCL	2.3E+02	--	8E-02	--
311 244TH ST	Benzene	µg/kg	17.43	95UCL	6.7E+04	2.2E+02	3E-04	8E-08
311 244TH ST	Benzo (a) Anthracene	mg/kg	7.19	95UCL	--	1.6E+00	--	5E-06
311 244TH ST	Benzo (a) Pyrene	mg/kg	3.808	95UCL	--	1.6E-01	--	2E-05
311 244TH ST	Benzo (b) Fluoranthene	mg/kg	2.297	95UCL	--	1.6E+00	--	2E-06
311 244TH ST	Benzo (k) Fluoranthene	mg/kg	0.00799	95UCL	--	1.6E+00	--	5E-09
311 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.366	95UCL	1.2E+03	3.5E+01	3E-04	1E-08
311 244TH ST	Chromium, Hexavalent	mg/kg	0.191	95UCL	2.3E+02	1.3E+00	8E-04	2E-07
311 244TH ST	Chrysene	mg/kg	20.13	95UCL	--	1.6E+01	--	1E-06
311 244TH ST	Cobalt	mg/kg	9.958	95UCL	2.3E+01	3.1E+04	4E-01	3E-10
311 244TH ST	Dibenz (a,h) Anthracene	mg/kg	0.0122	95UCL	--	1.1E-01	--	1E-07
311 244TH ST	Ethylbenzene	µg/kg	86.67	95UCL	3.3E+06	4.8E+03	3E-05	2E-08
311 244TH ST	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.313	95UCL	--	1.6E+00	--	2E-07
311 244TH ST	Naphthalene	mg/kg	2.979	95UCL	1.5E+02	4.0E+00	2E-02	8E-07
311 244TH ST	Pyrene	mg/kg	36.76	95UCL	1.7E+03	--	2E-02	--
311 244TH ST	Toluene	µg/kg	42.14	95UCL	4.8E+06	--	9E-06	--
311 244TH ST	TPH as Diesel	mg/kg	30858	95UCL	1.3E+03	--	2E+01	--
311 244TH ST	TPH as Gasoline	mg/kg	79.14	95UCL	7.6E+02	--	1E-01	--
311 244TH ST	TPH as Motor Oil	mg/kg	61007	95UCL	3.3E+03	--	2E+01	--
311 244TH ST	Vanadium	mg/kg	36.05	95UCL	3.9E+02	--	9E-02	--
311 244TH ST	Xylenes, Total	µg/kg	253.1	95UCL	5.6E+05	--	5E-04	--
317 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.155	95UCL	8.3E+04	--	2E-06	--
317 244TH ST	1,3,5-Trimethylbenzene	µg/kg	0.16	Max	8.5E+04	--	2E-06	--
317 244TH ST	1-Methylnaphthalene	mg/kg	2.219	95UCL	4.0E+03	1.6E+01	6E-04	1E-07
317 244TH ST	2-Methylnaphthalene	mg/kg	3.361	95UCL	2.3E+02	--	2E-02	--
317 244TH ST	Benzene	µg/kg	0.259	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
317 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.64	Max	1.2E+03	3.5E+01	5E-04	2E-08
317 244TH ST	Bromodichloromethane	µg/kg	1.1	Max	4.3E+05	4.9E+02	3E-06	2E-09
317 244TH ST	Cobalt	mg/kg	10.61	95UCL	2.3E+01	3.1E+04	5E-01	3E-10
317 244TH ST	Naphthalene	mg/kg	0.274	95UCL	1.5E+02	4.0E+00	2E-03	7E-08
317 244TH ST	Pyrene	mg/kg	26.2	95UCL	1.7E+03	--	2E-02	--
317 244TH ST	Toluene	µg/kg	0.29	95UCL	4.8E+06	--	6E-08	--
317 244TH ST	TPH as Diesel	mg/kg	15543	95UCL	1.3E+03	--	1E+01	--
317 244TH ST	TPH as Gasoline	mg/kg	0.117	95UCL	7.6E+02	--	2E-04	--
317 244TH ST	TPH as Motor Oil	mg/kg	30073	95UCL	3.3E+03	--	9E+00	--
317 244TH ST	Xylenes, Total	µg/kg	0.31	Max	5.6E+05	--	6E-07	--
321 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.19	Max	8.3E+04	--	2E-06	--
321 244TH ST	1-Methylnaphthalene	mg/kg	0.00406	95UCL	4.0E+03	1.6E+01	1E-06	3E-10
321 244TH ST	2-Methylnaphthalene	mg/kg	0.00704	95UCL	2.3E+02	--	3E-05	--
321 244TH ST	Benzene	µg/kg	0.223	95UCL	6.7E+04	2.2E+02	3E-06	1E-09
321 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.19	Max	1.2E+03	3.5E+01	2E-04	6E-09
321 244TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
321 244TH ST	Cobalt	mg/kg	13.16	95UCL	2.3E+01	3.1E+04	6E-01	4E-10
321 244TH ST	Naphthalene	mg/kg	0.00443	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
321 244TH ST	Pyrene	mg/kg	0.0321	95UCL	1.7E+03	--	2E-05	--
321 244TH ST	Toluene	µg/kg	1.595	95UCL	4.8E+06	--	3E-07	--
321 244TH ST	TPH as Diesel	mg/kg	67.06	95UCL	1.3E+03	--	5E-02	--
321 244TH ST	TPH as Gasoline	mg/kg	0.078	95UCL	7.6E+02	--	1E-04	--
321 244TH ST	TPH as Motor Oil	mg/kg	136.2	95UCL	3.3E+03	--	4E-02	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
321 244TH ST	Vanadium	mg/kg	44.56	95UCL	3.9E+02	--	1E-01	--
321 244TH ST	Xylenes, Total	µg/kg	0.72	Max	5.6E+05	--	1E-06	--
327 244TH ST	2-Methylnaphthalene	mg/kg	0.00288	95UCL	2.3E+02	--	1E-05	--
327 244TH ST	Benzene	µg/kg	0.144	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
327 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	1.2E+03	3.5E+01	1E-04	5E-09
327 244TH ST	Chromium, Hexavalent	mg/kg	0.76	Max	2.3E+02	1.3E+00	3E-03	6E-07
327 244TH ST	Cobalt	mg/kg	11.34	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
327 244TH ST	Naphthalene	mg/kg	0.0014	Max	1.5E+02	4.0E+00	9E-06	4E-10
327 244TH ST	Pyrene	mg/kg	0.00716	95UCL	1.7E+03	--	4E-06	--
327 244TH ST	Toluene	µg/kg	0.23	Max	4.8E+06	--	5E-08	--
327 244TH ST	TPH as Diesel	mg/kg	80.11	95UCL	1.3E+03	--	6E-02	--
327 244TH ST	TPH as Gasoline	mg/kg	0.056	Max	7.6E+02	--	7E-05	--
327 244TH ST	TPH as Motor Oil	mg/kg	146.2	95UCL	3.3E+03	--	4E-02	--
327 244TH ST	Vanadium	mg/kg	39.48	95UCL	3.9E+02	--	1E-01	--
331 244TH ST	1-Methylnaphthalene	mg/kg	0.00194	95UCL	4.0E+03	1.6E+01	5E-07	1E-10
331 244TH ST	2-Methylnaphthalene	mg/kg	0.00279	95UCL	2.3E+02	--	1E-05	--
331 244TH ST	Benzene	µg/kg	0.246	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
331 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.73	Max	1.2E+03	3.5E+01	6E-04	2E-08
331 244TH ST	Chromium, Hexavalent	mg/kg	0.6	Max	2.3E+02	1.3E+00	3E-03	5E-07
331 244TH ST	Cobalt	mg/kg	12.2	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
331 244TH ST	Naphthalene	mg/kg	0.00205	95UCL	1.5E+02	4.0E+00	1E-05	5E-10
331 244TH ST	Pyrene	mg/kg	0.0143	95UCL	1.7E+03	--	8E-06	--
331 244TH ST	Toluene	µg/kg	0.237	95UCL	4.8E+06	--	5E-08	--
331 244TH ST	TPH as Diesel	mg/kg	65.38	95UCL	1.3E+03	--	5E-02	--
331 244TH ST	TPH as Gasoline	mg/kg	0.0769	95UCL	7.6E+02	--	1E-04	--
331 244TH ST	TPH as Motor Oil	mg/kg	242.4	95UCL	3.3E+03	--	7E-02	--
331 244TH ST	Vanadium	mg/kg	38.31	95UCL	3.9E+02	--	1E-01	--
337 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.19	Max	8.3E+04	--	2E-06	--
337 244TH ST	1-Methylnaphthalene	mg/kg	0.00338	95UCL	4.0E+03	1.6E+01	8E-07	2E-10
337 244TH ST	2-Methylnaphthalene	mg/kg	0.00612	95UCL	2.3E+02	--	3E-05	--
337 244TH ST	Benzene	µg/kg	0.195	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
337 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.422	95UCL	1.2E+03	3.5E+01	4E-04	1E-08
337 244TH ST	Chromium, Hexavalent	mg/kg	0.3	Max	2.3E+02	1.3E+00	1E-03	2E-07
337 244TH ST	Cobalt	mg/kg	11.18	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
337 244TH ST	Ethylbenzene	µg/kg	0.35	Max	3.3E+06	4.8E+03	1E-07	7E-11
337 244TH ST	Naphthalene	mg/kg	0.00569	95UCL	1.5E+02	4.0E+00	4E-05	1E-09
337 244TH ST	Pyrene	mg/kg	0.0368	95UCL	1.7E+03	--	2E-05	--
337 244TH ST	Toluene	µg/kg	0.253	95UCL	4.8E+06	--	5E-08	--
337 244TH ST	TPH as Diesel	mg/kg	487.3	95UCL	1.3E+03	--	4E-01	--
337 244TH ST	TPH as Gasoline	mg/kg	2.034	95UCL	7.6E+02	--	3E-03	--
337 244TH ST	TPH as Motor Oil	mg/kg	665.7	95UCL	3.3E+03	--	2E-01	--
337 244TH ST	Vanadium	mg/kg	39.33	95UCL	3.9E+02	--	1E-01	--
337 244TH ST	Xylenes, Total	µg/kg	0.2	Max	5.6E+05	--	4E-07	--
341 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.164	95UCL	8.3E+04	--	2E-06	--
341 244TH ST	1,4-Dichlorobenzene	µg/kg	0.29	Max	3.6E+06	2.8E+03	8E-08	1E-10
341 244TH ST	1-Methylnaphthalene	mg/kg	0.0056	Max	4.0E+03	1.6E+01	1E-06	4E-10
341 244TH ST	2-Methylnaphthalene	mg/kg	0.00363	95UCL	2.3E+02	--	2E-05	--
341 244TH ST	Benzene	µg/kg	0.186	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
341 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.86	Max	1.2E+03	3.5E+01	7E-04	3E-08
341 244TH ST	Bromomethane	µg/kg	5.6	Max	8.8E+03	--	6E-04	--
341 244TH ST	Chromium, Hexavalent	mg/kg	0.56	Max	2.3E+02	1.3E+00	2E-03	4E-07
341 244TH ST	Cobalt	mg/kg	12.2	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
341 244TH ST	Naphthalene	mg/kg	0.00229	95UCL	1.5E+02	4.0E+00	2E-05	6E-10
341 244TH ST	Pyrene	mg/kg	0.0306	95UCL	1.7E+03	--	2E-05	--
341 244TH ST	Toluene	µg/kg	0.22	95UCL	4.8E+06	--	5E-08	--
341 244TH ST	TPH as Diesel	mg/kg	45.28	95UCL	1.3E+03	--	4E-02	--
341 244TH ST	TPH as Gasoline	mg/kg	0.0798	95UCL	7.6E+02	--	1E-04	--
341 244TH ST	TPH as Motor Oil	mg/kg	108.2	95UCL	3.3E+03	--	3E-02	--
341 244TH ST	Xylenes, Total	µg/kg	0.45	Max	5.6E+05	--	8E-07	--
344 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.276	95UCL	8.3E+04	--	3E-06	--
344 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.11	Max	8.5E+04	--	1E-06	--
344 249TH ST	1-Methylnaphthalene	mg/kg	0.0425	95UCL	4.0E+03	1.6E+01	1E-05	3E-09
344 249TH ST	2-Methylnaphthalene	mg/kg	0.11	95UCL	2.3E+02	--	5E-04	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
344 249TH ST	Benzene	µg/kg	0.397	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
344 249TH ST	Ethylbenzene	µg/kg	0.2	Max	3.3E+06	4.8E+03	6E-08	4E-11
344 249TH ST	Naphthalene	mg/kg	0.012	95UCL	1.5E+02	4.0E+00	8E-05	3E-09
344 249TH ST	Pyrene	mg/kg	0.699	95UCL	1.7E+03	--	4E-04	--
344 249TH ST	Toluene	µg/kg	0.242	95UCL	4.8E+06	--	5E-08	--
344 249TH ST	TPH as Diesel	mg/kg	997.6	95UCL	1.3E+03	--	8E-01	--
344 249TH ST	TPH as Gasoline	mg/kg	0.12	Max	7.6E+02	--	2E-04	--
344 249TH ST	TPH as Motor Oil	mg/kg	2395	95UCL	3.3E+03	--	7E-01	--
344 249TH ST	Xylenes, Total	µg/kg	0.404	95UCL	5.6E+05	--	7E-07	--
345 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.203	95UCL	8.3E+04	--	3E-06	--
345 249TH ST	1-Methylnaphthalene	mg/kg	0.391	95UCL	4.0E+03	1.6E+01	1E-04	3E-08
345 249TH ST	2-Methylnaphthalene	mg/kg	0.388	95UCL	2.3E+02	--	2E-03	--
345 249TH ST	Benzene	µg/kg	0.182	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
345 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.44	Max	1.2E+03	3.5E+01	4E-04	1E-08
345 249TH ST	Chromium, Hexavalent	mg/kg	0.265	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
345 249TH ST	Ethylbenzene	µg/kg	0.16	Max	3.3E+06	4.8E+03	5E-08	3E-11
345 249TH ST	Naphthalene	mg/kg	0.0761	95UCL	1.5E+02	4.0E+00	5E-04	2E-08
345 249TH ST	Pyrene	mg/kg	0.321	95UCL	1.7E+03	--	2E-04	--
345 249TH ST	Toluene	µg/kg	0.307	95UCL	4.8E+06	--	6E-08	--
345 249TH ST	TPH as Diesel	mg/kg	693.9	95UCL	1.3E+03	--	5E-01	--
345 249TH ST	TPH as Gasoline	mg/kg	0.115	95UCL	7.6E+02	--	2E-04	--
345 249TH ST	TPH as Motor Oil	mg/kg	1505	95UCL	3.3E+03	--	5E-01	--
345 249TH ST	Xylenes, Total	µg/kg	0.214	95UCL	5.6E+05	--	4E-07	--
347 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.219	95UCL	8.3E+04	--	3E-06	--
347 244TH ST	1,3,5-Trimethylbenzene	µg/kg	0.13	Max	8.5E+04	--	2E-06	--
347 244TH ST	1-Methylnaphthalene	mg/kg	0.011	Max	4.0E+03	1.6E+01	3E-06	7E-10
347 244TH ST	2-Methylnaphthalene	mg/kg	0.00471	95UCL	2.3E+02	--	2E-05	--
347 244TH ST	Benzene	µg/kg	0.184	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
347 244TH ST	Chromium, Hexavalent	mg/kg	0.48	Max	2.3E+02	1.3E+00	2E-03	4E-07
347 244TH ST	Cobalt	mg/kg	11.9	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
347 244TH ST	Naphthalene	mg/kg	0.00257	95UCL	1.5E+02	4.0E+00	2E-05	7E-10
347 244TH ST	Pyrene	mg/kg	0.0128	95UCL	1.7E+03	--	8E-06	--
347 244TH ST	Toluene	µg/kg	0.316	95UCL	4.8E+06	--	7E-08	--
347 244TH ST	TPH as Diesel	mg/kg	83.56	95UCL	1.3E+03	--	6E-02	--
347 244TH ST	TPH as Gasoline	mg/kg	0.096	Max	7.6E+02	--	1E-04	--
347 244TH ST	TPH as Motor Oil	mg/kg	253.2	95UCL	3.3E+03	--	8E-02	--
347 244TH ST	Xylenes, Total	µg/kg	0.23	Max	5.6E+05	--	4E-07	--
348 248TH ST	1,2,4-Trimethylbenzene	µg/kg	453.7	95UCL	8.3E+04	--	6E-03	--
348 248TH ST	1,3,5-Trimethylbenzene	µg/kg	130.9	95UCL	8.5E+04	--	2E-03	--
348 248TH ST	1-Methylnaphthalene	mg/kg	19.46	95UCL	4.0E+03	1.6E+01	5E-03	1E-06
348 248TH ST	2-Methylnaphthalene	mg/kg	30.52	95UCL	2.3E+02	--	1E-01	--
348 248TH ST	Benzene	µg/kg	62.22	95UCL	6.7E+04	2.2E+02	9E-04	3E-07
348 248TH ST	Bromodichloromethane	µg/kg	0.19	Max	4.3E+05	4.9E+02	4E-07	4E-10
348 248TH ST	Bromomethane	µg/kg	3.7	Max	8.8E+03	--	4E-04	--
348 248TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
348 248TH ST	Ethylbenzene	µg/kg	92.33	95UCL	3.3E+06	4.8E+03	3E-05	2E-08
348 248TH ST	Naphthalene	mg/kg	10.1	95UCL	1.5E+02	4.0E+00	7E-02	3E-06
348 248TH ST	Pyrene	mg/kg	3.284	95UCL	1.7E+03	--	2E-03	--
348 248TH ST	Tetrachloroethene	µg/kg	0.34	Max	8.6E+04	5.5E+02	4E-06	6E-10
348 248TH ST	Toluene	µg/kg	16.02	95UCL	4.8E+06	--	3E-06	--
348 248TH ST	TPH as Diesel	mg/kg	7606	95UCL	1.3E+03	--	6E+00	--
348 248TH ST	TPH as Gasoline	mg/kg	33.03	95UCL	7.6E+02	--	4E-02	--
348 248TH ST	TPH as Motor Oil	mg/kg	6793	95UCL	3.3E+03	--	2E+00	--
348 248TH ST	Xylenes, Total	µg/kg	380.6	95UCL	5.6E+05	--	7E-04	--
348 249TH ST	1,2,4-Trimethylbenzene	µg/kg	17.12	95UCL	8.3E+04	--	2E-04	--
348 249TH ST	1,3,5-Trimethylbenzene	µg/kg	39	Max	8.5E+04	--	5E-04	--
348 249TH ST	1-Methylnaphthalene	mg/kg	0.229	95UCL	4.0E+03	1.6E+01	6E-05	2E-08
348 249TH ST	2-Methylnaphthalene	mg/kg	0.262	95UCL	2.3E+02	--	1E-03	--
348 249TH ST	Benzene	µg/kg	0.184	95UCL	6.7E+04	2.2E+02	3E-06	8E-10
348 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	1.2E+03	3.5E+01	3E-04	1E-08
348 249TH ST	Bromomethane	µg/kg	300	Max	8.8E+03	--	3E-02	--
348 249TH ST	Chromium, Hexavalent	mg/kg	0.72	Max	2.3E+02	1.3E+00	3E-03	6E-07
348 249TH ST	Ethylbenzene	µg/kg	17	Max	3.3E+06	4.8E+03	5E-06	4E-09

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
348 249TH ST	Naphthalene	mg/kg	0.0894	95UCL	1.5E+02	4.0E+00	6E-04	2E-08
348 249TH ST	Pyrene	mg/kg	0.988	95UCL	1.7E+03	--	6E-04	--
348 249TH ST	Toluene	µg/kg	0.222	95UCL	4.8E+06	--	5E-08	--
348 249TH ST	TPH as Diesel	mg/kg	886.2	95UCL	1.3E+03	--	7E-01	--
348 249TH ST	TPH as Gasoline	mg/kg	1.243	95UCL	7.6E+02	--	2E-03	--
348 249TH ST	TPH as Motor Oil	mg/kg	1883	95UCL	3.3E+03	--	6E-01	--
348 249TH ST	Xylenes, Total	µg/kg	11.23	95UCL	5.6E+05	--	2E-05	--
351 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.174	95UCL	8.3E+04	--	2E-06	--
351 244TH ST	1-Methylnaphthalene	mg/kg	2.346	95UCL	4.0E+03	1.6E+01	6E-04	2E-07
351 244TH ST	2-Methylnaphthalene	mg/kg	3.313	95UCL	2.3E+02	--	1E-02	--
351 244TH ST	Benzene	µg/kg	0.46	95UCL	6.7E+04	2.2E+02	7E-06	2E-09
351 244TH ST	Chromium, Hexavalent	mg/kg	0.195	95UCL	2.3E+02	1.3E+00	8E-04	2E-07
351 244TH ST	Cobalt	mg/kg	11.6	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
351 244TH ST	Ethylbenzene	µg/kg	0.21	Max	3.3E+06	4.8E+03	6E-08	4E-11
351 244TH ST	Naphthalene	mg/kg	1.069	95UCL	1.5E+02	4.0E+00	7E-03	3E-07
351 244TH ST	Pyrene	mg/kg	0.696	95UCL	1.7E+03	--	4E-04	--
351 244TH ST	Toluene	µg/kg	0.361	95UCL	4.8E+06	--	8E-08	--
351 244TH ST	TPH as Diesel	mg/kg	1628	95UCL	1.3E+03	--	1E+00	--
351 244TH ST	TPH as Gasoline	mg/kg	0.21	Max	7.6E+02	--	3E-04	--
351 244TH ST	TPH as Motor Oil	mg/kg	3761	95UCL	3.3E+03	--	1E+00	--
351 244TH ST	Xylenes, Total	µg/kg	0.53	Max	5.6E+05	--	1E-06	--
352 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.501	95UCL	8.3E+04	--	6E-06	--
352 249TH ST	1-Methylnaphthalene	mg/kg	0.0482	95UCL	4.0E+03	1.6E+01	1E-05	3E-09
352 249TH ST	2-Methylnaphthalene	mg/kg	0.116	95UCL	2.3E+02	--	5E-04	--
352 249TH ST	Benzene	µg/kg	0.343	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
352 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.26	Max	1.2E+03	3.5E+01	2E-04	8E-09
352 249TH ST	Chromium, Hexavalent	mg/kg	0.23	Max	2.3E+02	1.3E+00	1E-03	2E-07
352 249TH ST	Ethylbenzene	µg/kg	0.219	95UCL	3.3E+06	4.8E+03	7E-08	5E-11
352 249TH ST	Naphthalene	mg/kg	0.0309	95UCL	1.5E+02	4.0E+00	2E-04	8E-09
352 249TH ST	Pyrene	mg/kg	0.778	95UCL	1.7E+03	--	5E-04	--
352 249TH ST	Toluene	µg/kg	2.541	95UCL	4.8E+06	--	5E-07	--
352 249TH ST	TPH as Diesel	mg/kg	536.2	95UCL	1.3E+03	--	4E-01	--
352 249TH ST	TPH as Gasoline	mg/kg	0.951	95UCL	7.6E+02	--	1E-03	--
352 249TH ST	TPH as Motor Oil	mg/kg	1311	95UCL	3.3E+03	--	4E-01	--
352 249TH ST	Xylenes, Total	µg/kg	0.635	95UCL	5.6E+05	--	1E-06	--
353 249TH ST	1,2,4-Trimethylbenzene	µg/kg	1871	95UCL	8.3E+04	--	2E-02	--
353 249TH ST	1,3,5-Trimethylbenzene	µg/kg	120	Max	8.5E+04	--	1E-03	--
353 249TH ST	1-Methylnaphthalene	mg/kg	5.44	95UCL	4.0E+03	1.6E+01	1E-03	4E-07
353 249TH ST	2-Methylnaphthalene	mg/kg	8.116	95UCL	2.3E+02	--	4E-02	--
353 249TH ST	Benzene	µg/kg	338.8	95UCL	6.7E+04	2.2E+02	5E-03	2E-06
353 249TH ST	Bromomethane	µg/kg	190	Max	8.8E+03	--	2E-02	--
353 249TH ST	Chromium, Hexavalent	mg/kg	0.296	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
353 249TH ST	Ethylbenzene	µg/kg	3200	Max	3.3E+06	4.8E+03	1E-03	7E-07
353 249TH ST	Naphthalene	mg/kg	3.455	95UCL	1.5E+02	4.0E+00	2E-02	9E-07
353 249TH ST	Pyrene	mg/kg	0.57	95UCL	1.7E+03	--	3E-04	--
353 249TH ST	Toluene	µg/kg	0.277	95UCL	4.8E+06	--	6E-08	--
353 249TH ST	TPH as Diesel	mg/kg	2751	95UCL	1.3E+03	--	2E+00	--
353 249TH ST	TPH as Gasoline	mg/kg	167.6	95UCL	7.6E+02	--	2E-01	--
353 249TH ST	TPH as Motor Oil	mg/kg	2918	95UCL	3.3E+03	--	9E-01	--
353 249TH ST	Xylenes, Total	µg/kg	741.8	95UCL	5.6E+05	--	1E-03	--
354 248TH ST	1,2,4-Trimethylbenzene	µg/kg	75.15	95UCL	8.3E+04	--	9E-04	--
354 248TH ST	1,3,5-Trimethylbenzene	µg/kg	120.9	95UCL	8.5E+04	--	1E-03	--
354 248TH ST	1-Methylnaphthalene	mg/kg	7.586	95UCL	4.0E+03	1.6E+01	2E-03	5E-07
354 248TH ST	2-Methylnaphthalene	mg/kg	18.15	95UCL	2.3E+02	--	8E-02	--
354 248TH ST	Benzene	µg/kg	3.274	95UCL	6.7E+04	2.2E+02	5E-05	2E-08
354 248TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.52	Max	1.2E+03	3.5E+01	4E-04	2E-08
354 248TH ST	Chromium, Hexavalent	mg/kg	0.36	Max	2.3E+02	1.3E+00	2E-03	3E-07
354 248TH ST	Ethylbenzene	µg/kg	55.71	95UCL	3.3E+06	4.8E+03	2E-05	1E-08
354 248TH ST	Naphthalene	mg/kg	5.86	95UCL	1.5E+02	4.0E+00	4E-02	2E-06
354 248TH ST	Pyrene	mg/kg	1.612	95UCL	1.7E+03	--	9E-04	--
354 248TH ST	Toluene	µg/kg	0.237	95UCL	4.8E+06	--	5E-08	--
354 248TH ST	TPH as Diesel	mg/kg	4141	95UCL	1.3E+03	--	3E+00	--
354 248TH ST	TPH as Gasoline	mg/kg	41.35	95UCL	7.6E+02	--	5E-02	--

Appendix E
Detailed Risk Calculations

Table E-2
CO-C-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
354 248TH ST	TPH as Motor Oil	mg/kg	3461	95UCL	3.3E+03	--	1E+00	--
354 248TH ST	Xylenes, Total	µg/kg	150	Max	5.6E+05	--	3E-04	--
357 244TH ST	1-Methylnaphthalene	mg/kg	0.0068	Max	4.0E+03	1.6E+01	2E-06	4E-10
357 244TH ST	2-Methylnaphthalene	mg/kg	0.00366	95UCL	2.3E+02	--	2E-05	--
357 244TH ST	Benzene	µg/kg	0.24	Max	6.7E+04	2.2E+02	4E-06	1E-09
357 244TH ST	Chromium, Hexavalent	mg/kg	0.44	Max	2.3E+02	1.3E+00	2E-03	3E-07
357 244TH ST	Cobalt	mg/kg	12.36	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
357 244TH ST	Naphthalene	mg/kg	0.00258	95UCL	1.5E+02	4.0E+00	2E-05	7E-10
357 244TH ST	Pyrene	mg/kg	0.0164	95UCL	1.7E+03	--	1E-05	--
357 244TH ST	Toluene	µg/kg	0.28	Max	4.8E+06	--	6E-08	--
357 244TH ST	TPH as Diesel	mg/kg	33.75	95UCL	1.3E+03	--	3E-02	--
357 244TH ST	TPH as Gasoline	mg/kg	0.0829	95UCL	7.6E+02	--	1E-04	--
357 244TH ST	TPH as Motor Oil	mg/kg	131.7	95UCL	3.3E+03	--	4E-02	--
357 249TH ST	1,2,4-Trimethylbenzene	µg/kg	45	Max	8.3E+04	--	5E-04	--
357 249TH ST	1,3,5-Trimethylbenzene	µg/kg	8.1	Max	8.5E+04	--	1E-04	--
357 249TH ST	1-Methylnaphthalene	mg/kg	0.136	95UCL	4.0E+03	1.6E+01	3E-05	9E-09
357 249TH ST	2-Methylnaphthalene	mg/kg	0.119	95UCL	2.3E+02	--	5E-04	--
357 249TH ST	Benzene	µg/kg	1.934	95UCL	6.7E+04	2.2E+02	3E-05	9E-09
357 249TH ST	Ethylbenzene	µg/kg	14	Max	3.3E+06	4.8E+03	4E-06	3E-09
357 249TH ST	Naphthalene	mg/kg	0.037	95UCL	1.5E+02	4.0E+00	3E-04	9E-09
357 249TH ST	Pyrene	mg/kg	0.7	95UCL	1.7E+03	--	4E-04	--
357 249TH ST	Toluene	µg/kg	0.227	95UCL	4.8E+06	--	5E-08	--
357 249TH ST	TPH as Diesel	mg/kg	347.9	95UCL	1.3E+03	--	3E-01	--
357 249TH ST	TPH as Gasoline	mg/kg	29.76	95UCL	7.6E+02	--	4E-02	--
357 249TH ST	TPH as Motor Oil	mg/kg	1035	95UCL	3.3E+03	--	3E-01	--
357 249TH ST	Xylenes, Total	µg/kg	6.51	95UCL	5.6E+05	--	1E-05	--
358 249TH ST	1,2,4-Trimethylbenzene	µg/kg	196.3	95UCL	8.3E+04	--	2E-03	--
358 249TH ST	1,3,5-Trimethylbenzene	µg/kg	189.4	95UCL	8.5E+04	--	2E-03	--
358 249TH ST	1-Methylnaphthalene	mg/kg	3.34	95UCL	4.0E+03	1.6E+01	8E-04	2E-07
358 249TH ST	2-Methylnaphthalene	mg/kg	4.742	95UCL	2.3E+02	--	2E-02	--
358 249TH ST	Benzene	µg/kg	0.15	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
358 249TH ST	Chromium, Hexavalent	mg/kg	0.44	Max	2.3E+02	1.3E+00	2E-03	3E-07
358 249TH ST	Ethylbenzene	µg/kg	78	Max	3.3E+06	4.8E+03	2E-05	2E-08
358 249TH ST	Naphthalene	mg/kg	1.334	95UCL	1.5E+02	4.0E+00	9E-03	3E-07
358 249TH ST	Pyrene	mg/kg	0.543	95UCL	1.7E+03	--	3E-04	--
358 249TH ST	Tetrachloroethene	µg/kg	2.4	Max	8.6E+04	5.5E+02	3E-05	4E-09
358 249TH ST	Toluene	µg/kg	0.229	95UCL	4.8E+06	--	5E-08	--
358 249TH ST	TPH as Diesel	mg/kg	2541	95UCL	1.3E+03	--	2E+00	--
358 249TH ST	TPH as Gasoline	mg/kg	25.11	95UCL	7.6E+02	--	3E-02	--
358 249TH ST	TPH as Motor Oil	mg/kg	3648	95UCL	3.3E+03	--	1E+00	--
358 249TH ST	Xylenes, Total	µg/kg	105.7	95UCL	5.6E+05	--	2E-04	--
360 248TH ST	1,2,4-Trimethylbenzene	µg/kg	70.41	95UCL	8.3E+04	--	9E-04	--
360 248TH ST	1,3,5-Trimethylbenzene	µg/kg	230	Max	8.5E+04	--	3E-03	--
360 248TH ST	1-Methylnaphthalene	mg/kg	1.658	95UCL	4.0E+03	1.6E+01	4E-04	1E-07
360 248TH ST	2-Methylnaphthalene	mg/kg	2.372	95UCL	2.3E+02	--	1E-02	--
360 248TH ST	Benzene	µg/kg	0.156	95UCL	6.7E+04	2.2E+02	2E-06	7E-10
360 248TH ST	Ethylbenzene	µg/kg	54.68	95UCL	3.3E+06	4.8E+03	2E-05	1E-08
360 248TH ST	Naphthalene	mg/kg	0.731	95UCL	1.5E+02	4.0E+00	5E-03	2E-07
360 248TH ST	Pyrene	mg/kg	0.444	95UCL	1.7E+03	--	3E-04	--
360 248TH ST	Toluene	µg/kg	0.37	Max	4.8E+06	--	8E-08	--
360 248TH ST	TPH as Diesel	mg/kg	1266	95UCL	1.3E+03	--	1E+00	--
360 248TH ST	TPH as Gasoline	mg/kg	110.4	95UCL	7.6E+02	--	2E-01	--
360 248TH ST	TPH as Motor Oil	mg/kg	1375	95UCL	3.3E+03	--	4E-01	--
360 248TH ST	Xylenes, Total	µg/kg	240	Max	5.6E+05	--	4E-04	--
361 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.69	Max	8.3E+04	--	8E-06	--
361 244TH ST	2-Methylnaphthalene	mg/kg	0.00295	95UCL	2.3E+02	--	1E-05	--
361 244TH ST	Benzene	µg/kg	0.17	Max	6.7E+04	2.2E+02	3E-06	8E-10
361 244TH ST	Chromium, Hexavalent	mg/kg	0.76	Max	2.3E+02	1.3E+00	3E-03	6E-07
361 244TH ST	Cobalt	mg/kg	11.81	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
361 244TH ST	Naphthalene	mg/kg	0.027	Max	1.5E+02	4.0E+00	2E-04	7E-09
361 244TH ST	Pyrene	mg/kg	0.0105	95UCL	1.7E+03	--	6E-06	--
361 244TH ST	Toluene	µg/kg	0.17	Max	4.8E+06	--	4E-08	--
361 244TH ST	TPH as Diesel	mg/kg	53.52	95UCL	1.3E+03	--	4E-02	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
361 244TH ST	TPH as Gasoline	mg/kg	0.12	Max	7.6E+02	--	2E-04	--
361 244TH ST	TPH as Motor Oil	mg/kg	193.1	95UCL	3.3E+03	--	6E-02	--
361 244TH ST	Xylenes, Total	µg/kg	0.52	Max	5.6E+05	--	9E-07	--
362 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.16	Max	8.3E+04	--	2E-06	--
362 249TH ST	1-Methylnaphthalene	mg/kg	0.00472	95UCL	4.0E+03	1.6E+01	1E-06	3E-10
362 249TH ST	2-Methylnaphthalene	mg/kg	0.00725	95UCL	2.3E+02	--	3E-05	--
362 249TH ST	Benzene	µg/kg	0.361	95UCL	6.7E+04	2.2E+02	5E-06	2E-09
362 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.2	Max	1.2E+03	3.5E+01	1E-03	4E-08
362 249TH ST	Ethylbenzene	µg/kg	0.19	Max	3.3E+06	4.8E+03	6E-08	4E-11
362 249TH ST	Naphthalene	mg/kg	0.0044	95UCL	1.5E+02	4.0E+00	3E-05	1E-09
362 249TH ST	Pyrene	mg/kg	0.0715	95UCL	1.7E+03	--	4E-05	--
362 249TH ST	Toluene	µg/kg	0.281	95UCL	4.8E+06	--	6E-08	--
362 249TH ST	TPH as Diesel	mg/kg	597.6	95UCL	1.3E+03	--	5E-01	--
362 249TH ST	TPH as Gasoline	mg/kg	0.178	95UCL	7.6E+02	--	2E-04	--
362 249TH ST	TPH as Motor Oil	mg/kg	1873	95UCL	3.3E+03	--	6E-01	--
362 249TH ST	Xylenes, Total	µg/kg	0.27	Max	5.6E+05	--	5E-07	--
363 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.482	95UCL	8.3E+04	--	6E-06	--
363 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.23	Max	8.5E+04	--	3E-06	--
363 249TH ST	1-Methylnaphthalene	mg/kg	0.0989	95UCL	4.0E+03	1.6E+01	3E-05	6E-09
363 249TH ST	2-Methylnaphthalene	mg/kg	0.166	95UCL	2.3E+02	--	7E-04	--
363 249TH ST	Benzene	µg/kg	0.413	95UCL	6.7E+04	2.2E+02	6E-06	2E-09
363 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.457	95UCL	1.2E+03	3.5E+01	4E-04	1E-08
363 249TH ST	Ethylbenzene	µg/kg	0.28	Max	3.3E+06	4.8E+03	9E-08	6E-11
363 249TH ST	Naphthalene	mg/kg	0.039	95UCL	1.5E+02	4.0E+00	3E-04	1E-08
363 249TH ST	Pyrene	mg/kg	0.499	95UCL	1.7E+03	--	3E-04	--
363 249TH ST	Toluene	µg/kg	3.961	95UCL	4.8E+06	--	8E-07	--
363 249TH ST	TPH as Diesel	mg/kg	629	95UCL	1.3E+03	--	5E-01	--
363 249TH ST	TPH as Gasoline	mg/kg	1.326	95UCL	7.6E+02	--	2E-03	--
363 249TH ST	TPH as Motor Oil	mg/kg	1087	95UCL	3.3E+03	--	3E-01	--
363 249TH ST	Xylenes, Total	µg/kg	0.31	95UCL	5.6E+05	--	6E-07	--
364 248TH ST	1,2,4-Trimethylbenzene	µg/kg	1367	95UCL	8.3E+04	--	2E-02	--
364 248TH ST	1,3,5-Trimethylbenzene	µg/kg	244.5	95UCL	8.5E+04	--	3E-03	--
364 248TH ST	1-Methylnaphthalene	mg/kg	3.345	95UCL	4.0E+03	1.6E+01	8E-04	2E-07
364 248TH ST	2-Methylnaphthalene	mg/kg	8.084	95UCL	2.3E+02	--	4E-02	--
364 248TH ST	Benzene	µg/kg	50.09	95UCL	6.7E+04	2.2E+02	8E-04	2E-07
364 248TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.8	Max	1.2E+03	3.5E+01	7E-04	2E-08
364 248TH ST	Bromomethane	µg/kg	190	Max	8.8E+03	--	2E-02	--
364 248TH ST	Ethylbenzene	µg/kg	336.7	95UCL	3.3E+06	4.8E+03	1E-04	7E-08
364 248TH ST	Naphthalene	mg/kg	2.678	95UCL	1.5E+02	4.0E+00	2E-02	7E-07
364 248TH ST	Pyrene	mg/kg	0.932	95UCL	1.7E+03	--	5E-04	--
364 248TH ST	Toluene	µg/kg	3.282	95UCL	4.8E+06	--	7E-07	--
364 248TH ST	TPH as Diesel	mg/kg	4103	95UCL	1.3E+03	--	3E+00	--
364 248TH ST	TPH as Gasoline	mg/kg	113.6	95UCL	7.6E+02	--	2E-01	--
364 248TH ST	TPH as Motor Oil	mg/kg	3373	95UCL	3.3E+03	--	1E+00	--
364 248TH ST	Xylenes, Total	µg/kg	261	95UCL	5.6E+05	--	5E-04	--
367 244TH ST	2-Methylnaphthalene	mg/kg	0.0624	95UCL	2.3E+02	--	3E-04	--
367 244TH ST	Benzene	µg/kg	0.16	Max	6.7E+04	2.2E+02	2E-06	7E-10
367 244TH ST	Pyrene	mg/kg	0.563	95UCL	1.7E+03	--	3E-04	--
367 244TH ST	Toluene	µg/kg	0.18	Max	4.8E+06	--	4E-08	--
367 244TH ST	TPH as Diesel	mg/kg	4973	95UCL	1.3E+03	--	4E+00	--
367 244TH ST	TPH as Motor Oil	mg/kg	13003	95UCL	3.3E+03	--	4E+00	--
367 249TH ST	1,2,4-Trimethylbenzene	µg/kg	2.413	95UCL	8.3E+04	--	3E-05	--
367 249TH ST	1,3,5-Trimethylbenzene	µg/kg	1.8	Max	8.5E+04	--	2E-05	--
367 249TH ST	1-Methylnaphthalene	mg/kg	0.0416	95UCL	4.0E+03	1.6E+01	1E-05	3E-09
367 249TH ST	2-Methylnaphthalene	mg/kg	0.0912	95UCL	2.3E+02	--	4E-04	--
367 249TH ST	Benzene	µg/kg	0.193	95UCL	6.7E+04	2.2E+02	3E-06	9E-10
367 249TH ST	Bromomethane	µg/kg	3.1	Max	8.8E+03	--	4E-04	--
367 249TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
367 249TH ST	Ethylbenzene	µg/kg	26	Max	3.3E+06	4.8E+03	8E-06	5E-09
367 249TH ST	Naphthalene	mg/kg	0.0264	95UCL	1.5E+02	4.0E+00	2E-04	7E-09
367 249TH ST	Pyrene	mg/kg	0.357	95UCL	1.7E+03	--	2E-04	--
367 249TH ST	Toluene	µg/kg	0.193	95UCL	4.8E+06	--	4E-08	--
367 249TH ST	TPH as Diesel	mg/kg	692.2	95UCL	1.3E+03	--	5E-01	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
367 249TH ST	TPH as Gasoline	mg/kg	3.063	95UCL	7.6E+02	--	4E-03	--
367 249TH ST	TPH as Motor Oil	mg/kg	1427	95UCL	3.3E+03	--	4E-01	--
367 249TH ST	Xylenes, Total	µg/kg	38	Max	5.6E+05	--	7E-05	--
368 249TH ST	1,2,4-Trimethylbenzene	µg/kg	4400	95UCL	8.3E+04	--	5E-02	--
368 249TH ST	1,3,5-Trimethylbenzene	µg/kg	1805	95UCL	8.5E+04	--	2E-02	--
368 249TH ST	1-Methylnaphthalene	mg/kg	3.867	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
368 249TH ST	2-Methylnaphthalene	mg/kg	5.618	95UCL	2.3E+02	--	2E-02	--
368 249TH ST	Benzene	µg/kg	179.7	95UCL	6.7E+04	2.2E+02	3E-03	8E-07
368 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.7	Max	1.2E+03	3.5E+01	1E-03	5E-08
368 249TH ST	Chromium, Hexavalent	mg/kg	0.32	Max	2.3E+02	1.3E+00	1E-03	3E-07
368 249TH ST	Ethylbenzene	µg/kg	1311	95UCL	3.3E+06	4.8E+03	4E-04	3E-07
368 249TH ST	Methylene Chloride	µg/kg	51	Max	3.6E+05	5.3E+03	1E-04	1E-08
368 249TH ST	Naphthalene	mg/kg	2.15	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
368 249TH ST	Pyrene	mg/kg	7.244	95UCL	1.7E+03	--	4E-03	--
368 249TH ST	Toluene	µg/kg	92.58	95UCL	4.8E+06	--	2E-05	--
368 249TH ST	TPH as Diesel	mg/kg	4362	95UCL	1.3E+03	--	3E+00	--
368 249TH ST	TPH as Gasoline	mg/kg	458.7	95UCL	7.6E+02	--	6E-01	--
368 249TH ST	TPH as Motor Oil	mg/kg	5270	95UCL	3.3E+03	--	2E+00	--
368 249TH ST	Xylenes, Total	µg/kg	8326	95UCL	5.6E+05	--	2E-02	--
373 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.249	95UCL	8.3E+04	--	3E-06	--
373 249TH ST	1-Methylnaphthalene	mg/kg	1.284	95UCL	4.0E+03	1.6E+01	3E-04	8E-08
373 249TH ST	2-Methylnaphthalene	mg/kg	1.793	95UCL	2.3E+02	--	8E-03	--
373 249TH ST	Benzene	µg/kg	0.257	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
373 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.2	Max	1.2E+03	3.5E+01	2E-04	6E-09
373 249TH ST	Bromomethane	µg/kg	2.9	Max	8.8E+03	--	3E-04	--
373 249TH ST	Ethylbenzene	µg/kg	0.32	Max	3.3E+06	4.8E+03	1E-07	7E-11
373 249TH ST	Methylene Chloride	µg/kg	3.2	Max	3.6E+05	5.3E+03	9E-06	6E-10
373 249TH ST	Naphthalene	mg/kg	0.56	95UCL	1.5E+02	4.0E+00	4E-03	1E-07
373 249TH ST	Pyrene	mg/kg	0.281	95UCL	1.7E+03	--	2E-04	--
373 249TH ST	Toluene	µg/kg	0.487	95UCL	4.8E+06	--	1E-07	--
373 249TH ST	TPH as Diesel	mg/kg	1069	95UCL	1.3E+03	--	8E-01	--
373 249TH ST	TPH as Gasoline	mg/kg	0.821	95UCL	7.6E+02	--	1E-03	--
373 249TH ST	TPH as Motor Oil	mg/kg	1579	95UCL	3.3E+03	--	5E-01	--
373 249TH ST	Xylenes, Total	µg/kg	0.27	Max	5.6E+05	--	5E-07	--
374 248TH ST	1,2,4-Trimethylbenzene	µg/kg	579.6	95UCL	8.3E+04	--	7E-03	--
374 248TH ST	1,3,5-Trimethylbenzene	µg/kg	32.24	95UCL	8.5E+04	--	4E-04	--
374 248TH ST	1-Methylnaphthalene	mg/kg	2.239	95UCL	4.0E+03	1.6E+01	6E-04	1E-07
374 248TH ST	2-Methylnaphthalene	mg/kg	2.65	95UCL	2.3E+02	--	1E-02	--
374 248TH ST	Benzene	µg/kg	13.59	95UCL	6.7E+04	2.2E+02	2E-04	6E-08
374 248TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.4	Max	1.2E+03	3.5E+01	3E-04	1E-08
374 248TH ST	Ethylbenzene	µg/kg	62.41	95UCL	3.3E+06	4.8E+03	2E-05	1E-08
374 248TH ST	Naphthalene	mg/kg	0.907	95UCL	1.5E+02	4.0E+00	6E-03	2E-07
374 248TH ST	Pyrene	mg/kg	6.761	95UCL	1.7E+03	--	4E-03	--
374 248TH ST	Toluene	µg/kg	3.453	95UCL	4.8E+06	--	7E-07	--
374 248TH ST	TPH as Diesel	mg/kg	4145	95UCL	1.3E+03	--	3E+00	--
374 248TH ST	TPH as Gasoline	mg/kg	57.26	95UCL	7.6E+02	--	8E-02	--
374 248TH ST	TPH as Motor Oil	mg/kg	6513	95UCL	3.3E+03	--	2E+00	--
374 248TH ST	Xylenes, Total	µg/kg	269.8	95UCL	5.6E+05	--	5E-04	--
374 249TH ST	1,2,4-Trimethylbenzene	µg/kg	2746	95UCL	8.3E+04	--	3E-02	--
374 249TH ST	1,3,5-Trimethylbenzene	µg/kg	7400	Max	8.5E+04	--	9E-02	--
374 249TH ST	1-Methylnaphthalene	mg/kg	2.114	95UCL	4.0E+03	1.6E+01	5E-04	1E-07
374 249TH ST	2-Methylnaphthalene	mg/kg	3.486	95UCL	2.3E+02	--	2E-02	--
374 249TH ST	Benzene	µg/kg	178.5	95UCL	6.7E+04	2.2E+02	3E-03	8E-07
374 249TH ST	Ethylbenzene	µg/kg	4900	Max	3.3E+06	4.8E+03	2E-03	1E-06
374 249TH ST	Naphthalene	mg/kg	1.764	95UCL	1.5E+02	4.0E+00	1E-02	4E-07
374 249TH ST	Pyrene	mg/kg	0.547	95UCL	1.7E+03	--	3E-04	--
374 249TH ST	Toluene	µg/kg	21.17	95UCL	4.8E+06	--	4E-06	--
374 249TH ST	TPH as Diesel	mg/kg	2913	95UCL	1.3E+03	--	2E+00	--
374 249TH ST	TPH as Gasoline	mg/kg	356.8	95UCL	7.6E+02	--	5E-01	--
374 249TH ST	TPH as Motor Oil	mg/kg	3119	95UCL	3.3E+03	--	1E+00	--
374 249TH ST	Xylenes, Total	µg/kg	20000	Max	5.6E+05	--	4E-02	--
377 244TH ST	1-Methylnaphthalene	mg/kg	0.0036	Max	4.0E+03	1.6E+01	9E-07	2E-10
377 244TH ST	2-Methylnaphthalene	mg/kg	0.0147	95UCL	2.3E+02	--	6E-05	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
377 244TH ST	Benzene	µg/kg	0.19	Max	6.7E+04	2.2E+02	3E-06	9E-10
377 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.51	Max	1.2E+03	3.5E+01	4E-04	2E-08
377 244TH ST	Chromium, Hexavalent	mg/kg	0.4	Max	2.3E+02	1.3E+00	2E-03	3E-07
377 244TH ST	Cobalt	mg/kg	12.18	95UCL	2.3E+01	3.1E+04	5E-01	4E-10
377 244TH ST	Naphthalene	mg/kg	0.00182	95UCL	1.5E+02	4.0E+00	1E-05	5E-10
377 244TH ST	Pyrene	mg/kg	0.147	95UCL	1.7E+03	--	9E-05	--
377 244TH ST	Toluene	µg/kg	0.21	Max	4.8E+06	--	4E-08	--
377 244TH ST	TPH as Diesel	mg/kg	142	95UCL	1.3E+03	--	1E-01	--
377 244TH ST	TPH as Gasoline	mg/kg	0.088	Max	7.6E+02	--	1E-04	--
377 244TH ST	TPH as Motor Oil	mg/kg	394.1	95UCL	3.3E+03	--	1E-01	--
377 249TH ST	1,2,4-Trimethylbenzene	µg/kg	78.4	95UCL	8.3E+04	--	1E-03	--
377 249TH ST	1,3,5-Trimethylbenzene	µg/kg	9.515	95UCL	8.5E+04	--	1E-04	--
377 249TH ST	1-Methylnaphthalene	mg/kg	4.22	95UCL	4.0E+03	1.6E+01	1E-03	3E-07
377 249TH ST	2-Methylnaphthalene	mg/kg	6.1	95UCL	2.3E+02	--	3E-02	--
377 249TH ST	Benzene	µg/kg	0.587	95UCL	6.7E+04	2.2E+02	9E-06	3E-09
377 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.4	Max	1.2E+03	3.5E+01	3E-04	1E-08
377 249TH ST	Ethylbenzene	µg/kg	11.97	95UCL	3.3E+06	4.8E+03	4E-06	3E-09
377 249TH ST	Naphthalene	mg/kg	1.976	95UCL	1.5E+02	4.0E+00	1E-02	5E-07
377 249TH ST	Pyrene	mg/kg	0.775	95UCL	1.7E+03	--	5E-04	--
377 249TH ST	Toluene	µg/kg	0.17	Max	4.8E+06	--	4E-08	--
377 249TH ST	TPH as Diesel	mg/kg	3702	95UCL	1.3E+03	--	3E+00	--
377 249TH ST	TPH as Gasoline	mg/kg	22.02	95UCL	7.6E+02	--	3E-02	--
377 249TH ST	TPH as Motor Oil	mg/kg	3685	95UCL	3.3E+03	--	1E+00	--
377 249TH ST	Xylenes, Total	µg/kg	160	Max	5.6E+05	--	3E-04	--
378 249TH ST	1,2,4-Trimethylbenzene	µg/kg	18.01	95UCL	8.3E+04	--	2E-04	--
378 249TH ST	1,3,5-Trimethylbenzene	µg/kg	3.872	95UCL	8.5E+04	--	5E-05	--
378 249TH ST	1-Methylnaphthalene	mg/kg	2.135	95UCL	4.0E+03	1.6E+01	5E-04	1E-07
378 249TH ST	2-Methylnaphthalene	mg/kg	2.871	95UCL	2.3E+02	--	1E-02	--
378 249TH ST	Benzene	µg/kg	2.918	95UCL	6.7E+04	2.2E+02	4E-05	1E-08
378 249TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	2.3E+02	1.3E+00	1E-03	2E-07
378 249TH ST	Ethylbenzene	µg/kg	4.684	95UCL	3.3E+06	4.8E+03	1E-06	1E-09
378 249TH ST	Naphthalene	mg/kg	1.1	95UCL	1.5E+02	4.0E+00	7E-03	3E-07
378 249TH ST	Pyrene	mg/kg	0.216	95UCL	1.7E+03	--	1E-04	--
378 249TH ST	Toluene	µg/kg	1.158	95UCL	4.8E+06	--	2E-07	--
378 249TH ST	TPH as Diesel	mg/kg	2795	95UCL	1.3E+03	--	2E+00	--
378 249TH ST	TPH as Gasoline	mg/kg	111.6	95UCL	7.6E+02	--	2E-01	--
378 249TH ST	TPH as Motor Oil	mg/kg	2783	95UCL	3.3E+03	--	8E-01	--
378 249TH ST	Xylenes, Total	µg/kg	27.91	95UCL	5.6E+05	--	5E-05	--
383 249TH ST	1,2,4-Trimethylbenzene	µg/kg	13.82	95UCL	8.3E+04	--	2E-04	--
383 249TH ST	1,3,5-Trimethylbenzene	µg/kg	24	Max	8.5E+04	--	3E-04	--
383 249TH ST	1-Methylnaphthalene	mg/kg	0.376	95UCL	4.0E+03	1.6E+01	9E-05	2E-08
383 249TH ST	2-Methylnaphthalene	mg/kg	0.161	95UCL	2.3E+02	--	7E-04	--
383 249TH ST	Benzene	µg/kg	0.263	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
383 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	1.2E+03	3.5E+01	1E-04	5E-09
383 249TH ST	Ethylbenzene	µg/kg	81	Max	3.3E+06	4.8E+03	3E-05	2E-08
383 249TH ST	Naphthalene	mg/kg	0.101	95UCL	1.5E+02	4.0E+00	7E-04	3E-08
383 249TH ST	Pyrene	mg/kg	1.771	95UCL	1.7E+03	--	1E-03	--
383 249TH ST	Toluene	µg/kg	0.315	95UCL	4.8E+06	--	7E-08	--
383 249TH ST	TPH as Diesel	mg/kg	1650	95UCL	1.3E+03	--	1E+00	--
383 249TH ST	TPH as Gasoline	mg/kg	46.4	95UCL	7.6E+02	--	6E-02	--
383 249TH ST	TPH as Motor Oil	mg/kg	2093	95UCL	3.3E+03	--	6E-01	--
383 249TH ST	Xylenes, Total	µg/kg	8.706	95UCL	5.6E+05	--	2E-05	--
402 249TH ST	1,2,4-Trimethylbenzene	µg/kg	31.47	95UCL	8.3E+04	--	4E-04	--
402 249TH ST	1,3,5-Trimethylbenzene	µg/kg	8.1	Max	8.5E+04	--	1E-04	--
402 249TH ST	1-Methylnaphthalene	mg/kg	3.223	95UCL	4.0E+03	1.6E+01	8E-04	2E-07
402 249TH ST	2-Methylnaphthalene	mg/kg	4.275	95UCL	2.3E+02	--	2E-02	--
402 249TH ST	Benzene	µg/kg	0.567	95UCL	6.7E+04	2.2E+02	9E-06	3E-09
402 249TH ST	Ethylbenzene	µg/kg	220	Max	3.3E+06	4.8E+03	7E-05	5E-08
402 249TH ST	Naphthalene	mg/kg	1.274	95UCL	1.5E+02	4.0E+00	9E-03	3E-07
402 249TH ST	Pyrene	mg/kg	0.446	95UCL	1.7E+03	--	3E-04	--
402 249TH ST	Toluene	µg/kg	0.284	95UCL	4.8E+06	--	6E-08	--
402 249TH ST	TPH as Diesel	mg/kg	2640	95UCL	1.3E+03	--	2E+00	--
402 249TH ST	TPH as Gasoline	mg/kg	66.85	95UCL	7.6E+02	--	9E-02	--

Appendix E
Detailed Risk Calculations

Table E-2
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Soil ≤5 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF350)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
402 249TH ST	TPH as Motor Oil	mg/kg	3292	95UCL	3.3E+03	--	1E+00	--
402 249TH ST	Xylenes, Total	µg/kg	26.6	95UCL	5.6E+05	--	5E-05	--
408 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.246	95UCL	8.3E+04	--	3E-06	--
408 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.15	Max	8.5E+04	--	2E-06	--
408 249TH ST	1-Methylnaphthalene	mg/kg	0.0106	95UCL	4.0E+03	1.6E+01	3E-06	7E-10
408 249TH ST	2-Methylnaphthalene	mg/kg	0.043	95UCL	2.3E+02	--	2E-04	--
408 249TH ST	Benzene	µg/kg	2.024	95UCL	6.7E+04	2.2E+02	3E-05	9E-09
408 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.4	Max	1.2E+03	3.5E+01	1E-03	4E-08
408 249TH ST	Bromodichloromethane	µg/kg	0.3	Max	4.3E+05	4.9E+02	7E-07	6E-10
408 249TH ST	Chromium, Hexavalent	mg/kg	0.37	Max	2.3E+02	1.3E+00	2E-03	3E-07
408 249TH ST	Naphthalene	mg/kg	0.0123	95UCL	1.5E+02	4.0E+00	8E-05	3E-09
408 249TH ST	Pyrene	mg/kg	0.278	95UCL	1.7E+03	--	2E-04	--
408 249TH ST	Toluene	µg/kg	0.793	95UCL	4.8E+06	--	2E-07	--
408 249TH ST	TPH as Diesel	mg/kg	107.7	95UCL	1.3E+03	--	8E-02	--
408 249TH ST	TPH as Gasoline	mg/kg	0.16	Max	7.6E+02	--	2E-04	--
408 249TH ST	TPH as Motor Oil	mg/kg	253.8	95UCL	3.3E+03	--	8E-02	--
408 249TH ST	Xylenes, Total	µg/kg	1.1	Max	5.6E+05	--	2E-06	--
412 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.301	95UCL	8.3E+04	--	4E-06	--
412 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.29	Max	8.5E+04	--	3E-06	--
412 249TH ST	1,4-Dichlorobenzene	µg/kg	0.19	Max	3.6E+06	2.8E+03	5E-08	7E-11
412 249TH ST	1-Methylnaphthalene	mg/kg	0.323	95UCL	4.0E+03	1.6E+01	8E-05	2E-08
412 249TH ST	2,4-Dinitrotoluene	mg/kg	0.18	Max	1.2E+02	1.6E+00	2E-03	1E-07
412 249TH ST	2-Methylnaphthalene	mg/kg	0.148	95UCL	2.3E+02	--	7E-04	--
412 249TH ST	Benzene	µg/kg	0.25	95UCL	6.7E+04	2.2E+02	4E-06	1E-09
412 249TH ST	Bromomethane	µg/kg	1.9	Max	8.8E+03	--	2E-04	--
412 249TH ST	Chromium, Hexavalent	mg/kg	0.235	95UCL	2.3E+02	1.3E+00	1E-03	2E-07
412 249TH ST	Ethylbenzene	µg/kg	0.79	Max	3.3E+06	4.8E+03	2E-07	2E-10
412 249TH ST	Naphthalene	mg/kg	0.0632	95UCL	1.5E+02	4.0E+00	4E-04	2E-08
412 249TH ST	Pyrene	mg/kg	0.676	95UCL	1.7E+03	--	4E-04	--
412 249TH ST	Toluene	µg/kg	0.171	95UCL	4.8E+06	--	4E-08	--
412 249TH ST	TPH as Diesel	mg/kg	1577	95UCL	1.3E+03	--	1E+00	--
412 249TH ST	TPH as Gasoline	mg/kg	0.0919	95UCL	7.6E+02	--	1E-04	--
412 249TH ST	TPH as Motor Oil	mg/kg	3709	95UCL	3.3E+03	--	1E+00	--
412 249TH ST	Xylenes, Total	µg/kg	0.76	Max	5.6E+05	--	1E-06	--

Notes:

" -- " not applicable; COC = Constituent of Concern

Soil ≤5 ft bgs = less than or equal to 5 feet below ground surface

EF350 = exposure frequency of 350 days per year; 95UCL = 95 percent upper confidence limit

SSCG = Site-specific cleanup goals; SSCGnc = based on noncancer effects; SSCGc = based on cancer effects

EPC = exposure point concentration based on the 95UCLs; if not available, maximum detect (Max) was used as the EPC.

Bold + Shaded if COC-specific noncancer hazard >1 or COC-specific cancer risk >1E-06

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24401 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0092	Max	3.5E+05	1.4E+03	3E-08	7E-12
24401 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.02	Max	2.0E+04	--	1E-06	--
24401 MARBELLA AVE	Benzene	µg/kg	0.44	Max	5.8E+06	1.9E+04	8E-08	2E-11
24401 MARBELLA AVE	Cobalt	mg/kg	15	Max	2.1E+03	2.7E+06	7E-03	6E-12
24401 MARBELLA AVE	Naphthalene	mg/kg	0.016	Max	1.3E+04	3.5E+02	1E-06	5E-11
24401 MARBELLA AVE	Pyrene	mg/kg	0.001	Max	1.5E+05	--	7E-09	--
24401 MARBELLA AVE	Toluene	µg/kg	0.23	Max	4.2E+08	--	6E-10	--
24401 MARBELLA AVE	TPH as Gasoline	mg/kg	0.065	Max	6.6E+04	--	1E-06	--
24401 MARBELLA AVE	Vanadium	mg/kg	57.6	Max	3.4E+04	--	2E-03	--
24402 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1.035	95UCL	7.2E+06	--	1E-07	--
24402 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.66	Max	7.4E+06	--	9E-08	--
24402 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	12	Max	3.5E+05	1.4E+03	3E-05	9E-09
24402 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	3.306	95UCL	2.0E+04	--	2E-04	--
24402 NEPTUNE AVE	Benzene	µg/kg	0.278	95UCL	5.8E+06	1.9E+04	5E-08	1E-11
24402 NEPTUNE AVE	Cobalt	mg/kg	10.91	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24402 NEPTUNE AVE	Ethylbenzene	µg/kg	19.85	95UCL	2.9E+08	4.2E+05	7E-08	5E-11
24402 NEPTUNE AVE	Naphthalene	mg/kg	0.972	95UCL	1.3E+04	3.5E+02	7E-05	3E-09
24402 NEPTUNE AVE	Pyrene	mg/kg	3.526	95UCL	1.5E+05	--	2E-05	--
24402 NEPTUNE AVE	Toluene	µg/kg	0.217	95UCL	4.2E+08	--	5E-10	--
24402 NEPTUNE AVE	TPH as Diesel	mg/kg	7376	95UCL	1.1E+05	--	7E-02	--
24402 NEPTUNE AVE	TPH as Gasoline	mg/kg	67.16	95UCL	6.6E+04	--	1E-03	--
24402 NEPTUNE AVE	TPH as Motor Oil	mg/kg	8158	95UCL	2.9E+05	--	3E-02	--
24402 NEPTUNE AVE	Xylenes, Total	µg/kg	2.478	95UCL	4.9E+07	--	5E-08	--
24402 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.252	95UCL	7.2E+06	--	4E-08	--
24402 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.21	Max	7.4E+06	--	3E-08	--
24402 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0038	Max	3.5E+05	1.4E+03	1E-08	3E-12
24402 PANAMA AVE	2,4-Dinitrotoluene	mg/kg	0.066	Max	1.1E+04	1.4E+02	6E-06	5E-10
24402 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0034	95UCL	2.0E+04	--	2E-07	--
24402 PANAMA AVE	Benzene	µg/kg	0.221	95UCL	5.8E+06	1.9E+04	4E-08	1E-11
24402 PANAMA AVE	Cobalt	mg/kg	12.3	95UCL	2.1E+03	2.7E+06	6E-03	5E-12
24402 PANAMA AVE	Ethylbenzene	µg/kg	0.54	Max	2.9E+08	4.2E+05	2E-09	1E-12
24402 PANAMA AVE	Naphthalene	mg/kg	0.00268	95UCL	1.3E+04	3.5E+02	2E-07	8E-12
24402 PANAMA AVE	Pyrene	mg/kg	0.0702	95UCL	1.5E+05	--	5E-07	--
24402 PANAMA AVE	Toluene	µg/kg	0.366	95UCL	4.2E+08	--	9E-10	--
24402 PANAMA AVE	TPH as Diesel	mg/kg	12	Max	1.1E+05	--	1E-04	--
24402 PANAMA AVE	TPH as Gasoline	mg/kg	0.11	Max	6.6E+04	--	2E-06	--
24402 PANAMA AVE	TPH as Motor Oil	mg/kg	51	Max	2.9E+05	--	2E-04	--
24402 PANAMA AVE	Trichloroethene	µg/kg	0.17	Max	5.0E+05	1.0E+05	3E-07	2E-12
24402 PANAMA AVE	Vanadium	mg/kg	45.43	95UCL	3.4E+04	--	1E-03	--
24402 PANAMA AVE	Xylenes, Total	µg/kg	0.425	95UCL	4.9E+07	--	9E-09	--
24402 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	32646	95UCL	7.2E+06	--	5E-03	--
24402 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	5918	95UCL	7.4E+06	--	8E-04	--
24402 RAVENNA AVE	1-Methylnaphthalene	mg/kg	56.19	95UCL	3.5E+05	1.4E+03	2E-04	4E-08
24402 RAVENNA AVE	2-Methylnaphthalene	mg/kg	80.83	95UCL	2.0E+04	--	4E-03	--
24402 RAVENNA AVE	Benzene	µg/kg	12727	95UCL	5.8E+06	1.9E+04	2E-03	7E-07
24402 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.17	Max	2.1E+04	1.1E+02	8E-06	2E-09
24402 RAVENNA AVE	Cobalt	mg/kg	12.36	95UCL	2.1E+03	2.7E+06	6E-03	5E-12
24402 RAVENNA AVE	Ethylbenzene	µg/kg	19470	95UCL	2.9E+08	4.2E+05	7E-05	5E-08
24402 RAVENNA AVE	Naphthalene	mg/kg	34.81	95UCL	1.3E+04	3.5E+02	3E-03	1E-07
24402 RAVENNA AVE	Pyrene	mg/kg	1.314	95UCL	1.5E+05	--	9E-06	--
24402 RAVENNA AVE	Toluene	µg/kg	81.09	95UCL	4.2E+08	--	2E-07	--
24402 RAVENNA AVE	TPH as Diesel	mg/kg	21795	95UCL	1.1E+05	--	2E-01	--
24402 RAVENNA AVE	TPH as Gasoline	mg/kg	3903	95UCL	6.6E+04	--	6E-02	--
24402 RAVENNA AVE	TPH as Motor Oil	mg/kg	18655	95UCL	2.9E+05	--	6E-02	--
24402 RAVENNA AVE	Xylenes, Total	µg/kg	15547	95UCL	4.9E+07	--	3E-04	--
24403 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	18000	95UCL	7.2E+06	--	3E-03	--
24403 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	3993	95UCL	7.4E+06	--	5E-04	--
24403 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	14.31	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24403 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	21.93	95UCL	2.0E+04	--	1E-03	--
24403 NEPTUNE AVE	Benzene	µg/kg	4198	95UCL	5.8E+06	1.9E+04	7E-04	2E-07
24403 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.1E+04	1.1E+02	1E-05	2E-09
24403 NEPTUNE AVE	Cobalt	mg/kg	14.4	95UCL	2.1E+03	2.7E+06	7E-03	5E-12

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24403 NEPTUNE AVE	Ethylbenzene	µg/kg	5324	95UCL	2.9E+08	4.2E+05	2E-05	1E-08
24403 NEPTUNE AVE	Naphthalene	mg/kg	9.222	95UCL	1.3E+04	3.5E+02	7E-04	3E-08
24403 NEPTUNE AVE	Pyrene	mg/kg	2.471	95UCL	1.5E+05	--	2E-05	--
24403 NEPTUNE AVE	Toluene	µg/kg	2100	Max	4.2E+08	--	5E-06	--
24403 NEPTUNE AVE	TPH as Diesel	mg/kg	14785	95UCL	1.1E+05	--	1E-01	--
24403 NEPTUNE AVE	TPH as Gasoline	mg/kg	1343	95UCL	6.6E+04	--	2E-02	--
24403 NEPTUNE AVE	TPH as Motor Oil	mg/kg	16210	95UCL	2.9E+05	--	6E-02	--
24403 NEPTUNE AVE	Xylenes, Total	µg/kg	22000	95UCL	4.9E+07	--	5E-04	--
24403 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1069	95UCL	7.2E+06	--	2E-04	--
24403 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	2100	Max	7.4E+06	--	3E-04	--
24403 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.925	95UCL	3.5E+05	1.4E+03	1E-05	3E-09
24403 RAVENNA AVE	2-Methylnaphthalene	mg/kg	5.328	95UCL	2.0E+04	--	3E-04	--
24403 RAVENNA AVE	Benzene	µg/kg	25.56	95UCL	5.8E+06	1.9E+04	4E-06	1E-09
24403 RAVENNA AVE	Bromomethane	µg/kg	2.4	Max	7.7E+05	--	3E-06	--
24403 RAVENNA AVE	Cobalt	mg/kg	10.76	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24403 RAVENNA AVE	Ethylbenzene	µg/kg	481.5	95UCL	2.9E+08	4.2E+05	2E-06	1E-09
24403 RAVENNA AVE	Naphthalene	mg/kg	2.255	95UCL	1.3E+04	3.5E+02	2E-04	7E-09
24403 RAVENNA AVE	Pyrene	mg/kg	1.551	95UCL	1.5E+05	--	1E-05	--
24403 RAVENNA AVE	Toluene	µg/kg	4.486	95UCL	4.2E+08	--	1E-08	--
24403 RAVENNA AVE	TPH as Diesel	mg/kg	4396	95UCL	1.1E+05	--	4E-02	--
24403 RAVENNA AVE	TPH as Gasoline	mg/kg	257.4	95UCL	6.6E+04	--	4E-03	--
24403 RAVENNA AVE	TPH as Motor Oil	mg/kg	4680	95UCL	2.9E+05	--	2E-02	--
24403 RAVENNA AVE	Vinyl Chloride	µg/kg	0.18	Max	6.4E+06	2.8E+03	3E-08	7E-11
24403 RAVENNA AVE	Xylenes, Total	µg/kg	711.9	95UCL	4.9E+07	--	2E-05	--
24405 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0021	Max	2.0E+04	--	1E-07	--
24405 MARBELLA AVE	Benzene	µg/kg	0.15	Max	5.8E+06	1.9E+04	3E-08	8E-12
24405 MARBELLA AVE	Cobalt	mg/kg	16.5	Max	2.1E+03	2.7E+06	8E-03	6E-12
24405 MARBELLA AVE	Naphthalene	mg/kg	0.0015	Max	1.3E+04	3.5E+02	1E-07	4E-12
24405 MARBELLA AVE	Pyrene	mg/kg	0.034	Max	1.5E+05	--	2E-07	--
24405 MARBELLA AVE	Toluene	µg/kg	0.21	Max	4.2E+08	--	5E-10	--
24406 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	18000	Max	7.2E+06	--	3E-03	--
24406 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	6000	Max	7.4E+06	--	8E-04	--
24406 MARBELLA AVE	1-Methylnaphthalene	mg/kg	18	Max	3.5E+05	1.4E+03	5E-05	1E-08
24406 MARBELLA AVE	2-Methylnaphthalene	mg/kg	27	Max	2.0E+04	--	1E-03	--
24406 MARBELLA AVE	Benzene	µg/kg	11000	Max	5.8E+06	1.9E+04	2E-03	6E-07
24406 MARBELLA AVE	Bromomethane	µg/kg	380	Max	7.7E+05	--	5E-04	--
24406 MARBELLA AVE	Cobalt	mg/kg	9.229	95UCL	2.1E+03	2.7E+06	5E-03	3E-12
24406 MARBELLA AVE	Ethylbenzene	µg/kg	15000	Max	2.9E+08	4.2E+05	5E-05	4E-08
24406 MARBELLA AVE	Naphthalene	mg/kg	14	Max	1.3E+04	3.5E+02	1E-03	4E-08
24406 MARBELLA AVE	Pyrene	mg/kg	0.406	95UCL	1.5E+05	--	3E-06	--
24406 MARBELLA AVE	Toluene	µg/kg	9400	Max	4.2E+08	--	2E-05	--
24406 MARBELLA AVE	TPH as Diesel	mg/kg	15000	Max	1.1E+05	--	1E-01	--
24406 MARBELLA AVE	TPH as Gasoline	mg/kg	3100	Max	6.6E+04	--	5E-02	--
24406 MARBELLA AVE	TPH as Motor Oil	mg/kg	5355	95UCL	2.9E+05	--	2E-02	--
24406 MARBELLA AVE	Xylenes, Total	µg/kg	27000	Max	4.9E+07	--	6E-04	--
24406 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	2195	95UCL	7.2E+06	--	3E-04	--
24406 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	720	Max	7.4E+06	--	1E-04	--
24406 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	4.776	95UCL	3.5E+05	1.4E+03	1E-05	4E-09
24406 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	6.851	95UCL	2.0E+04	--	3E-04	--
24406 NEPTUNE AVE	Benzene	µg/kg	79.6	95UCL	5.8E+06	1.9E+04	1E-05	4E-09
24406 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.16	Max	1.1E+05	3.0E+03	2E-06	5E-11
24406 NEPTUNE AVE	Cobalt	mg/kg	12.6	95UCL	2.1E+03	2.7E+06	6E-03	5E-12
24406 NEPTUNE AVE	Ethylbenzene	µg/kg	1299	95UCL	2.9E+08	4.2E+05	5E-06	3E-09
24406 NEPTUNE AVE	Naphthalene	mg/kg	2.205	95UCL	1.3E+04	3.5E+02	2E-04	6E-09
24406 NEPTUNE AVE	Pyrene	mg/kg	2.574	95UCL	1.5E+05	--	2E-05	--
24406 NEPTUNE AVE	TPH as Diesel	mg/kg	20202	95UCL	1.1E+05	--	2E-01	--
24406 NEPTUNE AVE	TPH as Gasoline	mg/kg	341.2	95UCL	6.6E+04	--	5E-03	--
24406 NEPTUNE AVE	TPH as Motor Oil	mg/kg	43095	95UCL	2.9E+05	--	2E-01	--
24406 NEPTUNE AVE	Xylenes, Total	µg/kg	1286	95UCL	4.9E+07	--	3E-05	--
24406 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0013	Max	2.0E+04	--	7E-08	--
24406 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.062	Max	2.1E+04	1.1E+02	3E-06	6E-10
24406 PANAMA AVE	Cobalt	mg/kg	7.81	Max	2.1E+03	2.7E+06	4E-03	3E-12

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24406 PANAMA AVE	Naphthalene	mg/kg	0.00047	Max	1.3E+04	3.5E+02	4E-08	1E-12
24406 PANAMA AVE	Pyrene	mg/kg	0.012	Max	1.5E+05	--	8E-08	--
24406 PANAMA AVE	TPH as Diesel	mg/kg	15	Max	1.1E+05	--	1E-04	--
24406 PANAMA AVE	TPH as Motor Oil	mg/kg	49	Max	2.9E+05	--	2E-04	--
24406 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	110	Max	7.2E+06	--	2E-05	--
24406 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	16	Max	7.4E+06	--	2E-06	--
24406 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.987	95UCL	3.5E+05	1.4E+03	6E-06	2E-09
24406 RAVENNA AVE	2-Methylnaphthalene	mg/kg	3.9	95UCL	2.0E+04	--	2E-04	--
24406 RAVENNA AVE	Ethylbenzene	µg/kg	360	Max	2.9E+08	4.2E+05	1E-06	9E-10
24406 RAVENNA AVE	Naphthalene	mg/kg	0.776	95UCL	1.3E+04	3.5E+02	6E-05	2E-09
24406 RAVENNA AVE	Pyrene	mg/kg	0.464	95UCL	1.5E+05	--	3E-06	--
24406 RAVENNA AVE	Toluene	µg/kg	14	Max	4.2E+08	--	3E-08	--
24406 RAVENNA AVE	TPH as Diesel	mg/kg	3398	95UCL	1.1E+05	--	3E-02	--
24406 RAVENNA AVE	TPH as Gasoline	mg/kg	9.995	95UCL	6.6E+04	--	2E-04	--
24406 RAVENNA AVE	TPH as Motor Oil	mg/kg	4904	95UCL	2.9E+05	--	2E-02	--
24406 RAVENNA AVE	Xylenes, Total	µg/kg	110	Max	4.9E+07	--	2E-06	--
24409 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	120	Max	7.2E+06	--	2E-05	--
24409 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.19	Max	7.4E+06	--	3E-08	--
24409 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	4.2	Max	3.5E+05	1.4E+03	1E-05	3E-09
24409 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	5.7	Max	2.0E+04	--	3E-04	--
24409 NEPTUNE AVE	Benzene	µg/kg	460	Max	5.8E+06	1.9E+04	8E-05	2E-08
24409 NEPTUNE AVE	Ethylbenzene	µg/kg	1400	Max	2.9E+08	4.2E+05	5E-06	3E-09
24409 NEPTUNE AVE	Naphthalene	mg/kg	2	Max	1.3E+04	3.5E+02	2E-04	6E-09
24409 NEPTUNE AVE	Pyrene	mg/kg	0.54	Max	1.5E+05	--	4E-06	--
24409 NEPTUNE AVE	Toluene	µg/kg	0.25	Max	4.2E+08	--	6E-10	--
24409 NEPTUNE AVE	TPH as Diesel	mg/kg	10000	Max	1.1E+05	--	9E-02	--
24409 NEPTUNE AVE	TPH as Gasoline	mg/kg	470	Max	6.6E+04	--	7E-03	--
24409 NEPTUNE AVE	TPH as Motor Oil	mg/kg	16000	Max	2.9E+05	--	6E-02	--
24409 NEPTUNE AVE	Xylenes, Total	µg/kg	1.9	Max	4.9E+07	--	4E-08	--
24409 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.399	95UCL	7.2E+06	--	6E-08	--
24409 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.22	Max	7.4E+06	--	3E-08	--
24409 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.339	95UCL	3.5E+05	1.4E+03	1E-05	2E-09
24409 RAVENNA AVE	2-Methylnaphthalene	mg/kg	8.7	95UCL	2.0E+04	--	4E-04	--
24409 RAVENNA AVE	Benzene	µg/kg	0.25	Max	5.8E+06	1.9E+04	4E-08	1E-11
24409 RAVENNA AVE	Cobalt	mg/kg	11.05	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24409 RAVENNA AVE	Ethylbenzene	µg/kg	40.7	95UCL	2.9E+08	4.2E+05	1E-07	1E-10
24409 RAVENNA AVE	Naphthalene	mg/kg	2.6	95UCL	1.3E+04	3.5E+02	2E-04	8E-09
24409 RAVENNA AVE	Pyrene	mg/kg	2.39	95UCL	1.5E+05	--	2E-05	--
24409 RAVENNA AVE	Toluene	µg/kg	0.39	Max	4.2E+08	--	9E-10	--
24409 RAVENNA AVE	TPH as Diesel	mg/kg	5384	95UCL	1.1E+05	--	5E-02	--
24409 RAVENNA AVE	TPH as Gasoline	mg/kg	197.9	95UCL	6.6E+04	--	3E-03	--
24409 RAVENNA AVE	TPH as Motor Oil	mg/kg	6945	95UCL	2.9E+05	--	2E-02	--
24409 RAVENNA AVE	Xylenes, Total	µg/kg	1.712	95UCL	4.9E+07	--	4E-08	--
24410 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0007	95UCL	2.0E+04	--	4E-08	--
24410 PANAMA AVE	Benzene	µg/kg	0.33	Max	5.8E+06	1.9E+04	6E-08	2E-11
24410 PANAMA AVE	Bromomethane	µg/kg	2.3	Max	7.7E+05	--	3E-06	--
24410 PANAMA AVE	Cobalt	mg/kg	10.49	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24410 PANAMA AVE	Naphthalene	mg/kg	0.017	Max	1.3E+04	3.5E+02	1E-06	5E-11
24410 PANAMA AVE	Pyrene	mg/kg	0.0309	95UCL	1.5E+05	--	2E-07	--
24410 PANAMA AVE	Toluene	µg/kg	0.2	Max	4.2E+08	--	5E-10	--
24411 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.6	Max	7.2E+06	--	8E-08	--
24411 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.016	Max	3.5E+05	1.4E+03	5E-08	1E-11
24411 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.019	Max	2.0E+04	--	1E-06	--
24411 MARBELLA AVE	Cobalt	mg/kg	10.87	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24411 MARBELLA AVE	Naphthalene	mg/kg	0.14	Max	1.3E+04	3.5E+02	1E-05	4E-10
24411 MARBELLA AVE	Pyrene	mg/kg	0.0146	95UCL	1.5E+05	--	1E-07	--
24411 MARBELLA AVE	Tetrachloroethene	µg/kg	0.34	Max	7.5E+06	4.9E+04	5E-08	7E-12
24411 MARBELLA AVE	Toluene	µg/kg	0.21	Max	4.2E+08	--	5E-10	--
24411 MARBELLA AVE	TPH as Diesel	mg/kg	11	Max	1.1E+05	--	1E-04	--
24411 MARBELLA AVE	TPH as Gasoline	mg/kg	0.065	Max	6.6E+04	--	1E-06	--
24411 MARBELLA AVE	TPH as Motor Oil	mg/kg	26	Max	2.9E+05	--	9E-05	--
24411 MARBELLA AVE	Xylenes, Total	µg/kg	0.28	Max	4.9E+07	--	6E-09	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24411 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	10451	95UCL	7.2E+06	--	1E-03	--
24411 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	6100	Max	7.4E+06	--	8E-04	--
24411 PANAMA AVE	1-Methylnaphthalene	mg/kg	21.78	95UCL	3.5E+05	1.4E+03	6E-05	2E-08
24411 PANAMA AVE	2-Methylnaphthalene	mg/kg	36	95UCL	2.0E+04	--	2E-03	--
24411 PANAMA AVE	Benzene	µg/kg	5626	95UCL	5.8E+06	1.9E+04	1E-03	3E-07
24411 PANAMA AVE	Bromomethane	µg/kg	270	Max	7.7E+05	--	4E-04	--
24411 PANAMA AVE	Cobalt	mg/kg	12.92	95UCL	2.1E+03	2.7E+06	6E-03	5E-12
24411 PANAMA AVE	Ethylbenzene	µg/kg	8600	95UCL	2.9E+08	4.2E+05	3E-05	2E-08
24411 PANAMA AVE	Naphthalene	mg/kg	16.54	95UCL	1.3E+04	3.5E+02	1E-03	5E-08
24411 PANAMA AVE	Pyrene	mg/kg	0.301	95UCL	1.5E+05	--	2E-06	--
24411 PANAMA AVE	Toluene	µg/kg	1800	Max	4.2E+08	--	4E-06	--
24411 PANAMA AVE	TPH as Diesel	mg/kg	13111	95UCL	1.1E+05	--	1E-01	--
24411 PANAMA AVE	TPH as Gasoline	mg/kg	2167	95UCL	6.6E+04	--	3E-02	--
24411 PANAMA AVE	TPH as Motor Oil	mg/kg	10949	95UCL	2.9E+05	--	4E-02	--
24411 PANAMA AVE	Xylenes, Total	µg/kg	9400	Max	4.9E+07	--	2E-04	--
24412 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	27000	Max	7.2E+06	--	4E-03	--
24412 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	7900	Max	7.4E+06	--	1E-03	--
24412 MARBELLA AVE	1-Methylnaphthalene	mg/kg	17	Max	3.5E+05	1.4E+03	5E-05	1E-08
24412 MARBELLA AVE	2-Methylnaphthalene	mg/kg	31	Max	2.0E+04	--	2E-03	--
24412 MARBELLA AVE	Benzene	µg/kg	5400	Max	5.8E+06	1.9E+04	9E-04	3E-07
24412 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.49	Max	1.1E+05	3.0E+03	5E-06	2E-10
24412 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.19	Max	2.1E+04	1.1E+02	9E-06	2E-09
24412 MARBELLA AVE	Cobalt	mg/kg	31.3	Max	2.1E+03	2.7E+06	2E-02	1E-11
24412 MARBELLA AVE	Ethylbenzene	µg/kg	11000	Max	2.9E+08	4.2E+05	4E-05	3E-08
24412 MARBELLA AVE	Naphthalene	mg/kg	18	Max	1.3E+04	3.5E+02	1E-03	5E-08
24412 MARBELLA AVE	Pyrene	mg/kg	0.78	Max	1.5E+05	--	5E-06	--
24412 MARBELLA AVE	Toluene	µg/kg	160	Max	4.2E+08	--	4E-07	--
24412 MARBELLA AVE	TPH as Diesel	mg/kg	14000	Max	1.1E+05	--	1E-01	--
24412 MARBELLA AVE	TPH as Gasoline	mg/kg	3400	Max	6.6E+04	--	5E-02	--
24412 MARBELLA AVE	TPH as Motor Oil	mg/kg	15000	Max	2.9E+05	--	5E-02	--
24412 MARBELLA AVE	Vanadium	mg/kg	61.9	Max	3.4E+04	--	2E-03	--
24412 MARBELLA AVE	Xylenes, Total	µg/kg	28000	Max	4.9E+07	--	6E-04	--
24412 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	23.59	95UCL	7.2E+06	--	3E-06	--
24412 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	5.659	95UCL	7.4E+06	--	8E-07	--
24412 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.707	95UCL	3.5E+05	1.4E+03	5E-06	1E-09
24412 RAVENNA AVE	2-Methylnaphthalene	mg/kg	2.363	95UCL	2.0E+04	--	1E-04	--
24412 RAVENNA AVE	Benzene	µg/kg	2.359	95UCL	5.8E+06	1.9E+04	4E-07	1E-10
24412 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.28	Max	2.1E+04	1.1E+02	1E-05	3E-09
24412 RAVENNA AVE	Cobalt	mg/kg	11.08	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24412 RAVENNA AVE	Ethylbenzene	µg/kg	56.1	95UCL	2.9E+08	4.2E+05	2E-07	1E-10
24412 RAVENNA AVE	Naphthalene	mg/kg	0.746	95UCL	1.3E+04	3.5E+02	6E-05	2E-09
24412 RAVENNA AVE	Pyrene	mg/kg	1.205	95UCL	1.5E+05	--	8E-06	--
24412 RAVENNA AVE	Toluene	µg/kg	9.427	95UCL	4.2E+08	--	2E-08	--
24412 RAVENNA AVE	TPH as Diesel	mg/kg	6589	95UCL	1.1E+05	--	6E-02	--
24412 RAVENNA AVE	TPH as Gasoline	mg/kg	210	95UCL	6.6E+04	--	3E-03	--
24412 RAVENNA AVE	TPH as Motor Oil	mg/kg	9461	95UCL	2.9E+05	--	3E-02	--
24412 RAVENNA AVE	Xylenes, Total	µg/kg	17.72	95UCL	4.9E+07	--	4E-07	--
24413 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	8800	Max	7.2E+06	--	1E-03	--
24413 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	160	Max	7.4E+06	--	2E-05	--
24413 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	8	Max	3.5E+05	1.4E+03	2E-05	6E-09
24413 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	13	Max	2.0E+04	--	7E-04	--
24413 NEPTUNE AVE	Benzene	µg/kg	1000	Max	5.8E+06	1.9E+04	2E-04	5E-08
24413 NEPTUNE AVE	Ethylbenzene	µg/kg	3700	Max	2.9E+08	4.2E+05	1E-05	9E-09
24413 NEPTUNE AVE	Naphthalene	mg/kg	4.6	Max	1.3E+04	3.5E+02	4E-04	1E-08
24413 NEPTUNE AVE	Pyrene	mg/kg	1.8	Max	1.5E+05	--	1E-05	--
24413 NEPTUNE AVE	Toluene	µg/kg	22	Max	4.2E+08	--	5E-08	--
24413 NEPTUNE AVE	TPH as Diesel	mg/kg	13000	Max	1.1E+05	--	1E-01	--
24413 NEPTUNE AVE	TPH as Gasoline	mg/kg	1200	Max	6.6E+04	--	2E-02	--
24413 NEPTUNE AVE	TPH as Motor Oil	mg/kg	16000	Max	2.9E+05	--	6E-02	--
24413 NEPTUNE AVE	Xylenes, Total	µg/kg	2800	Max	4.9E+07	--	6E-05	--
24413 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1.2	Max	7.2E+06	--	2E-07	--
24413 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.25	Max	7.4E+06	--	3E-08	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24413 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.8	Max	3.5E+05	1.4E+03	8E-06	2E-09
24413 RAVENNA AVE	2-Methylnaphthalene	mg/kg	3.1	Max	2.0E+04	--	2E-04	--
24413 RAVENNA AVE	Benzene	µg/kg	0.23	Max	5.8E+06	1.9E+04	4E-08	1E-11
24413 RAVENNA AVE	Cobalt	mg/kg	12.2	Max	2.1E+03	2.7E+06	6E-03	5E-12
24413 RAVENNA AVE	Ethylbenzene	µg/kg	1.2	Max	2.9E+08	4.2E+05	4E-09	3E-12
24413 RAVENNA AVE	Naphthalene	mg/kg	0.47	Max	1.3E+04	3.5E+02	4E-05	1E-09
24413 RAVENNA AVE	Pyrene	mg/kg	1.6	Max	1.5E+05	--	1E-05	--
24413 RAVENNA AVE	Toluene	µg/kg	0.21	Max	4.2E+08	--	5E-10	--
24413 RAVENNA AVE	TPH as Diesel	mg/kg	7700	Max	1.1E+05	--	7E-02	--
24413 RAVENNA AVE	TPH as Gasoline	mg/kg	2.1	Max	6.6E+04	--	3E-05	--
24413 RAVENNA AVE	TPH as Motor Oil	mg/kg	10000	Max	2.9E+05	--	3E-02	--
24413 RAVENNA AVE	Xylenes, Total	µg/kg	1.5	Max	4.9E+07	--	3E-08	--
24416 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	8717	95UCL	7.2E+06	--	1E-03	--
24416 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	501.3	95UCL	7.4E+06	--	7E-05	--
24416 MARBELLA AVE	1-Methylnaphthalene	mg/kg	13.91	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24416 MARBELLA AVE	2-Methylnaphthalene	mg/kg	19.34	95UCL	2.0E+04	--	1E-03	--
24416 MARBELLA AVE	Benzene	µg/kg	639.7	95UCL	5.8E+06	1.9E+04	1E-04	3E-08
24416 MARBELLA AVE	Cobalt	mg/kg	14.17	95UCL	2.1E+03	2.7E+06	7E-03	5E-12
24416 MARBELLA AVE	Ethylbenzene	µg/kg	9677	95UCL	2.9E+08	4.2E+05	3E-05	2E-08
24416 MARBELLA AVE	Naphthalene	mg/kg	12.42	95UCL	1.3E+04	3.5E+02	9E-04	4E-08
24416 MARBELLA AVE	Pyrene	mg/kg	2.04	95UCL	1.5E+05	--	1E-05	--
24416 MARBELLA AVE	Toluene	µg/kg	970	Max	4.2E+08	--	2E-06	--
24416 MARBELLA AVE	TPH as Diesel	mg/kg	9740	95UCL	1.1E+05	--	9E-02	--
24416 MARBELLA AVE	TPH as Gasoline	mg/kg	2060	95UCL	6.6E+04	--	3E-02	--
24416 MARBELLA AVE	TPH as Motor Oil	mg/kg	9519	95UCL	2.9E+05	--	3E-02	--
24416 MARBELLA AVE	Vanadium	mg/kg	50.19	95UCL	3.4E+04	--	2E-03	--
24416 MARBELLA AVE	Xylenes, Total	µg/kg	2815	95UCL	4.9E+07	--	6E-05	--
24416 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	9.8	Max	7.2E+06	--	1E-06	--
24416 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.68	Max	7.4E+06	--	9E-08	--
24416 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.028	Max	3.5E+05	1.4E+03	8E-08	2E-11
24416 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.033	Max	2.0E+04	--	2E-06	--
24416 NEPTUNE AVE	Benzene	µg/kg	9.5	Max	5.8E+06	1.9E+04	2E-06	5E-10
24416 NEPTUNE AVE	Ethylbenzene	µg/kg	12	Max	2.9E+08	4.2E+05	4E-08	3E-11
24416 NEPTUNE AVE	Naphthalene	mg/kg	0.021	Max	1.3E+04	3.5E+02	2E-06	6E-11
24416 NEPTUNE AVE	Pyrene	mg/kg	0.12	Max	1.5E+05	--	8E-07	--
24416 NEPTUNE AVE	TPH as Diesel	mg/kg	230	Max	1.1E+05	--	2E-03	--
24416 NEPTUNE AVE	TPH as Gasoline	mg/kg	1	Max	6.6E+04	--	2E-05	--
24416 NEPTUNE AVE	TPH as Motor Oil	mg/kg	410	Max	2.9E+05	--	1E-03	--
24416 NEPTUNE AVE	Xylenes, Total	µg/kg	5.2	Max	4.9E+07	--	1E-07	--
24416 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0011	Max	2.0E+04	--	6E-08	--
24416 PANAMA AVE	Benzene	µg/kg	0.5	Max	5.8E+06	1.9E+04	9E-08	3E-11
24416 PANAMA AVE	Cobalt	mg/kg	7.947	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
24416 PANAMA AVE	Pyrene	mg/kg	0.0033	95UCL	1.5E+05	--	2E-08	--
24416 PANAMA AVE	Toluene	µg/kg	0.66	Max	4.2E+08	--	2E-09	--
24416 PANAMA AVE	TPH as Gasoline	mg/kg	0.076	Max	6.6E+04	--	1E-06	--
24416 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1.996	95UCL	7.2E+06	--	3E-07	--
24416 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.598	95UCL	7.4E+06	--	8E-08	--
24416 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.756	95UCL	3.5E+05	1.4E+03	2E-06	6E-10
24416 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.643	95UCL	2.0E+04	--	3E-05	--
24416 RAVENNA AVE	Benzene	µg/kg	0.869	95UCL	5.8E+06	1.9E+04	2E-07	5E-11
24416 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	2.1E+04	1.1E+02	2E-05	3E-09
24416 RAVENNA AVE	Ethylbenzene	µg/kg	33.02	95UCL	2.9E+08	4.2E+05	1E-07	8E-11
24416 RAVENNA AVE	Naphthalene	mg/kg	0.315	95UCL	1.3E+04	3.5E+02	2E-05	9E-10
24416 RAVENNA AVE	Pyrene	mg/kg	0.435	95UCL	1.5E+05	--	3E-06	--
24416 RAVENNA AVE	Toluene	µg/kg	0.378	95UCL	4.2E+08	--	9E-10	--
24416 RAVENNA AVE	TPH as Diesel	mg/kg	2821	95UCL	1.1E+05	--	3E-02	--
24416 RAVENNA AVE	TPH as Gasoline	mg/kg	455	95UCL	6.6E+04	--	7E-03	--
24416 RAVENNA AVE	TPH as Motor Oil	mg/kg	4719	95UCL	2.9E+05	--	2E-02	--
24416 RAVENNA AVE	Xylenes, Total	µg/kg	2.997	95UCL	4.9E+07	--	6E-08	--
24417 MARBELLA AVE	Benzene	µg/kg	0.12	Max	5.8E+06	1.9E+04	2E-08	6E-12
24417 MARBELLA AVE	Cobalt	mg/kg	11.2	Max	2.1E+03	2.7E+06	6E-03	4E-12
24417 MARBELLA AVE	Naphthalene	mg/kg	0.0014	Max	1.3E+04	3.5E+02	1E-07	4E-12

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24417 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	643.4	95UCL	7.2E+06	--	9E-05	--
24417 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	213.8	95UCL	7.4E+06	--	3E-05	--
24417 PANAMA AVE	1-Methylnaphthalene	mg/kg	15.36	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24417 PANAMA AVE	2-Methylnaphthalene	mg/kg	23.24	95UCL	2.0E+04	--	1E-03	--
24417 PANAMA AVE	Benzene	µg/kg	2063	95UCL	5.8E+06	1.9E+04	4E-04	1E-07
24417 PANAMA AVE	Cobalt	mg/kg	11.22	95UCL	2.1E+03	2.7E+06	6E-03	4E-12
24417 PANAMA AVE	Ethylbenzene	µg/kg	6409	95UCL	2.9E+08	4.2E+05	2E-05	2E-08
24417 PANAMA AVE	Naphthalene	mg/kg	10.99	95UCL	1.3E+04	3.5E+02	8E-04	3E-08
24417 PANAMA AVE	Pyrene	mg/kg	0.815	95UCL	1.5E+05	--	5E-06	--
24417 PANAMA AVE	Toluene	µg/kg	8.045	95UCL	4.2E+08	--	2E-08	--
24417 PANAMA AVE	TPH as Diesel	mg/kg	9367	95UCL	1.1E+05	--	9E-02	--
24417 PANAMA AVE	TPH as Gasoline	mg/kg	1843	95UCL	6.6E+04	--	3E-02	--
24417 PANAMA AVE	TPH as Motor Oil	mg/kg	9268	95UCL	2.9E+05	--	3E-02	--
24417 PANAMA AVE	Xylenes, Total	µg/kg	1986	95UCL	4.9E+07	--	4E-05	--
24419 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	775.1	95UCL	7.2E+06	--	1E-04	--
24419 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	188.7	95UCL	7.4E+06	--	3E-05	--
24419 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	6.827	95UCL	3.5E+05	1.4E+03	2E-05	5E-09
24419 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	9.457	95UCL	2.0E+04	--	5E-04	--
24419 NEPTUNE AVE	Benzene	µg/kg	717.4	95UCL	5.8E+06	1.9E+04	1E-04	4E-08
24419 NEPTUNE AVE	Ethylbenzene	µg/kg	2495	95UCL	2.9E+08	4.2E+05	9E-06	6E-09
24419 NEPTUNE AVE	Naphthalene	mg/kg	3.3	95UCL	1.3E+04	3.5E+02	3E-04	1E-08
24419 NEPTUNE AVE	Pyrene	mg/kg	1.146	95UCL	1.5E+05	--	8E-06	--
24419 NEPTUNE AVE	Toluene	µg/kg	18.83	95UCL	4.2E+08	--	5E-08	--
24419 NEPTUNE AVE	TPH as Diesel	mg/kg	9081	95UCL	1.1E+05	--	8E-02	--
24419 NEPTUNE AVE	TPH as Gasoline	mg/kg	369.4	95UCL	6.6E+04	--	6E-03	--
24419 NEPTUNE AVE	TPH as Motor Oil	mg/kg	9817	95UCL	2.9E+05	--	3E-02	--
24419 NEPTUNE AVE	Xylenes, Total	µg/kg	205	95UCL	4.9E+07	--	4E-06	--
24419 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	419.6	95UCL	7.2E+06	--	6E-05	--
24419 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	44.92	95UCL	7.4E+06	--	6E-06	--
24419 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.814	95UCL	3.5E+05	1.4E+03	5E-06	1E-09
24419 RAVENNA AVE	2-Methylnaphthalene	mg/kg	2.657	95UCL	2.0E+04	--	1E-04	--
24419 RAVENNA AVE	Benzene	µg/kg	17.3	95UCL	5.8E+06	1.9E+04	3E-06	9E-10
24419 RAVENNA AVE	Bromomethane	µg/kg	500	Max	7.7E+05	--	7E-04	--
24419 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.13	Max	2.1E+04	1.1E+02	6E-06	1E-09
24419 RAVENNA AVE	Ethylbenzene	µg/kg	109.9	95UCL	2.9E+08	4.2E+05	4E-07	3E-10
24419 RAVENNA AVE	Naphthalene	mg/kg	0.973	95UCL	1.3E+04	3.5E+02	7E-05	3E-09
24419 RAVENNA AVE	Pyrene	mg/kg	0.278	95UCL	1.5E+05	--	2E-06	--
24419 RAVENNA AVE	Toluene	µg/kg	0.233	95UCL	4.2E+08	--	6E-10	--
24419 RAVENNA AVE	TPH as Diesel	mg/kg	784.1	95UCL	1.1E+05	--	7E-03	--
24419 RAVENNA AVE	TPH as Gasoline	mg/kg	73.84	95UCL	6.6E+04	--	1E-03	--
24419 RAVENNA AVE	TPH as Motor Oil	mg/kg	1395	95UCL	2.9E+05	--	5E-03	--
24419 RAVENNA AVE	Xylenes, Total	µg/kg	134.4	95UCL	4.9E+07	--	3E-06	--
24420 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.44	Max	7.2E+06	--	6E-08	--
24420 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0056	Max	3.5E+05	1.4E+03	2E-08	4E-12
24420 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.014	Max	2.0E+04	--	7E-07	--
24420 PANAMA AVE	Benzene	µg/kg	1.9	Max	5.8E+06	1.9E+04	3E-07	1E-10
24420 PANAMA AVE	Ethylbenzene	µg/kg	0.32	Max	2.9E+08	4.2E+05	1E-09	8E-13
24420 PANAMA AVE	Naphthalene	mg/kg	0.044	Max	1.3E+04	3.5E+02	3E-06	1E-10
24420 PANAMA AVE	Pyrene	mg/kg	0.013	Max	1.5E+05	--	9E-08	--
24420 PANAMA AVE	Toluene	µg/kg	0.47	Max	4.2E+08	--	1E-09	--
24420 PANAMA AVE	TPH as Diesel	mg/kg	290	Max	1.1E+05	--	3E-03	--
24420 PANAMA AVE	TPH as Motor Oil	mg/kg	750	Max	2.9E+05	--	3E-03	--
24421 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2900	Max	7.2E+06	--	4E-04	--
24421 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	320	Max	7.4E+06	--	4E-05	--
24421 PANAMA AVE	1-Methylnaphthalene	mg/kg	22.6	95UCL	3.5E+05	1.4E+03	6E-05	2E-08
24421 PANAMA AVE	2-Methylnaphthalene	mg/kg	35.53	95UCL	2.0E+04	--	2E-03	--
24421 PANAMA AVE	Benzene	µg/kg	94	Max	5.8E+06	1.9E+04	2E-05	5E-09
24421 PANAMA AVE	Ethylbenzene	µg/kg	7821	95UCL	2.9E+08	4.2E+05	3E-05	2E-08
24421 PANAMA AVE	Naphthalene	mg/kg	19.81	95UCL	1.3E+04	3.5E+02	2E-03	6E-08
24421 PANAMA AVE	Pyrene	mg/kg	0.574	95UCL	1.5E+05	--	4E-06	--
24421 PANAMA AVE	Toluene	µg/kg	12	Max	4.2E+08	--	3E-08	--
24421 PANAMA AVE	TPH as Diesel	mg/kg	17721	95UCL	1.1E+05	--	2E-01	--

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Detailed Risk Calculations

Table E-3
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Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24421 PANAMA AVE	TPH as Gasoline	mg/kg	2325	95UCL	6.6E+04	--	4E-02	--
24421 PANAMA AVE	TPH as Motor Oil	mg/kg	12406	95UCL	2.9E+05	--	4E-02	--
24421 PANAMA AVE	Xylenes, Total	µg/kg	341.8	95UCL	4.9E+07	--	7E-06	--
24422 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	952.4	95UCL	7.2E+06	--	1E-04	--
24422 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1105	95UCL	7.4E+06	--	2E-04	--
24422 MARBELLA AVE	1-Methylnaphthalene	mg/kg	14.56	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24422 MARBELLA AVE	2-Methylnaphthalene	mg/kg	21.49	95UCL	2.0E+04	--	1E-03	--
24422 MARBELLA AVE	Benzene	µg/kg	897.3	95UCL	5.8E+06	1.9E+04	2E-04	5E-08
24422 MARBELLA AVE	Bromomethane	µg/kg	270	Max	7.7E+05	--	4E-04	--
24422 MARBELLA AVE	Ethylbenzene	µg/kg	2786	95UCL	2.9E+08	4.2E+05	1E-05	7E-09
24422 MARBELLA AVE	Naphthalene	mg/kg	15.38	95UCL	1.3E+04	3.5E+02	1E-03	4E-08
24422 MARBELLA AVE	Pyrene	mg/kg	2.606	95UCL	1.5E+05	--	2E-05	--
24422 MARBELLA AVE	Toluene	µg/kg	141.4	95UCL	4.2E+08	--	3E-07	--
24422 MARBELLA AVE	TPH as Diesel	mg/kg	12525	95UCL	1.1E+05	--	1E-01	--
24422 MARBELLA AVE	TPH as Gasoline	mg/kg	1600	95UCL	6.6E+04	--	2E-02	--
24422 MARBELLA AVE	TPH as Motor Oil	mg/kg	15176	95UCL	2.9E+05	--	5E-02	--
24422 MARBELLA AVE	Xylenes, Total	µg/kg	394.3	95UCL	4.9E+07	--	8E-06	--
24422 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	12.24	95UCL	7.2E+06	--	2E-06	--
24422 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.3	Max	7.4E+06	--	4E-08	--
24422 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.99	95UCL	3.5E+05	1.4E+03	3E-06	7E-10
24422 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	1.222	95UCL	2.0E+04	--	6E-05	--
24422 NEPTUNE AVE	Benzene	µg/kg	2.271	95UCL	5.8E+06	1.9E+04	4E-07	1E-10
24422 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.04	Max	2.1E+04	1.1E+02	2E-06	4E-10
24422 NEPTUNE AVE	Ethylbenzene	µg/kg	7.683	95UCL	2.9E+08	4.2E+05	3E-08	2E-11
24422 NEPTUNE AVE	Naphthalene	mg/kg	0.429	95UCL	1.3E+04	3.5E+02	3E-05	1E-09
24422 NEPTUNE AVE	Pyrene	mg/kg	1.139	95UCL	1.5E+05	--	8E-06	--
24422 NEPTUNE AVE	Toluene	µg/kg	31.84	95UCL	4.2E+08	--	8E-08	--
24422 NEPTUNE AVE	TPH as Diesel	mg/kg	1609	95UCL	1.1E+05	--	2E-02	--
24422 NEPTUNE AVE	TPH as Gasoline	mg/kg	118.1	95UCL	6.6E+04	--	2E-03	--
24422 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2117	95UCL	2.9E+05	--	7E-03	--
24422 NEPTUNE AVE	Xylenes, Total	µg/kg	1.84	95UCL	4.9E+07	--	4E-08	--
24422 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	92	Max	7.2E+06	--	1E-05	--
24422 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	13	Max	7.4E+06	--	2E-06	--
24422 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.82	Max	3.5E+05	1.4E+03	2E-06	6E-10
24422 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1	Max	2.0E+04	--	5E-05	--
24422 RAVENNA AVE	Benzene	µg/kg	4.1	Max	5.8E+06	1.9E+04	7E-07	2E-10
24422 RAVENNA AVE	Ethylbenzene	µg/kg	230	Max	2.9E+08	4.2E+05	8E-07	6E-10
24422 RAVENNA AVE	Naphthalene	mg/kg	0.46	Max	1.3E+04	3.5E+02	4E-05	1E-09
24422 RAVENNA AVE	Pyrene	mg/kg	0.33	Max	1.5E+05	--	2E-06	--
24422 RAVENNA AVE	Toluene	µg/kg	22	Max	4.2E+08	--	5E-08	--
24422 RAVENNA AVE	TPH as Diesel	mg/kg	2700	Max	1.1E+05	--	3E-02	--
24422 RAVENNA AVE	TPH as Gasoline	mg/kg	56	Max	6.6E+04	--	9E-04	--
24422 RAVENNA AVE	TPH as Motor Oil	mg/kg	3500	Max	2.9E+05	--	1E-02	--
24422 RAVENNA AVE	Xylenes, Total	µg/kg	59	Max	4.9E+07	--	1E-06	--
24423 MARBELLA AVE	Cobalt	mg/kg	11.2	Max	2.1E+03	2.7E+06	6E-03	4E-12
24423 MARBELLA AVE	Pyrene	mg/kg	0.0037	Max	1.5E+05	--	3E-08	--
24423 MARBELLA AVE	Toluene	µg/kg	0.16	Max	4.2E+08	--	4E-10	--
24423 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	5235	95UCL	7.2E+06	--	7E-04	--
24423 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1500	Max	7.4E+06	--	2E-04	--
24423 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	15.21	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24423 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	23.16	95UCL	2.0E+04	--	1E-03	--
24423 NEPTUNE AVE	Benzene	µg/kg	690.1	95UCL	5.8E+06	1.9E+04	1E-04	4E-08
24423 NEPTUNE AVE	Ethylbenzene	µg/kg	3023	95UCL	2.9E+08	4.2E+05	1E-05	7E-09
24423 NEPTUNE AVE	Naphthalene	mg/kg	10.29	95UCL	1.3E+04	3.5E+02	8E-04	3E-08
24423 NEPTUNE AVE	Pyrene	mg/kg	1.321	95UCL	1.5E+05	--	9E-06	--
24423 NEPTUNE AVE	Toluene	µg/kg	42	Max	4.2E+08	--	1E-07	--
24423 NEPTUNE AVE	TPH as Diesel	mg/kg	12904	95UCL	1.1E+05	--	1E-01	--
24423 NEPTUNE AVE	TPH as Gasoline	mg/kg	1100	95UCL	6.6E+04	--	2E-02	--
24423 NEPTUNE AVE	TPH as Motor Oil	mg/kg	9513	95UCL	2.9E+05	--	3E-02	--
24423 NEPTUNE AVE	Xylenes, Total	µg/kg	1276	95UCL	4.9E+07	--	3E-05	--
24423 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1297	95UCL	7.2E+06	--	2E-04	--
24423 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	237.2	95UCL	7.4E+06	--	3E-05	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24423 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.862	95UCL	3.5E+05	1.4E+03	8E-06	2E-09
24423 RAVENNA AVE	2-Methylnaphthalene	mg/kg	7.8	95UCL	2.0E+04	--	4E-04	--
24423 RAVENNA AVE	Benzene	µg/kg	133.9	95UCL	5.8E+06	1.9E+04	2E-05	7E-09
24423 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.24	Max	2.1E+04	1.1E+02	1E-05	2E-09
24423 RAVENNA AVE	Cobalt	mg/kg	8.376	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
24423 RAVENNA AVE	Ethylbenzene	µg/kg	417.4	95UCL	2.9E+08	4.2E+05	2E-06	1E-09
24423 RAVENNA AVE	Naphthalene	mg/kg	2.224	95UCL	1.3E+04	3.5E+02	2E-04	6E-09
24423 RAVENNA AVE	Pyrene	mg/kg	0.951	95UCL	1.5E+05	--	6E-06	--
24423 RAVENNA AVE	Toluene	µg/kg	0.12	Max	4.2E+08	--	3E-10	--
24423 RAVENNA AVE	TPH as Diesel	mg/kg	4674	95UCL	1.1E+05	--	4E-02	--
24423 RAVENNA AVE	TPH as Gasoline	mg/kg	22.4	95UCL	6.6E+04	--	3E-04	--
24423 RAVENNA AVE	TPH as Motor Oil	mg/kg	3460	95UCL	2.9E+05	--	1E-02	--
24423 RAVENNA AVE	Xylenes, Total	µg/kg	309.8	95UCL	4.9E+07	--	6E-06	--
24426 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	51	Max	7.2E+06	--	7E-06	--
24426 MARBELLA AVE	1-Methylnaphthalene	mg/kg	13	Max	3.5E+05	1.4E+03	4E-05	1E-08
24426 MARBELLA AVE	2-Methylnaphthalene	mg/kg	18	Max	2.0E+04	--	9E-04	--
24426 MARBELLA AVE	Benzene	µg/kg	65	Max	5.8E+06	1.9E+04	1E-05	3E-09
24426 MARBELLA AVE	Ethylbenzene	µg/kg	2600	Max	2.9E+08	4.2E+05	9E-06	6E-09
24426 MARBELLA AVE	Naphthalene	mg/kg	9.3	Max	1.3E+04	3.5E+02	7E-04	3E-08
24426 MARBELLA AVE	Pyrene	mg/kg	2.5	Max	1.5E+05	--	2E-05	--
24426 MARBELLA AVE	TPH as Diesel	mg/kg	17000	Max	1.1E+05	--	2E-01	--
24426 MARBELLA AVE	TPH as Gasoline	mg/kg	790	Max	6.6E+04	--	1E-02	--
24426 MARBELLA AVE	TPH as Motor Oil	mg/kg	21000	Max	2.9E+05	--	7E-02	--
24426 MARBELLA AVE	Xylenes, Total	µg/kg	0.75	Max	4.9E+07	--	2E-08	--
24426 NEPTUNE AVE	1,1,2,2-Tetrachloroethane	µg/kg	1.6	Max	5.4E+07	4.1E+04	3E-08	4E-11
24426 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.351	95UCL	7.2E+06	--	5E-08	--
24426 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.16	Max	7.4E+06	--	2E-08	--
24426 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.159	95UCL	3.5E+05	1.4E+03	5E-07	1E-10
24426 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.245	95UCL	2.0E+04	--	1E-05	--
24426 NEPTUNE AVE	Benzene	µg/kg	0.622	95UCL	5.8E+06	1.9E+04	1E-07	3E-11
24426 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.23	Max	2.1E+04	1.1E+02	1E-05	2E-09
24426 NEPTUNE AVE	Cobalt	mg/kg	10.34	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24426 NEPTUNE AVE	Ethylbenzene	µg/kg	1.4	Max	2.9E+08	4.2E+05	5E-09	3E-12
24426 NEPTUNE AVE	Naphthalene	mg/kg	0.0606	95UCL	1.3E+04	3.5E+02	5E-06	2E-10
24426 NEPTUNE AVE	Pyrene	mg/kg	0.232	95UCL	1.5E+05	--	2E-06	--
24426 NEPTUNE AVE	Tetrachloroethene	µg/kg	0.26	Max	7.5E+06	4.9E+04	3E-08	5E-12
24426 NEPTUNE AVE	Toluene	µg/kg	0.251	95UCL	4.2E+08	--	6E-10	--
24426 NEPTUNE AVE	TPH as Diesel	mg/kg	2054	95UCL	1.1E+05	--	2E-02	--
24426 NEPTUNE AVE	TPH as Gasoline	mg/kg	1.695	95UCL	6.6E+04	--	3E-05	--
24426 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5370	95UCL	2.9E+05	--	2E-02	--
24426 NEPTUNE AVE	Trichloroethene	µg/kg	0.23	Max	5.0E+05	1.0E+05	5E-07	2E-12
24426 NEPTUNE AVE	Xylenes, Total	µg/kg	1.147	95UCL	4.9E+07	--	2E-08	--
24426 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0017	Max	3.5E+05	1.4E+03	5E-09	1E-12
24426 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0034	Max	2.0E+04	--	2E-07	--
24426 PANAMA AVE	Benzene	µg/kg	3.9	Max	5.8E+06	1.9E+04	7E-07	2E-10
24426 PANAMA AVE	Cobalt	mg/kg	8.12	Max	2.1E+03	2.7E+06	4E-03	3E-12
24426 PANAMA AVE	Ethylbenzene	µg/kg	0.5	Max	2.9E+08	4.2E+05	2E-09	1E-12
24426 PANAMA AVE	Naphthalene	mg/kg	0.004	Max	1.3E+04	3.5E+02	3E-07	1E-11
24426 PANAMA AVE	Pyrene	mg/kg	0.013	Max	1.5E+05	--	9E-08	--
24426 PANAMA AVE	Toluene	µg/kg	0.64	Max	4.2E+08	--	2E-09	--
24426 PANAMA AVE	TPH as Diesel	mg/kg	49	Max	1.1E+05	--	5E-04	--
24426 PANAMA AVE	TPH as Motor Oil	mg/kg	95	Max	2.9E+05	--	3E-04	--
24426 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1367	95UCL	7.2E+06	--	2E-04	--
24426 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	22.55	95UCL	7.4E+06	--	3E-06	--
24426 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0972	95UCL	3.5E+05	1.4E+03	3E-07	7E-11
24426 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.139	95UCL	2.0E+04	--	7E-06	--
24426 RAVENNA AVE	Benzene	µg/kg	18.59	95UCL	5.8E+06	1.9E+04	3E-06	1E-09
24426 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.1E+04	1.1E+02	2E-05	4E-09
24426 RAVENNA AVE	Cobalt	mg/kg	11.15	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24426 RAVENNA AVE	Ethylbenzene	µg/kg	190.4	95UCL	2.9E+08	4.2E+05	7E-07	5E-10
24426 RAVENNA AVE	Naphthalene	mg/kg	1.034	95UCL	1.3E+04	3.5E+02	8E-05	3E-09
24426 RAVENNA AVE	Pyrene	mg/kg	0.187	95UCL	1.5E+05	--	1E-06	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24426 RAVENNA AVE	Toluene	µg/kg	0.33	Max	4.2E+08	--	8E-10	--
24426 RAVENNA AVE	TPH as Diesel	mg/kg	473.3	95UCL	1.1E+05	--	4E-03	--
24426 RAVENNA AVE	TPH as Gasoline	mg/kg	38.99	95UCL	6.6E+04	--	6E-04	--
24426 RAVENNA AVE	TPH as Motor Oil	mg/kg	723.7	95UCL	2.9E+05	--	3E-03	--
24426 RAVENNA AVE	Xylenes, Total	µg/kg	97.98	95UCL	4.9E+07	--	2E-06	--
24427 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0062	Max	3.5E+05	1.4E+03	2E-08	5E-12
24427 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0048	Max	2.0E+04	--	2E-07	--
24427 MARBELLA AVE	Cobalt	mg/kg	12.6	Max	2.1E+03	2.7E+06	6E-03	5E-12
24427 MARBELLA AVE	Naphthalene	mg/kg	0.0019	Max	1.3E+04	3.5E+02	1E-07	6E-12
24427 MARBELLA AVE	Pyrene	mg/kg	0.0083	Max	1.5E+05	--	6E-08	--
24427 MARBELLA AVE	Toluene	µg/kg	0.16	Max	4.2E+08	--	4E-10	--
24427 MARBELLA AVE	TPH as Gasoline	mg/kg	0.15	Max	6.6E+04	--	2E-06	--
24427 MARBELLA AVE	TPH as Motor Oil	mg/kg	15	Max	2.9E+05	--	5E-05	--
24427 MARBELLA AVE	Vanadium	mg/kg	53.2	Max	3.4E+04	--	2E-03	--
24427 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1369	95UCL	7.2E+06	--	2E-04	--
24427 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	240	Max	7.4E+06	--	3E-05	--
24427 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.153	95UCL	3.5E+05	1.4E+03	3E-06	8E-10
24427 PANAMA AVE	2-Methylnaphthalene	mg/kg	3.112	95UCL	2.0E+04	--	2E-04	--
24427 PANAMA AVE	Benzene	µg/kg	54.81	95UCL	5.8E+06	1.9E+04	9E-06	3E-09
24427 PANAMA AVE	Cobalt	mg/kg	10.23	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24427 PANAMA AVE	Ethylbenzene	µg/kg	1180	95UCL	2.9E+08	4.2E+05	4E-06	3E-09
24427 PANAMA AVE	Naphthalene	mg/kg	2.949	95UCL	1.3E+04	3.5E+02	2E-04	9E-09
24427 PANAMA AVE	Pyrene	mg/kg	1.935	95UCL	1.5E+05	--	1E-05	--
24427 PANAMA AVE	Toluene	µg/kg	11.48	95UCL	4.2E+08	--	3E-08	--
24427 PANAMA AVE	TPH as Diesel	mg/kg	3564	95UCL	1.1E+05	--	3E-02	--
24427 PANAMA AVE	TPH as Gasoline	mg/kg	326.7	95UCL	6.6E+04	--	5E-03	--
24427 PANAMA AVE	TPH as Motor Oil	mg/kg	5383	95UCL	2.9E+05	--	2E-02	--
24427 PANAMA AVE	Xylenes, Total	µg/kg	217.2	95UCL	4.9E+07	--	5E-06	--
24429 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	12000	Max	7.2E+06	--	2E-03	--
24429 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	3200	Max	7.4E+06	--	4E-04	--
24429 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	15	Max	3.5E+05	1.4E+03	4E-05	1E-08
24429 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	22	Max	2.0E+04	--	1E-03	--
24429 NEPTUNE AVE	Benzene	µg/kg	1500	Max	5.8E+06	1.9E+04	3E-04	8E-08
24429 NEPTUNE AVE	Bromomethane	µg/kg	160	Max	7.7E+05	--	2E-04	--
24429 NEPTUNE AVE	Ethylbenzene	µg/kg	4600	Max	2.9E+08	4.2E+05	2E-05	1E-08
24429 NEPTUNE AVE	Naphthalene	mg/kg	7.5	Max	1.3E+04	3.5E+02	6E-04	2E-08
24429 NEPTUNE AVE	Pyrene	mg/kg	1.3	Max	1.5E+05	--	9E-06	--
24429 NEPTUNE AVE	Toluene	µg/kg	0.51	Max	4.2E+08	--	1E-09	--
24429 NEPTUNE AVE	TPH as Diesel	mg/kg	13000	Max	1.1E+05	--	1E-01	--
24429 NEPTUNE AVE	TPH as Gasoline	mg/kg	1700	Max	6.6E+04	--	3E-02	--
24429 NEPTUNE AVE	TPH as Motor Oil	mg/kg	14000	Max	2.9E+05	--	5E-02	--
24429 NEPTUNE AVE	Xylenes, Total	µg/kg	7100	Max	4.9E+07	--	2E-04	--
24429 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	620	Max	7.2E+06	--	9E-05	--
24429 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	21	Max	7.4E+06	--	3E-06	--
24429 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.82	Max	3.5E+05	1.4E+03	2E-06	6E-10
24429 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.2	Max	2.0E+04	--	6E-05	--
24429 RAVENNA AVE	Ethylbenzene	µg/kg	560	Max	2.9E+08	4.2E+05	2E-06	1E-09
24429 RAVENNA AVE	Naphthalene	mg/kg	1.3	Max	1.3E+04	3.5E+02	1E-04	4E-09
24429 RAVENNA AVE	Pyrene	mg/kg	0.31	Max	1.5E+05	--	2E-06	--
24429 RAVENNA AVE	TPH as Diesel	mg/kg	220	Max	1.1E+05	--	2E-03	--
24429 RAVENNA AVE	TPH as Gasoline	mg/kg	380	Max	6.6E+04	--	6E-03	--
24429 RAVENNA AVE	TPH as Motor Oil	mg/kg	420	Max	2.9E+05	--	1E-03	--
24429 RAVENNA AVE	Xylenes, Total	µg/kg	31	Max	4.9E+07	--	6E-07	--
24430 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0009	Max	2.0E+04	--	5E-08	--
24430 PANAMA AVE	Benzene	µg/kg	3.7	Max	5.8E+06	1.9E+04	6E-07	2E-10
24430 PANAMA AVE	Bromomethane	µg/kg	2	Max	7.7E+05	--	3E-06	--
24430 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.48	Max	2.1E+04	1.1E+02	2E-05	4E-09
24430 PANAMA AVE	Ethylbenzene	µg/kg	0.62	Max	2.9E+08	4.2E+05	2E-09	2E-12
24430 PANAMA AVE	Naphthalene	mg/kg	0.001	Max	1.3E+04	3.5E+02	8E-08	3E-12
24430 PANAMA AVE	Pyrene	mg/kg	0.0016	Max	1.5E+05	--	1E-08	--
24430 PANAMA AVE	Toluene	µg/kg	0.61	Max	4.2E+08	--	2E-09	--
24431 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.295	95UCL	7.2E+06	--	4E-08	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24431 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.021	95UCL	3.5E+05	1.4E+03	3E-06	8E-10
24431 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.252	95UCL	2.0E+04	--	6E-05	--
24431 PANAMA AVE	Benzene	µg/kg	0.179	95UCL	5.8E+06	1.9E+04	3E-08	9E-12
24431 PANAMA AVE	Cobalt	mg/kg	11.43	95UCL	2.1E+03	2.7E+06	6E-03	4E-12
24431 PANAMA AVE	Ethylbenzene	µg/kg	275.6	95UCL	2.9E+08	4.2E+05	1E-06	7E-10
24431 PANAMA AVE	Naphthalene	mg/kg	0.542	95UCL	1.3E+04	3.5E+02	4E-05	2E-09
24431 PANAMA AVE	Pyrene	mg/kg	0.489	95UCL	1.5E+05	--	3E-06	--
24431 PANAMA AVE	Toluene	µg/kg	0.2	Max	4.2E+08	--	5E-10	--
24431 PANAMA AVE	TPH as Diesel	mg/kg	2472	95UCL	1.1E+05	--	2E-02	--
24431 PANAMA AVE	TPH as Gasoline	mg/kg	89.97	95UCL	6.6E+04	--	1E-03	--
24431 PANAMA AVE	TPH as Motor Oil	mg/kg	2805	95UCL	2.9E+05	--	1E-02	--
24431 PANAMA AVE	Xylenes, Total	µg/kg	12.32	95UCL	4.9E+07	--	3E-07	--
24432 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	26.8	95UCL	7.2E+06	--	4E-06	--
24432 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	16	Max	7.4E+06	--	2E-06	--
24432 MARBELLA AVE	1-Methylnaphthalene	mg/kg	3.306	95UCL	3.5E+05	1.4E+03	9E-06	2E-09
24432 MARBELLA AVE	2-Methylnaphthalene	mg/kg	7.099	95UCL	2.0E+04	--	4E-04	--
24432 MARBELLA AVE	Benzene	µg/kg	91.63	95UCL	5.8E+06	1.9E+04	2E-05	5E-09
24432 MARBELLA AVE	Ethylbenzene	µg/kg	1795	95UCL	2.9E+08	4.2E+05	6E-06	4E-09
24432 MARBELLA AVE	Naphthalene	mg/kg	5.261	95UCL	1.3E+04	3.5E+02	4E-04	2E-08
24432 MARBELLA AVE	Pyrene	mg/kg	0.763	95UCL	1.5E+05	--	5E-06	--
24432 MARBELLA AVE	Toluene	µg/kg	21.47	95UCL	4.2E+08	--	5E-08	--
24432 MARBELLA AVE	TPH as Diesel	mg/kg	9217	95UCL	1.1E+05	--	8E-02	--
24432 MARBELLA AVE	TPH as Gasoline	mg/kg	606.9	95UCL	6.6E+04	--	9E-03	--
24432 MARBELLA AVE	TPH as Motor Oil	mg/kg	8082	95UCL	2.9E+05	--	3E-02	--
24432 MARBELLA AVE	Trichloroethene	µg/kg	24	Max	5.0E+05	1.0E+05	5E-05	2E-10
24432 MARBELLA AVE	Xylenes, Total	µg/kg	50.22	95UCL	4.9E+07	--	1E-06	--
24433 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.59	Max	7.2E+06	--	8E-08	--
24433 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.19	Max	7.4E+06	--	3E-08	--
24433 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0024	Max	3.5E+05	1.4E+03	7E-09	2E-12
24433 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0038	Max	2.0E+04	--	2E-07	--
24433 MARBELLA AVE	Benzene	µg/kg	0.16	Max	5.8E+06	1.9E+04	3E-08	8E-12
24433 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.15	Max	2.1E+04	1.1E+02	7E-06	1E-09
24433 MARBELLA AVE	Cobalt	mg/kg	14.7	Max	2.1E+03	2.7E+06	7E-03	5E-12
24433 MARBELLA AVE	Ethylbenzene	µg/kg	0.17	Max	2.9E+08	4.2E+05	6E-10	4E-13
24433 MARBELLA AVE	Naphthalene	mg/kg	0.0019	Max	1.3E+04	3.5E+02	1E-07	6E-12
24433 MARBELLA AVE	Pyrene	mg/kg	0.0012	Max	1.5E+05	--	8E-09	--
24433 MARBELLA AVE	Tetrachloroethene	µg/kg	4.3	Max	7.5E+06	4.9E+04	6E-07	9E-11
24433 MARBELLA AVE	Toluene	µg/kg	0.61	Max	4.2E+08	--	2E-09	--
24433 MARBELLA AVE	TPH as Diesel	mg/kg	25	Max	1.1E+05	--	2E-04	--
24433 MARBELLA AVE	TPH as Gasoline	mg/kg	0.059	Max	6.6E+04	--	9E-07	--
24433 MARBELLA AVE	TPH as Motor Oil	mg/kg	54	Max	2.9E+05	--	2E-04	--
24433 MARBELLA AVE	Vanadium	mg/kg	63.5	Max	3.4E+04	--	2E-03	--
24433 MARBELLA AVE	Xylenes, Total	µg/kg	0.96	Max	4.9E+07	--	2E-08	--
24436 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.24	Max	7.2E+06	--	3E-08	--
24436 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.026	Max	3.5E+05	1.4E+03	7E-08	2E-11
24436 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.04	Max	2.0E+04	--	2E-06	--
24436 PANAMA AVE	Benzene	µg/kg	6.906	95UCL	5.8E+06	1.9E+04	1E-06	4E-10
24436 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.1E+04	1.1E+02	1E-05	2E-09
24436 PANAMA AVE	Ethylbenzene	µg/kg	1.009	95UCL	2.9E+08	4.2E+05	4E-09	2E-12
24436 PANAMA AVE	Naphthalene	mg/kg	0.0073	Max	1.3E+04	3.5E+02	6E-07	2E-11
24436 PANAMA AVE	Pyrene	mg/kg	0.0246	95UCL	1.5E+05	--	2E-07	--
24436 PANAMA AVE	Toluene	µg/kg	0.949	95UCL	4.2E+08	--	2E-09	--
24436 PANAMA AVE	TPH as Motor Oil	mg/kg	17	Max	2.9E+05	--	6E-05	--
24502 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	164.2	95UCL	7.2E+06	--	2E-05	--
24502 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	160	Max	7.4E+06	--	2E-05	--
24502 MARBELLA AVE	1-Methylnaphthalene	mg/kg	7.2	95UCL	3.5E+05	1.4E+03	2E-05	5E-09
24502 MARBELLA AVE	2-Methylnaphthalene	mg/kg	10.41	95UCL	2.0E+04	--	5E-04	--
24502 MARBELLA AVE	Benzene	µg/kg	11.36	95UCL	5.8E+06	1.9E+04	2E-06	6E-10
24502 MARBELLA AVE	Bromomethane	µg/kg	200	Max	7.7E+05	--	3E-04	--
24502 MARBELLA AVE	Cobalt	mg/kg	10.19	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24502 MARBELLA AVE	Ethylbenzene	µg/kg	1719	95UCL	2.9E+08	4.2E+05	6E-06	4E-09
24502 MARBELLA AVE	Naphthalene	mg/kg	4.528	95UCL	1.3E+04	3.5E+02	3E-04	1E-08

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24502 MARBELLA AVE	Pyrene	mg/kg	0.648	95UCL	1.5E+05	--	4E-06	--
24502 MARBELLA AVE	Toluene	µg/kg	15.79	95UCL	4.2E+08	--	4E-08	--
24502 MARBELLA AVE	TPH as Diesel	mg/kg	4588	95UCL	1.1E+05	--	4E-02	--
24502 MARBELLA AVE	TPH as Gasoline	mg/kg	607.5	95UCL	6.6E+04	--	9E-03	--
24502 MARBELLA AVE	TPH as Motor Oil	mg/kg	5659	95UCL	2.9E+05	--	2E-02	--
24502 MARBELLA AVE	Xylenes, Total	µg/kg	88.71	95UCL	4.9E+07	--	2E-06	--
24502 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	19.2	95UCL	7.2E+06	--	3E-06	--
24502 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	9.7	Max	7.4E+06	--	1E-06	--
24502 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.23	95UCL	3.5E+05	1.4E+03	7E-07	2E-10
24502 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.129	95UCL	2.0E+04	--	6E-06	--
24502 NEPTUNE AVE	Benzene	µg/kg	0.12	Max	5.8E+06	1.9E+04	2E-08	6E-12
24502 NEPTUNE AVE	Bromodichloromethane	µg/kg	27	Max	3.8E+07	4.2E+04	7E-07	6E-10
24502 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.28	Max	2.1E+04	1.1E+02	1E-05	3E-09
24502 NEPTUNE AVE	Ethylbenzene	µg/kg	72.07	95UCL	2.9E+08	4.2E+05	3E-07	2E-10
24502 NEPTUNE AVE	Naphthalene	mg/kg	0.304	95UCL	1.3E+04	3.5E+02	2E-05	9E-10
24502 NEPTUNE AVE	Pyrene	mg/kg	0.504	95UCL	1.5E+05	--	3E-06	--
24502 NEPTUNE AVE	Toluene	µg/kg	0.12	Max	4.2E+08	--	3E-10	--
24502 NEPTUNE AVE	TPH as Diesel	mg/kg	6373	95UCL	1.1E+05	--	6E-02	--
24502 NEPTUNE AVE	TPH as Gasoline	mg/kg	98.51	95UCL	6.6E+04	--	2E-03	--
24502 NEPTUNE AVE	TPH as Motor Oil	mg/kg	9677	95UCL	2.9E+05	--	3E-02	--
24502 NEPTUNE AVE	Xylenes, Total	µg/kg	16.03	95UCL	4.9E+07	--	3E-07	--
24502 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0053	Max	3.5E+05	1.4E+03	2E-08	4E-12
24502 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.01	Max	2.0E+04	--	5E-07	--
24502 PANAMA AVE	Benzene	µg/kg	3.549	95UCL	5.8E+06	1.9E+04	6E-07	2E-10
24502 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.26	Max	1.1E+05	3.0E+03	2E-06	9E-11
24502 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.082	Max	2.1E+04	1.1E+02	4E-06	7E-10
24502 PANAMA AVE	Ethylbenzene	µg/kg	0.627	95UCL	2.9E+08	4.2E+05	2E-09	2E-12
24502 PANAMA AVE	Naphthalene	mg/kg	0.0046	Max	1.3E+04	3.5E+02	4E-07	1E-11
24502 PANAMA AVE	Pyrene	mg/kg	0.0053	Max	1.5E+05	--	4E-08	--
24502 PANAMA AVE	Toluene	µg/kg	0.691	95UCL	4.2E+08	--	2E-09	--
24502 PANAMA AVE	TPH as Gasoline	mg/kg	0.061	Max	6.6E+04	--	9E-07	--
24502 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	420.4	95UCL	7.2E+06	--	6E-05	--
24502 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	44	Max	7.4E+06	--	6E-06	--
24502 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.168	95UCL	3.5E+05	1.4E+03	5E-07	1E-10
24502 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.264	95UCL	2.0E+04	--	1E-05	--
24502 RAVENNA AVE	Benzene	µg/kg	24.9	95UCL	5.8E+06	1.9E+04	4E-06	1E-09
24502 RAVENNA AVE	Bromomethane	µg/kg	650	Max	7.7E+05	--	9E-04	--
24502 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.1E+04	1.1E+02	2E-05	4E-09
24502 RAVENNA AVE	Ethylbenzene	µg/kg	247.1	95UCL	2.9E+08	4.2E+05	9E-07	6E-10
24502 RAVENNA AVE	Naphthalene	mg/kg	0.484	95UCL	1.3E+04	3.5E+02	4E-05	1E-09
24502 RAVENNA AVE	Pyrene	mg/kg	0.216	95UCL	1.5E+05	--	1E-06	--
24502 RAVENNA AVE	Toluene	µg/kg	0.37	Max	4.2E+08	--	9E-10	--
24502 RAVENNA AVE	TPH as Diesel	mg/kg	791.1	95UCL	1.1E+05	--	7E-03	--
24502 RAVENNA AVE	TPH as Gasoline	mg/kg	250	95UCL	6.6E+04	--	4E-03	--
24502 RAVENNA AVE	TPH as Motor Oil	mg/kg	1104	95UCL	2.9E+05	--	4E-03	--
24502 RAVENNA AVE	Xylenes, Total	µg/kg	80.53	95UCL	4.9E+07	--	2E-06	--
24503 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0016	Max	3.5E+05	1.4E+03	5E-09	1E-12
24503 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0035	Max	2.0E+04	--	2E-07	--
24503 MARBELLA AVE	Benzene	µg/kg	0.23	Max	5.8E+06	1.9E+04	4E-08	1E-11
24503 MARBELLA AVE	Cobalt	mg/kg	24.9	Max	2.1E+03	2.7E+06	1E-02	9E-12
24503 MARBELLA AVE	Naphthalene	mg/kg	0.037	Max	1.3E+04	3.5E+02	3E-06	1E-10
24503 MARBELLA AVE	Pyrene	mg/kg	0.002	Max	1.5E+05	--	1E-08	--
24503 MARBELLA AVE	Tetrachloroethene	µg/kg	1.7	Max	7.5E+06	4.9E+04	2E-07	4E-11
24503 MARBELLA AVE	TPH as Diesel	mg/kg	11	Max	1.1E+05	--	1E-04	--
24503 MARBELLA AVE	TPH as Motor Oil	mg/kg	38	Max	2.9E+05	--	1E-04	--
24503 MARBELLA AVE	Vanadium	mg/kg	48.4	Max	3.4E+04	--	1E-03	--
24503 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	498.7	95UCL	7.2E+06	--	7E-05	--
24503 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	204	95UCL	7.4E+06	--	3E-05	--
24503 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	3.582	95UCL	3.5E+05	1.4E+03	1E-05	3E-09
24503 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	5.223	95UCL	2.0E+04	--	3E-04	--
24503 NEPTUNE AVE	Benzene	µg/kg	41.86	95UCL	5.8E+06	1.9E+04	7E-06	2E-09
24503 NEPTUNE AVE	Ethylbenzene	µg/kg	1359	95UCL	2.9E+08	4.2E+05	5E-06	3E-09

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24503 NEPTUNE AVE	Naphthalene	mg/kg	3.086	95UCL	1.3E+04	3.5E+02	2E-04	9E-09
24503 NEPTUNE AVE	Pyrene	mg/kg	0.655	95UCL	1.5E+05	--	4E-06	--
24503 NEPTUNE AVE	Toluene	µg/kg	0.296	95UCL	4.2E+08	--	7E-10	--
24503 NEPTUNE AVE	TPH as Diesel	mg/kg	7054	95UCL	1.1E+05	--	6E-02	--
24503 NEPTUNE AVE	TPH as Gasoline	mg/kg	595.6	95UCL	6.6E+04	--	9E-03	--
24503 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7756	95UCL	2.9E+05	--	3E-02	--
24503 NEPTUNE AVE	Xylenes, Total	µg/kg	883.9	95UCL	4.9E+07	--	2E-05	--
24503 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	23	Max	7.2E+06	--	3E-06	--
24503 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.13	Max	7.4E+06	--	2E-08	--
24503 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.2	Max	3.5E+05	1.4E+03	6E-07	2E-10
24503 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.22	Max	2.0E+04	--	1E-05	--
24503 PANAMA AVE	Benzene	µg/kg	0.12	Max	5.8E+06	1.9E+04	2E-08	6E-12
24503 PANAMA AVE	Ethylbenzene	µg/kg	330	Max	2.9E+08	4.2E+05	1E-06	8E-10
24503 PANAMA AVE	Naphthalene	mg/kg	0.59	Max	1.3E+04	3.5E+02	5E-05	2E-09
24503 PANAMA AVE	Pyrene	mg/kg	0.27	Max	1.5E+05	--	2E-06	--
24503 PANAMA AVE	Toluene	µg/kg	0.26	Max	4.2E+08	--	6E-10	--
24503 PANAMA AVE	TPH as Diesel	mg/kg	2300	Max	1.1E+05	--	2E-02	--
24503 PANAMA AVE	TPH as Gasoline	mg/kg	230	Max	6.6E+04	--	4E-03	--
24503 PANAMA AVE	TPH as Motor Oil	mg/kg	3600	Max	2.9E+05	--	1E-02	--
24503 PANAMA AVE	Xylenes, Total	µg/kg	1.5	Max	4.9E+07	--	3E-08	--
24503 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	109.6	95UCL	7.2E+06	--	2E-05	--
24503 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	19.63	95UCL	7.4E+06	--	3E-06	--
24503 RAVENNA AVE	1-Methylnaphthalene	mg/kg	4.729	95UCL	3.5E+05	1.4E+03	1E-05	4E-09
24503 RAVENNA AVE	2-Methylnaphthalene	mg/kg	6.912	95UCL	2.0E+04	--	3E-04	--
24503 RAVENNA AVE	Benzene	µg/kg	1.933	95UCL	5.8E+06	1.9E+04	3E-07	1E-10
24503 RAVENNA AVE	Ethylbenzene	µg/kg	39.12	95UCL	2.9E+08	4.2E+05	1E-07	9E-11
24503 RAVENNA AVE	Naphthalene	mg/kg	2.56	95UCL	1.3E+04	3.5E+02	2E-04	7E-09
24503 RAVENNA AVE	Pyrene	mg/kg	0.997	95UCL	1.5E+05	--	7E-06	--
24503 RAVENNA AVE	Toluene	µg/kg	0.72	Max	4.2E+08	--	2E-09	--
24503 RAVENNA AVE	TPH as Diesel	mg/kg	1552	95UCL	1.1E+05	--	1E-02	--
24503 RAVENNA AVE	TPH as Gasoline	mg/kg	629	95UCL	6.6E+04	--	1E-02	--
24503 RAVENNA AVE	TPH as Motor Oil	mg/kg	1883	95UCL	2.9E+05	--	7E-03	--
24503 RAVENNA AVE	Xylenes, Total	µg/kg	18.14	95UCL	4.9E+07	--	4E-07	--
24506 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	11717	95UCL	7.2E+06	--	2E-03	--
24506 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	9000	Max	7.4E+06	--	1E-03	--
24506 MARBELLA AVE	1-Methylnaphthalene	mg/kg	13.14	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24506 MARBELLA AVE	2-Methylnaphthalene	mg/kg	22.14	95UCL	2.0E+04	--	1E-03	--
24506 MARBELLA AVE	Benzene	µg/kg	4700	Max	5.8E+06	1.9E+04	8E-04	2E-07
24506 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.1	Max	1.1E+05	3.0E+03	1E-05	4E-10
24506 MARBELLA AVE	Cobalt	mg/kg	10.47	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24506 MARBELLA AVE	Ethylbenzene	µg/kg	14000	Max	2.9E+08	4.2E+05	5E-05	3E-08
24506 MARBELLA AVE	Naphthalene	mg/kg	8.23	95UCL	1.3E+04	3.5E+02	6E-04	2E-08
24506 MARBELLA AVE	Pyrene	mg/kg	1.704	95UCL	1.5E+05	--	1E-05	--
24506 MARBELLA AVE	Toluene	µg/kg	10000	Max	4.2E+08	--	2E-05	--
24506 MARBELLA AVE	TPH as Diesel	mg/kg	10905	95UCL	1.1E+05	--	1E-01	--
24506 MARBELLA AVE	TPH as Gasoline	mg/kg	2354	95UCL	6.6E+04	--	4E-02	--
24506 MARBELLA AVE	TPH as Motor Oil	mg/kg	11782	95UCL	2.9E+05	--	4E-02	--
24506 MARBELLA AVE	Xylenes, Total	µg/kg	66000	Max	4.9E+07	--	1E-03	--
24507 MARBELLA AVE	Cobalt	mg/kg	14.81	95UCL	2.1E+03	2.7E+06	7E-03	5E-12
24507 MARBELLA AVE	Naphthalene	mg/kg	0.0046	Max	1.3E+04	3.5E+02	4E-07	1E-11
24507 MARBELLA AVE	Pyrene	mg/kg	0.0026	Max	1.5E+05	--	2E-08	--
24507 MARBELLA AVE	Tetrachloroethene	µg/kg	1.689	95UCL	7.5E+06	4.9E+04	2E-07	4E-11
24507 MARBELLA AVE	Vanadium	mg/kg	61.44	95UCL	3.4E+04	--	2E-03	--
24508 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	4707	95UCL	7.2E+06	--	7E-04	--
24508 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	2200	Max	7.4E+06	--	3E-04	--
24508 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	9.839	95UCL	3.5E+05	1.4E+03	3E-05	7E-09
24508 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	16.29	95UCL	2.0E+04	--	8E-04	--
24508 NEPTUNE AVE	Benzene	µg/kg	1118	95UCL	5.8E+06	1.9E+04	2E-04	6E-08
24508 NEPTUNE AVE	Ethylbenzene	µg/kg	3828	95UCL	2.9E+08	4.2E+05	1E-05	9E-09
24508 NEPTUNE AVE	Naphthalene	mg/kg	6.486	95UCL	1.3E+04	3.5E+02	5E-04	2E-08
24508 NEPTUNE AVE	Pyrene	mg/kg	0.54	95UCL	1.5E+05	--	4E-06	--
24508 NEPTUNE AVE	TPH as Diesel	mg/kg	6828	95UCL	1.1E+05	--	6E-02	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24508 NEPTUNE AVE	TPH as Gasoline	mg/kg	854.4	95UCL	6.6E+04	--	1E-02	--
24508 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7043	95UCL	2.9E+05	--	2E-02	--
24508 NEPTUNE AVE	Xylenes, Total	µg/kg	2155	95UCL	4.9E+07	--	4E-05	--
24508 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0015	Max	3.5E+05	1.4E+03	4E-09	1E-12
24508 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0025	Max	2.0E+04	--	1E-07	--
24508 PANAMA AVE	Benzene	µg/kg	9.6	Max	5.8E+06	1.9E+04	2E-06	5E-10
24508 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.19	Max	1.1E+05	3.0E+03	2E-06	6E-11
24508 PANAMA AVE	Ethylbenzene	µg/kg	1.3	Max	2.9E+08	4.2E+05	5E-09	3E-12
24508 PANAMA AVE	Pyrene	mg/kg	0.0012	Max	1.5E+05	--	8E-09	--
24508 PANAMA AVE	Toluene	µg/kg	1.2	Max	4.2E+08	--	3E-09	--
24508 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	48100	95UCL	7.2E+06	--	7E-03	--
24508 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	13000	95UCL	7.4E+06	--	2E-03	--
24508 RAVENNA AVE	1-Methylnaphthalene	mg/kg	16.39	95UCL	3.5E+05	1.4E+03	5E-05	1E-08
24508 RAVENNA AVE	2-Methylnaphthalene	mg/kg	24.81	95UCL	2.0E+04	--	1E-03	--
24508 RAVENNA AVE	Benzene	µg/kg	5673	95UCL	5.8E+06	1.9E+04	1E-03	3E-07
24508 RAVENNA AVE	Cobalt	mg/kg	10.43	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24508 RAVENNA AVE	Ethylbenzene	µg/kg	11210	95UCL	2.9E+08	4.2E+05	4E-05	3E-08
24508 RAVENNA AVE	Naphthalene	mg/kg	11.14	95UCL	1.3E+04	3.5E+02	8E-04	3E-08
24508 RAVENNA AVE	Pyrene	mg/kg	0.861	95UCL	1.5E+05	--	6E-06	--
24508 RAVENNA AVE	Toluene	µg/kg	150	Max	4.2E+08	--	4E-07	--
24508 RAVENNA AVE	TPH as Diesel	mg/kg	11725	95UCL	1.1E+05	--	1E-01	--
24508 RAVENNA AVE	TPH as Gasoline	mg/kg	2329	95UCL	6.6E+04	--	4E-02	--
24508 RAVENNA AVE	TPH as Motor Oil	mg/kg	10069	95UCL	2.9E+05	--	4E-02	--
24508 RAVENNA AVE	Xylenes, Total	µg/kg	53700	95UCL	4.9E+07	--	1E-03	--
24509 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.357	95UCL	7.2E+06	--	5E-08	--
24509 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.089	Max	7.4E+06	--	1E-08	--
24509 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.838	95UCL	3.5E+05	1.4E+03	5E-06	1E-09
24509 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	3.9	95UCL	2.0E+04	--	2E-04	--
24509 NEPTUNE AVE	Benzene	µg/kg	0.197	95UCL	5.8E+06	1.9E+04	3E-08	1E-11
24509 NEPTUNE AVE	Ethylbenzene	µg/kg	19	Max	2.9E+08	4.2E+05	7E-08	5E-11
24509 NEPTUNE AVE	Naphthalene	mg/kg	1.234	95UCL	1.3E+04	3.5E+02	9E-05	4E-09
24509 NEPTUNE AVE	Pyrene	mg/kg	0.861	95UCL	1.5E+05	--	6E-06	--
24509 NEPTUNE AVE	Toluene	µg/kg	0.272	95UCL	4.2E+08	--	7E-10	--
24509 NEPTUNE AVE	TPH as Diesel	mg/kg	2635	95UCL	1.1E+05	--	2E-02	--
24509 NEPTUNE AVE	TPH as Gasoline	mg/kg	108.3	95UCL	6.6E+04	--	2E-03	--
24509 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3266	95UCL	2.9E+05	--	1E-02	--
24509 NEPTUNE AVE	Xylenes, Total	µg/kg	34.56	95UCL	4.9E+07	--	7E-07	--
24509 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	6869	95UCL	7.2E+06	--	1E-03	--
24509 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	1062	95UCL	7.4E+06	--	1E-04	--
24509 PANAMA AVE	1-Methylnaphthalene	mg/kg	7.874	95UCL	3.5E+05	1.4E+03	2E-05	6E-09
24509 PANAMA AVE	2-Methylnaphthalene	mg/kg	11.93	95UCL	2.0E+04	--	6E-04	--
24509 PANAMA AVE	Benzene	µg/kg	826.7	95UCL	5.8E+06	1.9E+04	1E-04	4E-08
24509 PANAMA AVE	Ethylbenzene	µg/kg	5865	95UCL	2.9E+08	4.2E+05	2E-05	1E-08
24509 PANAMA AVE	Naphthalene	mg/kg	5.074	95UCL	1.3E+04	3.5E+02	4E-04	2E-08
24509 PANAMA AVE	Pyrene	mg/kg	0.521	95UCL	1.5E+05	--	4E-06	--
24509 PANAMA AVE	Toluene	µg/kg	40	Max	4.2E+08	--	1E-07	--
24509 PANAMA AVE	TPH as Diesel	mg/kg	7209	95UCL	1.1E+05	--	7E-02	--
24509 PANAMA AVE	TPH as Gasoline	mg/kg	1206	95UCL	6.6E+04	--	2E-02	--
24509 PANAMA AVE	TPH as Motor Oil	mg/kg	6465	95UCL	2.9E+05	--	2E-02	--
24509 PANAMA AVE	Xylenes, Total	µg/kg	7425	95UCL	4.9E+07	--	2E-04	--
24509 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	18837	95UCL	7.2E+06	--	3E-03	--
24509 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	5285	95UCL	7.4E+06	--	7E-04	--
24509 RAVENNA AVE	1-Methylnaphthalene	mg/kg	13.29	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24509 RAVENNA AVE	2-Methylnaphthalene	mg/kg	21.37	95UCL	2.0E+04	--	1E-03	--
24509 RAVENNA AVE	Benzene	µg/kg	6896	95UCL	5.8E+06	1.9E+04	1E-03	4E-07
24509 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	2.1E+04	1.1E+02	1E-05	2E-09
24509 RAVENNA AVE	Ethylbenzene	µg/kg	8218	95UCL	2.9E+08	4.2E+05	3E-05	2E-08
24509 RAVENNA AVE	Naphthalene	mg/kg	8.625	95UCL	1.3E+04	3.5E+02	7E-04	3E-08
24509 RAVENNA AVE	Pyrene	mg/kg	1.942	95UCL	1.5E+05	--	1E-05	--
24509 RAVENNA AVE	Toluene	µg/kg	0.25	Max	4.2E+08	--	6E-10	--
24509 RAVENNA AVE	TPH as Diesel	mg/kg	9166	95UCL	1.1E+05	--	8E-02	--
24509 RAVENNA AVE	TPH as Gasoline	mg/kg	1702	95UCL	6.6E+04	--	3E-02	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24509 RAVENNA AVE	TPH as Motor Oil	mg/kg	15000	95UCL	2.9E+05	--	5E-02	--
24509 RAVENNA AVE	Xylenes, Total	µg/kg	19216	95UCL	4.9E+07	--	4E-04	--
24512 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	10834	95UCL	7.2E+06	--	2E-03	--
24512 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1802	95UCL	7.4E+06	--	2E-04	--
24512 MARBELLA AVE	1-Methylnaphthalene	mg/kg	16	95UCL	3.5E+05	1.4E+03	5E-05	1E-08
24512 MARBELLA AVE	2-Methylnaphthalene	mg/kg	26	95UCL	2.0E+04	--	1E-03	--
24512 MARBELLA AVE	Benzene	µg/kg	726.3	95UCL	5.8E+06	1.9E+04	1E-04	4E-08
24512 MARBELLA AVE	Bromomethane	µg/kg	2.7	Max	7.7E+05	--	4E-06	--
24512 MARBELLA AVE	Cobalt	mg/kg	11.22	95UCL	2.1E+03	2.7E+06	6E-03	4E-12
24512 MARBELLA AVE	Ethylbenzene	µg/kg	7027	95UCL	2.9E+08	4.2E+05	3E-05	2E-08
24512 MARBELLA AVE	Naphthalene	mg/kg	8.79	95UCL	1.3E+04	3.5E+02	7E-04	3E-08
24512 MARBELLA AVE	Pyrene	mg/kg	1.083	95UCL	1.5E+05	--	7E-06	--
24512 MARBELLA AVE	Toluene	µg/kg	270	Max	4.2E+08	--	6E-07	--
24512 MARBELLA AVE	TPH as Diesel	mg/kg	15668	95UCL	1.1E+05	--	1E-01	--
24512 MARBELLA AVE	TPH as Gasoline	mg/kg	1282	95UCL	6.6E+04	--	2E-02	--
24512 MARBELLA AVE	TPH as Motor Oil	mg/kg	20223	95UCL	2.9E+05	--	7E-02	--
24512 MARBELLA AVE	Vanadium	mg/kg	45.44	95UCL	3.4E+04	--	1E-03	--
24512 MARBELLA AVE	Xylenes, Total	µg/kg	7544	95UCL	4.9E+07	--	2E-04	--
24512 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	3618	95UCL	7.2E+06	--	5E-04	--
24512 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	610	Max	7.4E+06	--	8E-05	--
24512 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	6.247	95UCL	3.5E+05	1.4E+03	2E-05	5E-09
24512 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	8.992	95UCL	2.0E+04	--	5E-04	--
24512 NEPTUNE AVE	Benzene	µg/kg	419.4	95UCL	5.8E+06	1.9E+04	7E-05	2E-08
24512 NEPTUNE AVE	Ethylbenzene	µg/kg	5684	95UCL	2.9E+08	4.2E+05	2E-05	1E-08
24512 NEPTUNE AVE	Naphthalene	mg/kg	5.432	95UCL	1.3E+04	3.5E+02	4E-04	2E-08
24512 NEPTUNE AVE	Pyrene	mg/kg	0.848	95UCL	1.5E+05	--	6E-06	--
24512 NEPTUNE AVE	TPH as Diesel	mg/kg	5728	95UCL	1.1E+05	--	5E-02	--
24512 NEPTUNE AVE	TPH as Gasoline	mg/kg	493.1	95UCL	6.6E+04	--	8E-03	--
24512 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7097	95UCL	2.9E+05	--	2E-02	--
24512 NEPTUNE AVE	Xylenes, Total	µg/kg	748.9	95UCL	4.9E+07	--	2E-05	--
24512 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0013	Max	3.5E+05	1.4E+03	4E-09	1E-12
24512 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0022	Max	2.0E+04	--	1E-07	--
24512 PANAMA AVE	Benzene	µg/kg	5.4	Max	5.8E+06	1.9E+04	9E-07	3E-10
24512 PANAMA AVE	Ethylbenzene	µg/kg	1	Max	2.9E+08	4.2E+05	4E-09	2E-12
24512 PANAMA AVE	Naphthalene	mg/kg	0.0014	Max	1.3E+04	3.5E+02	1E-07	4E-12
24512 PANAMA AVE	Pyrene	mg/kg	0.0093	Max	1.5E+05	--	6E-08	--
24512 PANAMA AVE	Toluene	µg/kg	0.93	Max	4.2E+08	--	2E-09	--
24512 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	9238	95UCL	7.2E+06	--	1E-03	--
24512 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	123.4	95UCL	7.4E+06	--	2E-05	--
24512 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.65	95UCL	3.5E+05	1.4E+03	1E-05	3E-09
24512 RAVENNA AVE	2-Methylnaphthalene	mg/kg	6.044	95UCL	2.0E+04	--	3E-04	--
24512 RAVENNA AVE	Benzene	µg/kg	823.3	95UCL	5.8E+06	1.9E+04	1E-04	4E-08
24512 RAVENNA AVE	Ethylbenzene	µg/kg	3761	95UCL	2.9E+08	4.2E+05	1E-05	9E-09
24512 RAVENNA AVE	Naphthalene	mg/kg	3.195	95UCL	1.3E+04	3.5E+02	2E-04	9E-09
24512 RAVENNA AVE	Pyrene	mg/kg	0.82	95UCL	1.5E+05	--	6E-06	--
24512 RAVENNA AVE	Toluene	µg/kg	25.83	95UCL	4.2E+08	--	6E-08	--
24512 RAVENNA AVE	TPH as Diesel	mg/kg	4228	95UCL	1.1E+05	--	4E-02	--
24512 RAVENNA AVE	TPH as Gasoline	mg/kg	655.1	95UCL	6.6E+04	--	1E-02	--
24512 RAVENNA AVE	TPH as Motor Oil	mg/kg	4001	95UCL	2.9E+05	--	1E-02	--
24512 RAVENNA AVE	Xylenes, Total	µg/kg	1538	95UCL	4.9E+07	--	3E-05	--
24513 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	5827	95UCL	7.2E+06	--	8E-04	--
24513 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	578.6	95UCL	7.4E+06	--	8E-05	--
24513 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	8.319	95UCL	3.5E+05	1.4E+03	2E-05	6E-09
24513 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	25.2	95UCL	2.0E+04	--	1E-03	--
24513 NEPTUNE AVE	Benzene	µg/kg	920	Max	5.8E+06	1.9E+04	2E-04	5E-08
24513 NEPTUNE AVE	Bromomethane	µg/kg	420	Max	7.7E+05	--	6E-04	--
24513 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.1E+04	1.1E+02	1E-05	2E-09
24513 NEPTUNE AVE	Ethylbenzene	µg/kg	2516	95UCL	2.9E+08	4.2E+05	9E-06	6E-09
24513 NEPTUNE AVE	Naphthalene	mg/kg	5.558	95UCL	1.3E+04	3.5E+02	4E-04	2E-08
24513 NEPTUNE AVE	Pyrene	mg/kg	1.045	95UCL	1.5E+05	--	7E-06	--
24513 NEPTUNE AVE	TPH as Diesel	mg/kg	5714	95UCL	1.1E+05	--	5E-02	--
24513 NEPTUNE AVE	TPH as Gasoline	mg/kg	619	95UCL	6.6E+04	--	9E-03	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24513 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7449	95UCL	2.9E+05	--	3E-02	--
24513 NEPTUNE AVE	Xylenes, Total	µg/kg	1162	95UCL	4.9E+07	--	2E-05	--
24513 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	11766	95UCL	7.2E+06	--	2E-03	--
24513 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	1750	95UCL	7.4E+06	--	2E-04	--
24513 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	440	Max	3.2E+08	2.4E+05	1E-06	2E-09
24513 PANAMA AVE	1-Methylnaphthalene	mg/kg	12.57	95UCL	3.5E+05	1.4E+03	4E-05	9E-09
24513 PANAMA AVE	2-Methylnaphthalene	mg/kg	20.4	95UCL	2.0E+04	--	1E-03	--
24513 PANAMA AVE	Benzene	µg/kg	1493	95UCL	5.8E+06	1.9E+04	3E-04	8E-08
24513 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.26	Max	1.1E+05	3.0E+03	2E-06	9E-11
24513 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.3	Max	2.1E+04	1.1E+02	2E-05	3E-09
24513 PANAMA AVE	Ethylbenzene	µg/kg	6226	95UCL	2.9E+08	4.2E+05	2E-05	2E-08
24513 PANAMA AVE	Naphthalene	mg/kg	6.55	95UCL	1.3E+04	3.5E+02	5E-04	2E-08
24513 PANAMA AVE	Pyrene	mg/kg	0.557	95UCL	1.5E+05	--	4E-06	--
24513 PANAMA AVE	Toluene	µg/kg	15.06	95UCL	4.2E+08	--	4E-08	--
24513 PANAMA AVE	TPH as Diesel	mg/kg	8773	95UCL	1.1E+05	--	8E-02	--
24513 PANAMA AVE	TPH as Gasoline	mg/kg	1090	95UCL	6.6E+04	--	2E-02	--
24513 PANAMA AVE	TPH as Motor Oil	mg/kg	7304	95UCL	2.9E+05	--	3E-02	--
24513 PANAMA AVE	Xylenes, Total	µg/kg	6082	95UCL	4.9E+07	--	1E-04	--
24513 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	3050	95UCL	7.2E+06	--	4E-04	--
24513 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	665.8	95UCL	7.4E+06	--	9E-05	--
24513 RAVENNA AVE	1-Methylnaphthalene	mg/kg	12.96	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24513 RAVENNA AVE	2-Methylnaphthalene	mg/kg	19.96	95UCL	2.0E+04	--	1E-03	--
24513 RAVENNA AVE	Benzene	µg/kg	207.4	95UCL	5.8E+06	1.9E+04	4E-05	1E-08
24513 RAVENNA AVE	Ethylbenzene	µg/kg	2245	95UCL	2.9E+08	4.2E+05	8E-06	5E-09
24513 RAVENNA AVE	Naphthalene	mg/kg	9.109	95UCL	1.3E+04	3.5E+02	7E-04	3E-08
24513 RAVENNA AVE	Pyrene	mg/kg	1.18	95UCL	1.5E+05	--	8E-06	--
24513 RAVENNA AVE	Toluene	µg/kg	0.21	Max	4.2E+08	--	5E-10	--
24513 RAVENNA AVE	TPH as Diesel	mg/kg	11198	95UCL	1.1E+05	--	1E-01	--
24513 RAVENNA AVE	TPH as Gasoline	mg/kg	824.3	95UCL	6.6E+04	--	1E-02	--
24513 RAVENNA AVE	TPH as Motor Oil	mg/kg	11396	95UCL	2.9E+05	--	4E-02	--
24513 RAVENNA AVE	Xylenes, Total	µg/kg	1065	95UCL	4.9E+07	--	2E-05	--
24516 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	42000	Max	7.2E+06	--	6E-03	--
24516 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	15000	Max	7.4E+06	--	2E-03	--
24516 MARBELLA AVE	1-Methylnaphthalene	mg/kg	44	Max	3.5E+05	1.4E+03	1E-04	3E-08
24516 MARBELLA AVE	2-Methylnaphthalene	mg/kg	75	Max	2.0E+04	--	4E-03	--
24516 MARBELLA AVE	Benzene	µg/kg	14000	Max	5.8E+06	1.9E+04	2E-03	7E-07
24516 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.28	Max	2.1E+04	1.1E+02	1E-05	3E-09
24516 MARBELLA AVE	Ethylbenzene	µg/kg	21000	Max	2.9E+08	4.2E+05	7E-05	5E-08
24516 MARBELLA AVE	Naphthalene	mg/kg	34	Max	1.3E+04	3.5E+02	3E-03	1E-07
24516 MARBELLA AVE	Pyrene	mg/kg	0.98	Max	1.5E+05	--	7E-06	--
24516 MARBELLA AVE	Toluene	µg/kg	2300	Max	4.2E+08	--	6E-06	--
24516 MARBELLA AVE	TPH as Diesel	mg/kg	23000	Max	1.1E+05	--	2E-01	--
24516 MARBELLA AVE	TPH as Gasoline	mg/kg	5500	Max	6.6E+04	--	8E-02	--
24516 MARBELLA AVE	TPH as Motor Oil	mg/kg	21000	Max	2.9E+05	--	7E-02	--
24516 MARBELLA AVE	Xylenes, Total	µg/kg	78000	Max	4.9E+07	--	2E-03	--
24517 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.25	Max	7.2E+06	--	4E-08	--
24517 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0007	Max	2.0E+04	--	4E-08	--
24517 MARBELLA AVE	Benzene	µg/kg	0.14	Max	5.8E+06	1.9E+04	2E-08	7E-12
24517 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.31	Max	2.1E+04	1.1E+02	2E-05	3E-09
24517 MARBELLA AVE	Cobalt	mg/kg	18.4	Max	2.1E+03	2.7E+06	9E-03	7E-12
24517 MARBELLA AVE	Naphthalene	mg/kg	0.0066	Max	1.3E+04	3.5E+02	5E-07	2E-11
24517 MARBELLA AVE	Pyrene	mg/kg	0.0069	Max	1.5E+05	--	5E-08	--
24517 MARBELLA AVE	Toluene	µg/kg	0.43	Max	4.2E+08	--	1E-09	--
24517 MARBELLA AVE	TPH as Gasoline	mg/kg	0.058	Max	6.6E+04	--	9E-07	--
24517 MARBELLA AVE	Vanadium	mg/kg	63	Max	3.4E+04	--	2E-03	--
24518 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	4507	95UCL	7.2E+06	--	6E-04	--
24518 NEPTUNE AVE	1,2-Dichloropropane	µg/kg	0.45	Max	1.3E+06	7.2E+04	4E-07	6E-12
24518 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	250	Max	7.4E+06	--	3E-05	--
24518 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	14.34	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24518 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	1.1	Max	1.1E+04	1.4E+02	1E-04	8E-09
24518 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	23.15	95UCL	2.0E+04	--	1E-03	--
24518 NEPTUNE AVE	Benzene	µg/kg	101.7	95UCL	5.8E+06	1.9E+04	2E-05	5E-09

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24518 NEPTUNE AVE	Bromomethane	µg/kg	510	Max	7.7E+05	--	7E-04	--
24518 NEPTUNE AVE	Cobalt	mg/kg	10.42	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24518 NEPTUNE AVE	Ethylbenzene	µg/kg	2063	95UCL	2.9E+08	4.2E+05	7E-06	5E-09
24518 NEPTUNE AVE	Naphthalene	mg/kg	6.711	95UCL	1.3E+04	3.5E+02	5E-04	2E-08
24518 NEPTUNE AVE	Pyrene	mg/kg	1.751	95UCL	1.5E+05	--	1E-05	--
24518 NEPTUNE AVE	Toluene	µg/kg	26.3	95UCL	4.2E+08	--	6E-08	--
24518 NEPTUNE AVE	TPH as Diesel	mg/kg	11830	95UCL	1.1E+05	--	1E-01	--
24518 NEPTUNE AVE	TPH as Gasoline	mg/kg	877	95UCL	6.6E+04	--	1E-02	--
24518 NEPTUNE AVE	TPH as Motor Oil	mg/kg	13811	95UCL	2.9E+05	--	5E-02	--
24518 NEPTUNE AVE	Xylenes, Total	µg/kg	474	95UCL	4.9E+07	--	1E-05	--
24518 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.18	Max	7.2E+06	--	3E-08	--
24518 PANAMA AVE	Benzene	µg/kg	6.221	95UCL	5.8E+06	1.9E+04	1E-06	3E-10
24518 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.32	Max	2.1E+04	1.1E+02	2E-05	3E-09
24518 PANAMA AVE	Ethylbenzene	µg/kg	0.877	95UCL	2.9E+08	4.2E+05	3E-09	2E-12
24518 PANAMA AVE	Naphthalene	mg/kg	0.00138	95UCL	1.3E+04	3.5E+02	1E-07	4E-12
24518 PANAMA AVE	Pyrene	mg/kg	0.00496	95UCL	1.5E+05	--	3E-08	--
24518 PANAMA AVE	Toluene	µg/kg	0.872	95UCL	4.2E+08	--	2E-09	--
24518 PANAMA AVE	TPH as Diesel	mg/kg	12	Max	1.1E+05	--	1E-04	--
24518 PANAMA AVE	TPH as Gasoline	mg/kg	0.06	Max	6.6E+04	--	9E-07	--
24518 PANAMA AVE	TPH as Motor Oil	mg/kg	16	Max	2.9E+05	--	6E-05	--
24518 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	11000	Max	7.2E+06	--	2E-03	--
24518 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	930	Max	7.4E+06	--	1E-04	--
24518 RAVENNA AVE	1-Methylnaphthalene	mg/kg	13	Max	3.5E+05	1.4E+03	4E-05	1E-08
24518 RAVENNA AVE	2-Methylnaphthalene	mg/kg	20	Max	2.0E+04	--	1E-03	--
24518 RAVENNA AVE	Benzene	µg/kg	480	Max	5.8E+06	1.9E+04	8E-05	3E-08
24518 RAVENNA AVE	Ethylbenzene	µg/kg	4300	Max	2.9E+08	4.2E+05	2E-05	1E-08
24518 RAVENNA AVE	Naphthalene	mg/kg	8.9	Max	1.3E+04	3.5E+02	7E-04	3E-08
24518 RAVENNA AVE	Pyrene	mg/kg	0.11	Max	1.5E+05	--	7E-07	--
24518 RAVENNA AVE	TPH as Diesel	mg/kg	7200	Max	1.1E+05	--	7E-02	--
24518 RAVENNA AVE	TPH as Gasoline	mg/kg	910	Max	6.6E+04	--	1E-02	--
24518 RAVENNA AVE	TPH as Motor Oil	mg/kg	6400	Max	2.9E+05	--	2E-02	--
24518 RAVENNA AVE	Xylenes, Total	µg/kg	2800	Max	4.9E+07	--	6E-05	--
24519 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	370.5	95UCL	7.2E+06	--	5E-05	--
24519 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	22	Max	7.4E+06	--	3E-06	--
24519 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	4.083	95UCL	3.5E+05	1.4E+03	1E-05	3E-09
24519 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	6.245	95UCL	2.0E+04	--	3E-04	--
24519 NEPTUNE AVE	Benzene	µg/kg	58.24	95UCL	5.8E+06	1.9E+04	1E-05	3E-09
24519 NEPTUNE AVE	Ethylbenzene	µg/kg	3400	95UCL	2.9E+08	4.2E+05	1E-05	8E-09
24519 NEPTUNE AVE	Naphthalene	mg/kg	2.873	95UCL	1.3E+04	3.5E+02	2E-04	8E-09
24519 NEPTUNE AVE	Pyrene	mg/kg	0.69	95UCL	1.5E+05	--	5E-06	--
24519 NEPTUNE AVE	Toluene	µg/kg	7.313	95UCL	4.2E+08	--	2E-08	--
24519 NEPTUNE AVE	TPH as Diesel	mg/kg	3511	95UCL	1.1E+05	--	3E-02	--
24519 NEPTUNE AVE	TPH as Gasoline	mg/kg	780	95UCL	6.6E+04	--	1E-02	--
24519 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3740	95UCL	2.9E+05	--	1E-02	--
24519 NEPTUNE AVE	Xylenes, Total	µg/kg	30.05	95UCL	4.9E+07	--	6E-07	--
24519 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	5800	Max	7.2E+06	--	8E-04	--
24519 PANAMA AVE	1-Methylnaphthalene	mg/kg	11	Max	3.5E+05	1.4E+03	3E-05	8E-09
24519 PANAMA AVE	2-Methylnaphthalene	mg/kg	16	Max	2.0E+04	--	8E-04	--
24519 PANAMA AVE	Benzene	µg/kg	440	Max	5.8E+06	1.9E+04	8E-05	2E-08
24519 PANAMA AVE	Ethylbenzene	µg/kg	3100	Max	2.9E+08	4.2E+05	1E-05	7E-09
24519 PANAMA AVE	Naphthalene	mg/kg	7.1	Max	1.3E+04	3.5E+02	5E-04	2E-08
24519 PANAMA AVE	Pyrene	mg/kg	0.19	Max	1.5E+05	--	1E-06	--
24519 PANAMA AVE	Toluene	µg/kg	0.64	Max	4.2E+08	--	2E-09	--
24519 PANAMA AVE	TPH as Diesel	mg/kg	12000	Max	1.1E+05	--	1E-01	--
24519 PANAMA AVE	TPH as Gasoline	mg/kg	720	Max	6.6E+04	--	1E-02	--
24519 PANAMA AVE	TPH as Motor Oil	mg/kg	11000	Max	2.9E+05	--	4E-02	--
24519 PANAMA AVE	Xylenes, Total	µg/kg	590	Max	4.9E+07	--	1E-05	--
24522 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1100	Max	7.2E+06	--	2E-04	--
24522 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	44	Max	7.4E+06	--	6E-06	--
24522 MARBELLA AVE	1-Methylnaphthalene	mg/kg	15.51	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24522 MARBELLA AVE	2-Methylnaphthalene	mg/kg	20.1	95UCL	2.0E+04	--	1E-03	--
24522 MARBELLA AVE	Benzene	µg/kg	250	Max	5.8E+06	1.9E+04	4E-05	1E-08

Appendix E
Detailed Risk Calculations

Table E-3
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Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24522 MARBELLA AVE	Bromodichloromethane	µg/kg	2.4	Max	3.8E+07	4.2E+04	6E-08	6E-11
24522 MARBELLA AVE	Cobalt	mg/kg	13.65	95UCL	2.1E+03	2.7E+06	7E-03	5E-12
24522 MARBELLA AVE	Ethylbenzene	µg/kg	14000	Max	2.9E+08	4.2E+05	5E-05	3E-08
24522 MARBELLA AVE	Naphthalene	mg/kg	9.57	95UCL	1.3E+04	3.5E+02	7E-04	3E-08
24522 MARBELLA AVE	Pyrene	mg/kg	0.44	Max	1.5E+05	--	3E-06	--
24522 MARBELLA AVE	Toluene	µg/kg	81	Max	4.2E+08	--	2E-07	--
24522 MARBELLA AVE	TPH as Diesel	mg/kg	19953	95UCL	1.1E+05	--	2E-01	--
24522 MARBELLA AVE	TPH as Gasoline	mg/kg	950	95UCL	6.6E+04	--	1E-02	--
24522 MARBELLA AVE	TPH as Motor Oil	mg/kg	18750	95UCL	2.9E+05	--	7E-02	--
24522 MARBELLA AVE	Trichloroethene	µg/kg	0.69	Max	5.0E+05	1.0E+05	1E-06	7E-12
24522 MARBELLA AVE	Vanadium	mg/kg	48.14	95UCL	3.4E+04	--	1E-03	--
24522 MARBELLA AVE	Xylenes, Total	µg/kg	270	Max	4.9E+07	--	6E-06	--
24522 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	97.89	95UCL	7.2E+06	--	1E-05	--
24522 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	26	Max	7.4E+06	--	4E-06	--
24522 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	5.387	95UCL	3.5E+05	1.4E+03	2E-05	4E-09
24522 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	8.41	95UCL	2.0E+04	--	4E-04	--
24522 NEPTUNE AVE	Benzene	µg/kg	135.4	95UCL	5.8E+06	1.9E+04	2E-05	7E-09
24522 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.35	Max	2.1E+04	1.1E+02	2E-05	3E-09
24522 NEPTUNE AVE	Cobalt	mg/kg	10.43	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24522 NEPTUNE AVE	Ethylbenzene	µg/kg	1875	95UCL	2.9E+08	4.2E+05	7E-06	5E-09
24522 NEPTUNE AVE	Naphthalene	mg/kg	3.894	95UCL	1.3E+04	3.5E+02	3E-04	1E-08
24522 NEPTUNE AVE	Pyrene	mg/kg	0.379	95UCL	1.5E+05	--	3E-06	--
24522 NEPTUNE AVE	TPH as Diesel	mg/kg	3639	95UCL	1.1E+05	--	3E-02	--
24522 NEPTUNE AVE	TPH as Gasoline	mg/kg	407.6	95UCL	6.6E+04	--	6E-03	--
24522 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4375	95UCL	2.9E+05	--	2E-02	--
24522 NEPTUNE AVE	Xylenes, Total	µg/kg	110	Max	4.9E+07	--	2E-06	--
24522 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.13	Max	7.2E+06	--	2E-08	--
24522 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.015	Max	3.5E+05	1.4E+03	4E-08	1E-11
24522 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.02	Max	2.0E+04	--	1E-06	--
24522 PANAMA AVE	Benzene	µg/kg	4.213	95UCL	5.8E+06	1.9E+04	7E-07	2E-10
24522 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.36	Max	2.1E+04	1.1E+02	2E-05	3E-09
24522 PANAMA AVE	Ethylbenzene	µg/kg	0.611	95UCL	2.9E+08	4.2E+05	2E-09	2E-12
24522 PANAMA AVE	Naphthalene	mg/kg	0.0034	Max	1.3E+04	3.5E+02	3E-07	1E-11
24522 PANAMA AVE	Pyrene	mg/kg	0.0164	95UCL	1.5E+05	--	1E-07	--
24522 PANAMA AVE	Toluene	µg/kg	0.566	95UCL	4.2E+08	--	1E-09	--
24522 PANAMA AVE	TPH as Gasoline	mg/kg	0.063	Max	6.6E+04	--	1E-06	--
24522 PANAMA AVE	TPH as Motor Oil	mg/kg	26	Max	2.9E+05	--	9E-05	--
24522 PANAMA AVE	Xylenes, Total	µg/kg	0.38	Max	4.9E+07	--	8E-09	--
24522 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	3958	95UCL	7.2E+06	--	6E-04	--
24522 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1300	Max	7.4E+06	--	2E-04	--
24522 RAVENNA AVE	1-Methylnaphthalene	mg/kg	5.45	95UCL	3.5E+05	1.4E+03	2E-05	4E-09
24522 RAVENNA AVE	2-Methylnaphthalene	mg/kg	7.496	95UCL	2.0E+04	--	4E-04	--
24522 RAVENNA AVE	Benzene	µg/kg	214.9	95UCL	5.8E+06	1.9E+04	4E-05	1E-08
24522 RAVENNA AVE	Ethylbenzene	µg/kg	1772	95UCL	2.9E+08	4.2E+05	6E-06	4E-09
24522 RAVENNA AVE	Naphthalene	mg/kg	3.337	95UCL	1.3E+04	3.5E+02	3E-04	1E-08
24522 RAVENNA AVE	Pyrene	mg/kg	0.397	95UCL	1.5E+05	--	3E-06	--
24522 RAVENNA AVE	Toluene	µg/kg	19.37	95UCL	4.2E+08	--	5E-08	--
24522 RAVENNA AVE	TPH as Diesel	mg/kg	6805	95UCL	1.1E+05	--	6E-02	--
24522 RAVENNA AVE	TPH as Gasoline	mg/kg	532	95UCL	6.6E+04	--	8E-03	--
24522 RAVENNA AVE	TPH as Motor Oil	mg/kg	6288	95UCL	2.9E+05	--	2E-02	--
24522 RAVENNA AVE	Xylenes, Total	µg/kg	524	95UCL	4.9E+07	--	1E-05	--
24523 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.26	Max	7.2E+06	--	4E-08	--
24523 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.014	Max	3.5E+05	1.4E+03	4E-08	1E-11
24523 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00556	95UCL	2.0E+04	--	3E-07	--
24523 MARBELLA AVE	Benzene	µg/kg	0.16	Max	5.8E+06	1.9E+04	3E-08	8E-12
24523 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.52	Max	2.1E+04	1.1E+02	3E-05	5E-09
24523 MARBELLA AVE	Cobalt	mg/kg	11.17	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24523 MARBELLA AVE	Naphthalene	mg/kg	0.0045	95UCL	1.3E+04	3.5E+02	3E-07	1E-11
24523 MARBELLA AVE	Pyrene	mg/kg	0.00717	95UCL	1.5E+05	--	5E-08	--
24523 MARBELLA AVE	Tetrachloroethene	µg/kg	2.198	95UCL	7.5E+06	4.9E+04	3E-07	5E-11
24523 MARBELLA AVE	Toluene	µg/kg	0.18	Max	4.2E+08	--	4E-10	--
24523 MARBELLA AVE	TPH as Diesel	mg/kg	23	Max	1.1E+05	--	2E-04	--

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Detailed Risk Calculations

Table E-3
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Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24523 MARBELLA AVE	TPH as Motor Oil	mg/kg	45	Max	2.9E+05	--	2E-04	--
24523 MARBELLA AVE	Xylenes, Total	µg/kg	0.21	Max	4.9E+07	--	4E-09	--
24523 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	11498	95UCL	7.2E+06	--	2E-03	--
24523 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	12000	Max	7.4E+06	--	2E-03	--
24523 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	16.92	95UCL	3.5E+05	1.4E+03	5E-05	1E-08
24523 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	33	95UCL	2.0E+04	--	2E-03	--
24523 NEPTUNE AVE	Benzene	µg/kg	4231	95UCL	5.8E+06	1.9E+04	7E-04	2E-07
24523 NEPTUNE AVE	Cobalt	mg/kg	10.52	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24523 NEPTUNE AVE	Ethylbenzene	µg/kg	6772	95UCL	2.9E+08	4.2E+05	2E-05	2E-08
24523 NEPTUNE AVE	Naphthalene	mg/kg	7.711	95UCL	1.3E+04	3.5E+02	6E-04	2E-08
24523 NEPTUNE AVE	Pyrene	mg/kg	1.336	95UCL	1.5E+05	--	9E-06	--
24523 NEPTUNE AVE	Toluene	µg/kg	320	Max	4.2E+08	--	8E-07	--
24523 NEPTUNE AVE	TPH as Diesel	mg/kg	7786	95UCL	1.1E+05	--	7E-02	--
24523 NEPTUNE AVE	TPH as Gasoline	mg/kg	2704	95UCL	6.6E+04	--	4E-02	--
24523 NEPTUNE AVE	TPH as Motor Oil	mg/kg	11000	95UCL	2.9E+05	--	4E-02	--
24523 NEPTUNE AVE	Xylenes, Total	µg/kg	20104	95UCL	4.9E+07	--	4E-04	--
24523 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	120	Max	7.2E+06	--	2E-05	--
24523 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	31	Max	7.4E+06	--	4E-06	--
24523 RAVENNA AVE	1-Methylnaphthalene	mg/kg	11	Max	3.5E+05	1.4E+03	3E-05	8E-09
24523 RAVENNA AVE	2-Methylnaphthalene	mg/kg	17	Max	2.0E+04	--	9E-04	--
24523 RAVENNA AVE	Benzene	µg/kg	80	Max	5.8E+06	1.9E+04	1E-05	4E-09
24523 RAVENNA AVE	Bromomethane	µg/kg	290	Max	7.7E+05	--	4E-04	--
24523 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.075	Max	2.1E+04	1.1E+02	4E-06	7E-10
24523 RAVENNA AVE	Ethylbenzene	µg/kg	4400	Max	2.9E+08	4.2E+05	2E-05	1E-08
24523 RAVENNA AVE	Naphthalene	mg/kg	5.6	Max	1.3E+04	3.5E+02	4E-04	2E-08
24523 RAVENNA AVE	Pyrene	mg/kg	0.87	Max	1.5E+05	--	6E-06	--
24523 RAVENNA AVE	Toluene	µg/kg	24	Max	4.2E+08	--	6E-08	--
24523 RAVENNA AVE	TPH as Diesel	mg/kg	7100	Max	1.1E+05	--	7E-02	--
24523 RAVENNA AVE	TPH as Gasoline	mg/kg	770	Max	6.6E+04	--	1E-02	--
24523 RAVENNA AVE	TPH as Motor Oil	mg/kg	7900	Max	2.9E+05	--	3E-02	--
24523 RAVENNA AVE	Xylenes, Total	µg/kg	34	Max	4.9E+07	--	7E-07	--
24526 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	29889	95UCL	7.2E+06	--	4E-03	--
24526 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	6433	95UCL	7.4E+06	--	9E-04	--
24526 MARBELLA AVE	1-Methylnaphthalene	mg/kg	21.22	95UCL	3.5E+05	1.4E+03	6E-05	2E-08
24526 MARBELLA AVE	2-Methylnaphthalene	mg/kg	31.22	95UCL	2.0E+04	--	2E-03	--
24526 MARBELLA AVE	Benzene	µg/kg	8856	95UCL	5.8E+06	1.9E+04	2E-03	5E-07
24526 MARBELLA AVE	Cobalt	mg/kg	10.44	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24526 MARBELLA AVE	Ethylbenzene	µg/kg	18889	95UCL	2.9E+08	4.2E+05	7E-05	5E-08
24526 MARBELLA AVE	Naphthalene	mg/kg	16.61	95UCL	1.3E+04	3.5E+02	1E-03	5E-08
24526 MARBELLA AVE	Pyrene	mg/kg	0.813	95UCL	1.5E+05	--	5E-06	--
24526 MARBELLA AVE	Toluene	µg/kg	268.9	95UCL	4.2E+08	--	6E-07	--
24526 MARBELLA AVE	TPH as Diesel	mg/kg	13016	95UCL	1.1E+05	--	1E-01	--
24526 MARBELLA AVE	TPH as Gasoline	mg/kg	2608	95UCL	6.6E+04	--	4E-02	--
24526 MARBELLA AVE	TPH as Motor Oil	mg/kg	12607	95UCL	2.9E+05	--	4E-02	--
24526 MARBELLA AVE	Xylenes, Total	µg/kg	27222	95UCL	4.9E+07	--	6E-04	--
24528 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	59	Max	7.2E+06	--	8E-06	--
24528 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	17	Max	7.4E+06	--	2E-06	--
24528 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.5	Max	3.5E+05	1.4E+03	7E-06	2E-09
24528 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	1.6	Max	2.0E+04	--	8E-05	--
24528 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.28	Max	2.1E+04	1.1E+02	1E-05	3E-09
24528 NEPTUNE AVE	Ethylbenzene	µg/kg	410	Max	2.9E+08	4.2E+05	1E-06	1E-09
24528 NEPTUNE AVE	Naphthalene	mg/kg	1.6	Max	1.3E+04	3.5E+02	1E-04	5E-09
24528 NEPTUNE AVE	Pyrene	mg/kg	0.028	Max	1.5E+05	--	2E-07	--
24528 NEPTUNE AVE	Toluene	µg/kg	140	Max	4.2E+08	--	3E-07	--
24528 NEPTUNE AVE	TPH as Diesel	mg/kg	2400	Max	1.1E+05	--	2E-02	--
24528 NEPTUNE AVE	TPH as Gasoline	mg/kg	370	Max	6.6E+04	--	6E-03	--
24528 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2100	Max	2.9E+05	--	7E-03	--
24528 NEPTUNE AVE	Trichloroethene	µg/kg	720	Max	5.0E+05	1.0E+05	1E-03	7E-09
24528 NEPTUNE AVE	Xylenes, Total	µg/kg	130	Max	4.9E+07	--	3E-06	--
24528 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00379	95UCL	3.5E+05	1.4E+03	1E-08	3E-12
24528 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00644	95UCL	2.0E+04	--	3E-07	--
24528 PANAMA AVE	Benzene	µg/kg	1.7	Max	5.8E+06	1.9E+04	3E-07	9E-11

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24528 PANAMA AVE	Ethylbenzene	µg/kg	0.29	Max	2.9E+08	4.2E+05	1E-09	7E-13
24528 PANAMA AVE	Naphthalene	mg/kg	0.0109	95UCL	1.3E+04	3.5E+02	8E-07	3E-11
24528 PANAMA AVE	Pyrene	mg/kg	0.0233	95UCL	1.5E+05	--	2E-07	--
24528 PANAMA AVE	Toluene	µg/kg	0.56	Max	4.2E+08	--	1E-09	--
24528 PANAMA AVE	TPH as Diesel	mg/kg	14	Max	1.1E+05	--	1E-04	--
24528 PANAMA AVE	TPH as Gasoline	mg/kg	0.16	Max	6.6E+04	--	2E-06	--
24528 PANAMA AVE	TPH as Motor Oil	mg/kg	34	Max	2.9E+05	--	1E-04	--
24528 PANAMA AVE	Xylenes, Total	µg/kg	0.43	Max	4.9E+07	--	9E-09	--
24529 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	4000	Max	7.2E+06	--	6E-04	--
24529 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	920	Max	7.4E+06	--	1E-04	--
24529 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	16	Max	3.5E+05	1.4E+03	5E-05	1E-08
24529 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	25	Max	2.0E+04	--	1E-03	--
24529 NEPTUNE AVE	Benzene	µg/kg	11000	Max	5.8E+06	1.9E+04	2E-03	6E-07
24529 NEPTUNE AVE	Ethylbenzene	µg/kg	12000	Max	2.9E+08	4.2E+05	4E-05	3E-08
24529 NEPTUNE AVE	Naphthalene	mg/kg	11	Max	1.3E+04	3.5E+02	8E-04	3E-08
24529 NEPTUNE AVE	Pyrene	mg/kg	1	Max	1.5E+05	--	7E-06	--
24529 NEPTUNE AVE	Toluene	µg/kg	610	Max	4.2E+08	--	2E-06	--
24529 NEPTUNE AVE	TPH as Diesel	mg/kg	11000	Max	1.1E+05	--	1E-01	--
24529 NEPTUNE AVE	TPH as Gasoline	mg/kg	3000	Max	6.6E+04	--	5E-02	--
24529 NEPTUNE AVE	TPH as Motor Oil	mg/kg	10000	Max	2.9E+05	--	3E-02	--
24529 NEPTUNE AVE	Xylenes, Total	µg/kg	5700	Max	4.9E+07	--	1E-04	--
24529 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.53	Max	7.2E+06	--	7E-08	--
24529 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0033	Max	3.5E+05	1.4E+03	9E-09	2E-12
24529 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0054	Max	2.0E+04	--	3E-07	--
24529 PANAMA AVE	Benzene	µg/kg	2.7	Max	5.8E+06	1.9E+04	5E-07	1E-10
24529 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.6	Max	2.1E+04	1.1E+02	3E-05	5E-09
24529 PANAMA AVE	Ethylbenzene	µg/kg	0.4	Max	2.9E+08	4.2E+05	1E-09	1E-12
24529 PANAMA AVE	Naphthalene	mg/kg	0.034	Max	1.3E+04	3.5E+02	3E-06	1E-10
24529 PANAMA AVE	Pyrene	mg/kg	0.0024	Max	1.5E+05	--	2E-08	--
24529 PANAMA AVE	Toluene	µg/kg	0.49	Max	4.2E+08	--	1E-09	--
24529 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	5600	Max	7.2E+06	--	8E-04	--
24529 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	680	Max	7.4E+06	--	9E-05	--
24529 RAVENNA AVE	1-Methylnaphthalene	mg/kg	21	Max	3.5E+05	1.4E+03	6E-05	2E-08
24529 RAVENNA AVE	2-Methylnaphthalene	mg/kg	35	Max	2.0E+04	--	2E-03	--
24529 RAVENNA AVE	Benzene	µg/kg	290	Max	5.8E+06	1.9E+04	5E-05	2E-08
24529 RAVENNA AVE	Ethylbenzene	µg/kg	4300	Max	2.9E+08	4.2E+05	2E-05	1E-08
24529 RAVENNA AVE	Naphthalene	mg/kg	15	Max	1.3E+04	3.5E+02	1E-03	4E-08
24529 RAVENNA AVE	Pyrene	mg/kg	0.28	Max	1.5E+05	--	2E-06	--
24529 RAVENNA AVE	Toluene	µg/kg	0.69	Max	4.2E+08	--	2E-09	--
24529 RAVENNA AVE	TPH as Diesel	mg/kg	11000	Max	1.1E+05	--	1E-01	--
24529 RAVENNA AVE	TPH as Gasoline	mg/kg	1100	Max	6.6E+04	--	2E-02	--
24529 RAVENNA AVE	TPH as Motor Oil	mg/kg	11000	Max	2.9E+05	--	4E-02	--
24529 RAVENNA AVE	Xylenes, Total	µg/kg	580	Max	4.9E+07	--	1E-05	--
24532 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	17000	Max	7.2E+06	--	2E-03	--
24532 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	3400	Max	7.4E+06	--	5E-04	--
24532 MARBELLA AVE	1-Methylnaphthalene	mg/kg	34	Max	3.5E+05	1.4E+03	1E-04	3E-08
24532 MARBELLA AVE	2-Methylnaphthalene	mg/kg	56	Max	2.0E+04	--	3E-03	--
24532 MARBELLA AVE	Benzene	µg/kg	2700	Max	5.8E+06	1.9E+04	5E-04	1E-07
24532 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.11	Max	2.1E+04	1.1E+02	5E-06	1E-09
24532 MARBELLA AVE	Cobalt	mg/kg	16.1	Max	2.1E+03	2.7E+06	8E-03	6E-12
24532 MARBELLA AVE	Ethylbenzene	µg/kg	26000	Max	2.9E+08	4.2E+05	9E-05	6E-08
24532 MARBELLA AVE	Naphthalene	mg/kg	34	Max	1.3E+04	3.5E+02	3E-03	1E-07
24532 MARBELLA AVE	Pyrene	mg/kg	0.62	Max	1.5E+05	--	4E-06	--
24532 MARBELLA AVE	Toluene	µg/kg	21	Max	4.2E+08	--	5E-08	--
24532 MARBELLA AVE	TPH as Diesel	mg/kg	32000	Max	1.1E+05	--	3E-01	--
24532 MARBELLA AVE	TPH as Gasoline	mg/kg	5000	Max	6.6E+04	--	8E-02	--
24532 MARBELLA AVE	TPH as Motor Oil	mg/kg	30000	Max	2.9E+05	--	1E-01	--
24532 MARBELLA AVE	Xylenes, Total	µg/kg	10000	Max	4.9E+07	--	2E-04	--
24532 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	180	Max	2.1E+05	1.9E+03	9E-04	1E-07
24532 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.21	Max	3.5E+05	1.4E+03	6E-07	2E-10
24532 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.49	Max	2.0E+04	--	2E-05	--
24532 PANAMA AVE	Benzene	µg/kg	0.18	Max	5.8E+06	1.9E+04	3E-08	9E-12

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24532 PANAMA AVE	Naphthalene	mg/kg	0.15	Max	1.3E+04	3.5E+02	1E-05	4E-10
24532 PANAMA AVE	Pyrene	mg/kg	2.3	Max	1.5E+05	--	2E-05	--
24532 PANAMA AVE	TPH as Diesel	mg/kg	4400	Max	1.1E+05	--	4E-02	--
24532 PANAMA AVE	TPH as Gasoline	mg/kg	11	Max	6.6E+04	--	2E-04	--
24532 PANAMA AVE	TPH as Motor Oil	mg/kg	7400	Max	2.9E+05	--	3E-02	--
24532 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.33	Max	7.2E+06	--	5E-08	--
24532 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0018	Max	3.5E+05	1.4E+03	5E-09	1E-12
24532 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0035	Max	2.0E+04	--	2E-07	--
24532 RAVENNA AVE	Benzene	µg/kg	4.2	Max	5.8E+06	1.9E+04	7E-07	2E-10
24532 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	2.1E+04	1.1E+02	2E-05	3E-09
24532 RAVENNA AVE	Ethylbenzene	µg/kg	0.65	Max	2.9E+08	4.2E+05	2E-09	2E-12
24532 RAVENNA AVE	Naphthalene	mg/kg	0.0073	Max	1.3E+04	3.5E+02	6E-07	2E-11
24532 RAVENNA AVE	Pyrene	mg/kg	0.0022	Max	1.5E+05	--	2E-08	--
24532 RAVENNA AVE	Toluene	µg/kg	0.7	Max	4.2E+08	--	2E-09	--
24532 RAVENNA AVE	TPH as Gasoline	mg/kg	0.069	Max	6.6E+04	--	1E-06	--
24532 RAVENNA AVE	TPH as Motor Oil	mg/kg	7	Max	2.9E+05	--	2E-05	--
24532 RAVENNA AVE	Xylenes, Total	µg/kg	0.41	Max	4.9E+07	--	8E-09	--
24533 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0011	Max	2.0E+04	--	6E-08	--
24533 MARBELLA AVE	Benzene	µg/kg	3.7	Max	5.8E+06	1.9E+04	6E-07	2E-10
24533 MARBELLA AVE	Bromomethane	µg/kg	1.1	Max	7.7E+05	--	1E-06	--
24533 MARBELLA AVE	Cobalt	mg/kg	16.4	Max	2.1E+03	2.7E+06	8E-03	6E-12
24533 MARBELLA AVE	Ethylbenzene	µg/kg	0.29	Max	2.9E+08	4.2E+05	1E-09	7E-13
24533 MARBELLA AVE	Naphthalene	mg/kg	0.0025	Max	1.3E+04	3.5E+02	2E-07	7E-12
24533 MARBELLA AVE	Pyrene	mg/kg	0.034	Max	1.5E+05	--	2E-07	--
24533 MARBELLA AVE	Tetrachloroethene	µg/kg	4.1	Max	7.5E+06	4.9E+04	5E-07	9E-11
24533 MARBELLA AVE	Toluene	µg/kg	4	Max	4.2E+08	--	1E-08	--
24533 MARBELLA AVE	TPH as Gasoline	mg/kg	0.1	Max	6.6E+04	--	2E-06	--
24533 MARBELLA AVE	Xylenes, Total	µg/kg	1.6	Max	4.9E+07	--	3E-08	--
24533 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0039	Max	3.5E+05	1.4E+03	1E-08	3E-12
24533 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0027	Max	2.0E+04	--	1E-07	--
24533 PANAMA AVE	Benzene	µg/kg	2.8	Max	5.8E+06	1.9E+04	5E-07	2E-10
24533 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.1E+04	1.1E+02	2E-05	4E-09
24533 PANAMA AVE	Ethylbenzene	µg/kg	0.34	Max	2.9E+08	4.2E+05	1E-09	8E-13
24533 PANAMA AVE	Naphthalene	mg/kg	0.0045	Max	1.3E+04	3.5E+02	3E-07	1E-11
24533 PANAMA AVE	Pyrene	mg/kg	0.019	Max	1.5E+05	--	1E-07	--
24533 PANAMA AVE	Toluene	µg/kg	0.74	Max	4.2E+08	--	2E-09	--
24533 PANAMA AVE	TPH as Diesel	mg/kg	97	Max	1.1E+05	--	9E-04	--
24533 PANAMA AVE	TPH as Gasoline	mg/kg	0.21	Max	6.6E+04	--	3E-06	--
24533 PANAMA AVE	TPH as Motor Oil	mg/kg	130	Max	2.9E+05	--	5E-04	--
24533 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.72	Max	7.2E+06	--	1E-07	--
24533 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0044	Max	3.5E+05	1.4E+03	1E-08	3E-12
24533 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00335	95UCL	2.0E+04	--	2E-07	--
24533 RAVENNA AVE	Benzene	µg/kg	1.9	Max	5.8E+06	1.9E+04	3E-07	1E-10
24533 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.45	Max	1.1E+05	3.0E+03	4E-06	2E-10
24533 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.39	Max	2.1E+04	1.1E+02	2E-05	4E-09
24533 RAVENNA AVE	Ethylbenzene	µg/kg	0.86	Max	2.9E+08	4.2E+05	3E-09	2E-12
24533 RAVENNA AVE	Naphthalene	mg/kg	0.00954	95UCL	1.3E+04	3.5E+02	7E-07	3E-11
24533 RAVENNA AVE	Pyrene	mg/kg	0.0577	95UCL	1.5E+05	--	4E-07	--
24533 RAVENNA AVE	Toluene	µg/kg	0.6	Max	4.2E+08	--	1E-09	--
24533 RAVENNA AVE	TPH as Diesel	mg/kg	10	Max	1.1E+05	--	9E-05	--
24533 RAVENNA AVE	TPH as Motor Oil	mg/kg	12	Max	2.9E+05	--	4E-05	--
24602 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	36	Max	7.2E+06	--	5E-06	--
24602 MARBELLA AVE	1-Methylnaphthalene	mg/kg	48.69	95UCL	3.5E+05	1.4E+03	1E-04	4E-08
24602 MARBELLA AVE	2-Methylnaphthalene	mg/kg	169.4	95UCL	2.0E+04	--	8E-03	--
24602 MARBELLA AVE	Benzene	µg/kg	13	95UCL	5.8E+06	1.9E+04	2E-06	7E-10
24602 MARBELLA AVE	Bromomethane	µg/kg	90	Max	7.7E+05	--	1E-04	--
24602 MARBELLA AVE	Cobalt	mg/kg	10.48	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24602 MARBELLA AVE	Ethylbenzene	µg/kg	1661	95UCL	2.9E+08	4.2E+05	6E-06	4E-09
24602 MARBELLA AVE	Naphthalene	mg/kg	30.92	95UCL	1.3E+04	3.5E+02	2E-03	9E-08
24602 MARBELLA AVE	Pyrene	mg/kg	2.63	95UCL	1.5E+05	--	2E-05	--
24602 MARBELLA AVE	Toluene	µg/kg	17	Max	4.2E+08	--	4E-08	--
24602 MARBELLA AVE	TPH as Diesel	mg/kg	7778	95UCL	1.1E+05	--	7E-02	--

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Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24602 MARBELLA AVE	TPH as Gasoline	mg/kg	465.8	95UCL	6.6E+04	--	7E-03	--
24602 MARBELLA AVE	TPH as Motor Oil	mg/kg	7133	95UCL	2.9E+05	--	3E-02	--
24602 MARBELLA AVE	Vanadium	mg/kg	51.71	95UCL	3.4E+04	--	2E-03	--
24602 MARBELLA AVE	Xylenes, Total	µg/kg	190	Max	4.9E+07	--	4E-06	--
24602 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.002	Max	3.5E+05	1.4E+03	6E-09	2E-12
24602 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0028	Max	2.0E+04	--	1E-07	--
24602 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.28	Max	2.1E+04	1.1E+02	1E-05	3E-09
24602 NEPTUNE AVE	Naphthalene	mg/kg	0.0016	Max	1.3E+04	3.5E+02	1E-07	5E-12
24602 NEPTUNE AVE	Pyrene	mg/kg	0.0017	Max	1.5E+05	--	1E-08	--
24602 NEPTUNE AVE	TPH as Diesel	mg/kg	5.6	Max	1.1E+05	--	5E-05	--
24602 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.054	Max	6.6E+04	--	8E-07	--
24602 NEPTUNE AVE	TPH as Motor Oil	mg/kg	11	Max	2.9E+05	--	4E-05	--
24602 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2.069	95UCL	7.2E+06	--	3E-07	--
24602 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.741	95UCL	7.4E+06	--	1E-07	--
24602 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.657	95UCL	3.5E+05	1.4E+03	2E-06	5E-10
24602 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.164	95UCL	2.0E+04	--	6E-05	--
24602 PANAMA AVE	Benzene	µg/kg	0.226	95UCL	5.8E+06	1.9E+04	4E-08	1E-11
24602 PANAMA AVE	Bromomethane	µg/kg	2.2	Max	7.7E+05	--	3E-06	--
24602 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.1E+04	1.1E+02	1E-05	2E-09
24602 PANAMA AVE	Ethylbenzene	µg/kg	0.222	95UCL	2.9E+08	4.2E+05	8E-10	5E-13
24602 PANAMA AVE	Naphthalene	mg/kg	0.249	95UCL	1.3E+04	3.5E+02	2E-05	7E-10
24602 PANAMA AVE	Pyrene	mg/kg	3.061	95UCL	1.5E+05	--	2E-05	--
24602 PANAMA AVE	Toluene	µg/kg	0.294	95UCL	4.2E+08	--	7E-10	--
24602 PANAMA AVE	TPH as Diesel	mg/kg	3007	95UCL	1.1E+05	--	3E-02	--
24602 PANAMA AVE	TPH as Gasoline	mg/kg	0.267	95UCL	6.6E+04	--	4E-06	--
24602 PANAMA AVE	TPH as Motor Oil	mg/kg	4750	95UCL	2.9E+05	--	2E-02	--
24602 PANAMA AVE	Xylenes, Total	µg/kg	0.624	95UCL	4.9E+07	--	1E-08	--
24602 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.3	Max	7.2E+06	--	4E-08	--
24602 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0008	Max	2.0E+04	--	4E-08	--
24602 RAVENNA AVE	Bromomethane	µg/kg	4.6	Max	7.7E+05	--	6E-06	--
24602 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.26	Max	2.1E+04	1.1E+02	1E-05	2E-09
24602 RAVENNA AVE	Naphthalene	mg/kg	0.0029	Max	1.3E+04	3.5E+02	2E-07	8E-12
24602 RAVENNA AVE	Pyrene	mg/kg	0.023	Max	1.5E+05	--	2E-07	--
24602 RAVENNA AVE	Toluene	µg/kg	3.7	Max	4.2E+08	--	9E-09	--
24602 RAVENNA AVE	TPH as Gasoline	mg/kg	0.056	Max	6.6E+04	--	9E-07	--
24603 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.31	Max	7.2E+06	--	4E-08	--
24603 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.009	Max	3.5E+05	1.4E+03	3E-08	7E-12
24603 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.021	Max	2.0E+04	--	1E-06	--
24603 MARBELLA AVE	Benzene	µg/kg	0.16	Max	5.8E+06	1.9E+04	3E-08	8E-12
24603 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.28	Max	2.1E+04	1.1E+02	1E-05	3E-09
24603 MARBELLA AVE	Cobalt	mg/kg	12.5	Max	2.1E+03	2.7E+06	6E-03	5E-12
24603 MARBELLA AVE	Naphthalene	mg/kg	0.044	Max	1.3E+04	3.5E+02	3E-06	1E-10
24603 MARBELLA AVE	Pyrene	mg/kg	0.023	Max	1.5E+05	--	2E-07	--
24603 MARBELLA AVE	Tetrachloroethene	µg/kg	0.18	Max	7.5E+06	4.9E+04	2E-08	4E-12
24603 MARBELLA AVE	Toluene	µg/kg	0.17	Max	4.2E+08	--	4E-10	--
24603 MARBELLA AVE	TPH as Diesel	mg/kg	44	Max	1.1E+05	--	4E-04	--
24603 MARBELLA AVE	TPH as Gasoline	mg/kg	0.086	Max	6.6E+04	--	1E-06	--
24603 MARBELLA AVE	TPH as Motor Oil	mg/kg	120	Max	2.9E+05	--	4E-04	--
24603 MARBELLA AVE	Vanadium	mg/kg	59.2	Max	3.4E+04	--	2E-03	--
24603 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	3200	Max	7.2E+06	--	4E-04	--
24603 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1300	Max	7.4E+06	--	2E-04	--
24603 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.452	95UCL	3.5E+05	1.4E+03	1E-06	3E-10
24603 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.771	95UCL	2.0E+04	--	4E-05	--
24603 NEPTUNE AVE	Benzene	µg/kg	37.38	95UCL	5.8E+06	1.9E+04	6E-06	2E-09
24603 NEPTUNE AVE	Bromodichloromethane	µg/kg	170	Max	3.8E+07	4.2E+04	5E-06	4E-09
24603 NEPTUNE AVE	Ethylbenzene	µg/kg	730	Max	2.9E+08	4.2E+05	3E-06	2E-09
24603 NEPTUNE AVE	Naphthalene	mg/kg	0.386	95UCL	1.3E+04	3.5E+02	3E-05	1E-09
24603 NEPTUNE AVE	Pyrene	mg/kg	0.027	95UCL	1.5E+05	--	2E-07	--
24603 NEPTUNE AVE	Toluene	µg/kg	153.3	95UCL	4.2E+08	--	4E-07	--
24603 NEPTUNE AVE	TPH as Diesel	mg/kg	520	Max	1.1E+05	--	5E-03	--
24603 NEPTUNE AVE	TPH as Gasoline	mg/kg	250	Max	6.6E+04	--	4E-03	--
24603 NEPTUNE AVE	TPH as Motor Oil	mg/kg	540	Max	2.9E+05	--	2E-03	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24603 NEPTUNE AVE	Xylenes, Total	µg/kg	5200	Max	4.9E+07	--	1E-04	--
24603 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1	Max	7.2E+06	--	1E-07	--
24603 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.01	Max	3.5E+05	1.4E+03	3E-08	7E-12
24603 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.011	Max	2.0E+04	--	6E-07	--
24603 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.39	Max	2.1E+04	1.1E+02	2E-05	4E-09
24603 PANAMA AVE	Naphthalene	mg/kg	0.0065	Max	1.3E+04	3.5E+02	5E-07	2E-11
24603 PANAMA AVE	Pyrene	mg/kg	0.04	Max	1.5E+05	--	3E-07	--
24603 PANAMA AVE	TPH as Diesel	mg/kg	66	Max	1.1E+05	--	6E-04	--
24603 PANAMA AVE	TPH as Gasoline	mg/kg	0.11	Max	6.6E+04	--	2E-06	--
24603 PANAMA AVE	TPH as Motor Oil	mg/kg	89	Max	2.9E+05	--	3E-04	--
24603 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.68	Max	7.2E+06	--	9E-08	--
24603 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.002	Max	3.5E+05	1.4E+03	6E-09	2E-12
24603 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0028	Max	2.0E+04	--	1E-07	--
24603 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.066	Max	2.1E+04	1.1E+02	3E-06	6E-10
24603 RAVENNA AVE	Naphthalene	mg/kg	0.0084	95UCL	1.3E+04	3.5E+02	6E-07	2E-11
24603 RAVENNA AVE	Pyrene	mg/kg	0.0095	Max	1.5E+05	--	6E-08	--
24603 RAVENNA AVE	Thallium	mg/kg	1.973	95UCL	6.8E+01	--	3E-02	--
24603 RAVENNA AVE	Toluene	µg/kg	0.53	Max	4.2E+08	--	1E-09	--
24603 RAVENNA AVE	Xylenes, Total	µg/kg	0.34	Max	4.9E+07	--	7E-09	--
24606 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	4981	95UCL	7.2E+06	--	7E-04	--
24606 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1596	95UCL	7.4E+06	--	2E-04	--
24606 MARBELLA AVE	1-Methylnaphthalene	mg/kg	14.56	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24606 MARBELLA AVE	2-Methylnaphthalene	mg/kg	24.72	95UCL	2.0E+04	--	1E-03	--
24606 MARBELLA AVE	Benzene	µg/kg	1449	95UCL	5.8E+06	1.9E+04	3E-04	8E-08
24606 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.54	Max	1.1E+05	3.0E+03	5E-06	2E-10
24606 MARBELLA AVE	Cobalt	mg/kg	9.044	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
24606 MARBELLA AVE	Ethylbenzene	µg/kg	4424	95UCL	2.9E+08	4.2E+05	2E-05	1E-08
24606 MARBELLA AVE	Naphthalene	mg/kg	21.03	95UCL	1.3E+04	3.5E+02	2E-03	6E-08
24606 MARBELLA AVE	Pyrene	mg/kg	2.131	95UCL	1.5E+05	--	1E-05	--
24606 MARBELLA AVE	Toluene	µg/kg	310	Max	4.2E+08	--	7E-07	--
24606 MARBELLA AVE	TPH as Diesel	mg/kg	7226	95UCL	1.1E+05	--	7E-02	--
24606 MARBELLA AVE	TPH as Gasoline	mg/kg	776.7	95UCL	6.6E+04	--	1E-02	--
24606 MARBELLA AVE	TPH as Motor Oil	mg/kg	7486	95UCL	2.9E+05	--	3E-02	--
24606 MARBELLA AVE	Xylenes, Total	µg/kg	3317	95UCL	4.9E+07	--	7E-05	--
24607 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.1	Max	7.2E+06	--	1E-08	--
24607 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.38	Max	7.4E+06	--	5E-08	--
24607 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0058	Max	3.5E+05	1.4E+03	2E-08	4E-12
24607 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.011	Max	2.0E+04	--	6E-07	--
24607 MARBELLA AVE	Benzene	µg/kg	0.15	Max	5.8E+06	1.9E+04	3E-08	8E-12
24607 MARBELLA AVE	Cobalt	mg/kg	15.8	Max	2.1E+03	2.7E+06	8E-03	6E-12
24607 MARBELLA AVE	Naphthalene	mg/kg	0.0084	Max	1.3E+04	3.5E+02	6E-07	2E-11
24607 MARBELLA AVE	Pyrene	mg/kg	0.0071	Max	1.5E+05	--	5E-08	--
24607 MARBELLA AVE	Toluene	µg/kg	0.31	Max	4.2E+08	--	7E-10	--
24607 MARBELLA AVE	TPH as Motor Oil	mg/kg	8.9	Max	2.9E+05	--	3E-05	--
24608 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	290	Max	7.2E+06	--	4E-05	--
24608 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	48	Max	7.4E+06	--	7E-06	--
24608 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	34	Max	3.5E+05	1.4E+03	1E-04	3E-08
24608 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	59	Max	2.0E+04	--	3E-03	--
24608 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.1E+04	1.1E+02	1E-05	2E-09
24608 NEPTUNE AVE	Ethylbenzene	µg/kg	2100	Max	2.9E+08	4.2E+05	7E-06	5E-09
24608 NEPTUNE AVE	Naphthalene	mg/kg	25	Max	1.3E+04	3.5E+02	2E-03	7E-08
24608 NEPTUNE AVE	Pyrene	mg/kg	0.0008	Max	1.5E+05	--	5E-09	--
24608 NEPTUNE AVE	Toluene	µg/kg	0.17	Max	4.2E+08	--	4E-10	--
24608 NEPTUNE AVE	TPH as Diesel	mg/kg	11000	Max	1.1E+05	--	1E-01	--
24608 NEPTUNE AVE	TPH as Gasoline	mg/kg	1100	Max	6.6E+04	--	2E-02	--
24608 NEPTUNE AVE	TPH as Motor Oil	mg/kg	8500	Max	2.9E+05	--	3E-02	--
24608 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	760	Max	7.2E+06	--	1E-04	--
24608 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	210	Max	7.4E+06	--	3E-05	--
24608 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.4	Max	3.5E+05	1.4E+03	4E-06	1E-09
24608 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.9	Max	2.0E+04	--	1E-04	--
24608 PANAMA AVE	Benzene	µg/kg	12	Max	5.8E+06	1.9E+04	2E-06	6E-10
24608 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.28	Max	2.1E+04	1.1E+02	1E-05	3E-09

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24608 PANAMA AVE	Ethylbenzene	µg/kg	140	Max	2.9E+08	4.2E+05	5E-07	3E-10
24608 PANAMA AVE	Naphthalene	mg/kg	1	Max	1.3E+04	3.5E+02	8E-05	3E-09
24608 PANAMA AVE	Pyrene	mg/kg	2.5	Max	1.5E+05	--	2E-05	--
24608 PANAMA AVE	Thallium	mg/kg	2.5	Max	6.8E+01	--	4E-02	--
24608 PANAMA AVE	Toluene	µg/kg	19	Max	4.2E+08	--	5E-08	--
24608 PANAMA AVE	TPH as Diesel	mg/kg	920	Max	1.1E+05	--	8E-03	--
24608 PANAMA AVE	TPH as Gasoline	mg/kg	2	Max	6.6E+04	--	3E-05	--
24608 PANAMA AVE	TPH as Motor Oil	mg/kg	1700	Max	2.9E+05	--	6E-03	--
24608 PANAMA AVE	Xylenes, Total	µg/kg	240	Max	4.9E+07	--	5E-06	--
24608 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	78.5	95UCL	7.2E+06	--	1E-05	--
24608 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	65	Max	7.4E+06	--	9E-06	--
24608 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.983	95UCL	3.5E+05	1.4E+03	3E-06	7E-10
24608 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.59	95UCL	2.0E+04	--	8E-05	--
24608 RAVENNA AVE	Benzene	µg/kg	2.1	Max	5.8E+06	1.9E+04	4E-07	1E-10
24608 RAVENNA AVE	Bromomethane	µg/kg	1.7	Max	7.7E+05	--	2E-06	--
24608 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.32	Max	2.1E+04	1.1E+02	2E-05	3E-09
24608 RAVENNA AVE	Ethylbenzene	µg/kg	26.71	95UCL	2.9E+08	4.2E+05	9E-08	6E-11
24608 RAVENNA AVE	Naphthalene	mg/kg	0.683	95UCL	1.3E+04	3.5E+02	5E-05	2E-09
24608 RAVENNA AVE	Pyrene	mg/kg	2.516	95UCL	1.5E+05	--	2E-05	--
24608 RAVENNA AVE	Toluene	µg/kg	0.55	Max	4.2E+08	--	1E-09	--
24608 RAVENNA AVE	TPH as Diesel	mg/kg	12000	Max	1.1E+05	--	1E-01	--
24608 RAVENNA AVE	TPH as Gasoline	mg/kg	1.3	Max	6.6E+04	--	2E-05	--
24608 RAVENNA AVE	TPH as Motor Oil	mg/kg	21000	Max	2.9E+05	--	7E-02	--
24608 RAVENNA AVE	Xylenes, Total	µg/kg	56.1	95UCL	4.9E+07	--	1E-06	--
24609 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	50000	Max	7.2E+06	--	7E-03	--
24609 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	17000	Max	7.4E+06	--	2E-03	--
24609 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	51	Max	3.5E+05	1.4E+03	2E-04	4E-08
24609 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	78	Max	2.0E+04	--	4E-03	--
24609 NEPTUNE AVE	Benzene	µg/kg	2800	Max	5.8E+06	1.9E+04	5E-04	2E-07
24609 NEPTUNE AVE	Bromomethane	µg/kg	310	Max	7.7E+05	--	4E-04	--
24609 NEPTUNE AVE	Ethylbenzene	µg/kg	15000	Max	2.9E+08	4.2E+05	5E-05	4E-08
24609 NEPTUNE AVE	Naphthalene	mg/kg	24	Max	1.3E+04	3.5E+02	2E-03	7E-08
24609 NEPTUNE AVE	Pyrene	mg/kg	12	Max	1.5E+05	--	8E-05	--
24609 NEPTUNE AVE	Toluene	µg/kg	3600	Max	4.2E+08	--	9E-06	--
24609 NEPTUNE AVE	TPH as Diesel	mg/kg	24000	Max	1.1E+05	--	2E-01	--
24609 NEPTUNE AVE	TPH as Gasoline	mg/kg	2800	Max	6.6E+04	--	4E-02	--
24609 NEPTUNE AVE	TPH as Motor Oil	mg/kg	27000	Max	2.9E+05	--	9E-02	--
24609 NEPTUNE AVE	Xylenes, Total	µg/kg	83000	Max	4.9E+07	--	2E-03	--
24609 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	3600	95UCL	7.2E+06	--	5E-04	--
24609 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	10.18	95UCL	7.4E+06	--	1E-06	--
24609 PANAMA AVE	1-Methylnaphthalene	mg/kg	9.415	95UCL	3.5E+05	1.4E+03	3E-05	7E-09
24609 PANAMA AVE	2-Methylnaphthalene	mg/kg	15.45	95UCL	2.0E+04	--	8E-04	--
24609 PANAMA AVE	Benzene	µg/kg	278.7	95UCL	5.8E+06	1.9E+04	5E-05	1E-08
24609 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.1E+04	1.1E+02	2E-05	3E-09
24609 PANAMA AVE	Ethylbenzene	µg/kg	646	95UCL	2.9E+08	4.2E+05	2E-06	2E-09
24609 PANAMA AVE	Naphthalene	mg/kg	8.7	95UCL	1.3E+04	3.5E+02	7E-04	3E-08
24609 PANAMA AVE	Pyrene	mg/kg	0.75	95UCL	1.5E+05	--	5E-06	--
24609 PANAMA AVE	Toluene	µg/kg	0.899	95UCL	4.2E+08	--	2E-09	--
24609 PANAMA AVE	TPH as Diesel	mg/kg	4345	95UCL	1.1E+05	--	4E-02	--
24609 PANAMA AVE	TPH as Gasoline	mg/kg	400	95UCL	6.6E+04	--	6E-03	--
24609 PANAMA AVE	TPH as Motor Oil	mg/kg	4159	95UCL	2.9E+05	--	1E-02	--
24609 PANAMA AVE	Xylenes, Total	µg/kg	250	95UCL	4.9E+07	--	5E-06	--
24609 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0065	Max	3.5E+05	1.4E+03	2E-08	5E-12
24609 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00386	95UCL	2.0E+04	--	2E-07	--
24609 RAVENNA AVE	Benzene	µg/kg	0.1	Max	5.8E+06	1.9E+04	2E-08	5E-12
24609 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.1E+04	1.1E+02	1E-05	2E-09
24609 RAVENNA AVE	Naphthalene	mg/kg	0.00464	95UCL	1.3E+04	3.5E+02	4E-07	1E-11
24609 RAVENNA AVE	Pyrene	mg/kg	0.0336	95UCL	1.5E+05	--	2E-07	--
24612 MARBELLA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.12	Max	5.4E+07	4.1E+04	2E-09	3E-12
24612 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	8788	95UCL	7.2E+06	--	1E-03	--
24612 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	2900	Max	7.4E+06	--	4E-04	--
24612 MARBELLA AVE	1-Methylnaphthalene	mg/kg	15.72	95UCL	3.5E+05	1.4E+03	5E-05	1E-08

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24612 MARBELLA AVE	2-Methylnaphthalene	mg/kg	24.3	95UCL	2.0E+04	--	1E-03	--
24612 MARBELLA AVE	Benzene	µg/kg	1559	95UCL	5.8E+06	1.9E+04	3E-04	8E-08
24612 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.89	Max	1.1E+05	3.0E+03	8E-06	3E-10
24612 MARBELLA AVE	Bromomethane	µg/kg	510	Max	7.7E+05	--	7E-04	--
24612 MARBELLA AVE	Cobalt	mg/kg	9.538	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24612 MARBELLA AVE	Ethylbenzene	µg/kg	10400	95UCL	2.9E+08	4.2E+05	4E-05	3E-08
24612 MARBELLA AVE	Naphthalene	mg/kg	12.5	95UCL	1.3E+04	3.5E+02	1E-03	4E-08
24612 MARBELLA AVE	Pyrene	mg/kg	8.8	Max	1.5E+05	--	6E-05	--
24612 MARBELLA AVE	Toluene	µg/kg	24	Max	4.2E+08	--	6E-08	--
24612 MARBELLA AVE	TPH as Diesel	mg/kg	10000	95UCL	1.1E+05	--	9E-02	--
24612 MARBELLA AVE	TPH as Gasoline	mg/kg	3898	95UCL	6.6E+04	--	6E-02	--
24612 MARBELLA AVE	TPH as Motor Oil	mg/kg	9210	95UCL	2.9E+05	--	3E-02	--
24612 MARBELLA AVE	Xylenes, Total	µg/kg	3800	Max	4.9E+07	--	8E-05	--
24612 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	6766	95UCL	7.2E+06	--	9E-04	--
24612 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	935.8	95UCL	7.4E+06	--	1E-04	--
24612 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	21.73	95UCL	3.5E+05	1.4E+03	6E-05	2E-08
24612 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	31.56	95UCL	2.0E+04	--	2E-03	--
24612 NEPTUNE AVE	Benzene	µg/kg	447.7	95UCL	5.8E+06	1.9E+04	8E-05	2E-08
24612 NEPTUNE AVE	Benzo (a) Anthracene	mg/kg	0.813	95UCL	--	1.4E+02	--	6E-09
24612 NEPTUNE AVE	Benzo (a) Pyrene	mg/kg	0.411	95UCL	--	1.4E+01	--	3E-08
24612 NEPTUNE AVE	Benzo (b) Fluoranthene	mg/kg	0.48	Max	--	1.4E+02	--	4E-09
24612 NEPTUNE AVE	Benzo (k) Fluoranthene	mg/kg	0.0018	Max	--	1.4E+02	--	1E-11
24612 NEPTUNE AVE	Chrysene	mg/kg	2.204	95UCL	--	1.4E+03	--	2E-09
24612 NEPTUNE AVE	Dibenz (a,h) Anthracene	mg/kg	0.0014	Max	--	9.7E+00	--	1E-10
24612 NEPTUNE AVE	Ethylbenzene	µg/kg	5056	95UCL	2.9E+08	4.2E+05	2E-05	1E-08
24612 NEPTUNE AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.02	Max	--	1.4E+02	--	2E-10
24612 NEPTUNE AVE	Naphthalene	mg/kg	12.86	95UCL	1.3E+04	3.5E+02	1E-03	4E-08
24612 NEPTUNE AVE	Pyrene	mg/kg	6.354	95UCL	1.5E+05	--	4E-05	--
24612 NEPTUNE AVE	Toluene	µg/kg	90.66	95UCL	4.2E+08	--	2E-07	--
24612 NEPTUNE AVE	TPH as Diesel	mg/kg	9578	95UCL	1.1E+05	--	9E-02	--
24612 NEPTUNE AVE	TPH as Gasoline	mg/kg	1020	95UCL	6.6E+04	--	2E-02	--
24612 NEPTUNE AVE	TPH as Motor Oil	mg/kg	11258	95UCL	2.9E+05	--	4E-02	--
24612 NEPTUNE AVE	Xylenes, Total	µg/kg	3021	95UCL	4.9E+07	--	6E-05	--
24612 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	37.56	95UCL	7.2E+06	--	5E-06	--
24612 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	5.633	95UCL	7.4E+06	--	8E-07	--
24612 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.807	95UCL	3.5E+05	1.4E+03	5E-06	1E-09
24612 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.813	95UCL	2.0E+04	--	9E-05	--
24612 PANAMA AVE	Benzene	µg/kg	3.445	95UCL	5.8E+06	1.9E+04	6E-07	2E-10
24612 PANAMA AVE	Ethylbenzene	µg/kg	21.44	95UCL	2.9E+08	4.2E+05	8E-08	5E-11
24612 PANAMA AVE	Naphthalene	mg/kg	0.864	95UCL	1.3E+04	3.5E+02	7E-05	3E-09
24612 PANAMA AVE	Pyrene	mg/kg	10.26	95UCL	1.5E+05	--	7E-05	--
24612 PANAMA AVE	Toluene	µg/kg	1.911	95UCL	4.2E+08	--	5E-09	--
24612 PANAMA AVE	TPH as Diesel	mg/kg	2416	95UCL	1.1E+05	--	2E-02	--
24612 PANAMA AVE	TPH as Gasoline	mg/kg	0.817	95UCL	6.6E+04	--	1E-05	--
24612 PANAMA AVE	TPH as Motor Oil	mg/kg	3867	95UCL	2.9E+05	--	1E-02	--
24612 PANAMA AVE	Xylenes, Total	µg/kg	19.38	95UCL	4.9E+07	--	4E-07	--
24612 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	23.68	95UCL	7.2E+06	--	3E-06	--
24612 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	9.017	95UCL	7.4E+06	--	1E-06	--
24612 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.145	95UCL	3.5E+05	1.4E+03	4E-07	1E-10
24612 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.206	95UCL	2.0E+04	--	1E-05	--
24612 RAVENNA AVE	Benzene	µg/kg	2.678	95UCL	5.8E+06	1.9E+04	5E-07	1E-10
24612 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.27	Max	2.1E+04	1.1E+02	1E-05	2E-09
24612 RAVENNA AVE	Ethylbenzene	µg/kg	31.22	95UCL	2.9E+08	4.2E+05	1E-07	8E-11
24612 RAVENNA AVE	Naphthalene	mg/kg	0.0413	95UCL	1.3E+04	3.5E+02	3E-06	1E-10
24612 RAVENNA AVE	Pyrene	mg/kg	0.0672	95UCL	1.5E+05	--	5E-07	--
24612 RAVENNA AVE	Toluene	µg/kg	1	Max	4.2E+08	--	2E-09	--
24612 RAVENNA AVE	TPH as Diesel	mg/kg	510.4	95UCL	1.1E+05	--	5E-03	--
24612 RAVENNA AVE	TPH as Gasoline	mg/kg	2.479	95UCL	6.6E+04	--	4E-05	--
24612 RAVENNA AVE	TPH as Motor Oil	mg/kg	986.2	95UCL	2.9E+05	--	3E-03	--
24612 RAVENNA AVE	Xylenes, Total	µg/kg	10.17	95UCL	4.9E+07	--	2E-07	--
24613 MARBELLA AVE	Benzene	µg/kg	0.62	Max	5.8E+06	1.9E+04	1E-07	3E-11
24613 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	2.1E+04	1.1E+02	1E-05	3E-09

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24613 MARBELLA AVE	Cobalt	mg/kg	9.217	95UCL	2.1E+03	2.7E+06	5E-03	3E-12
24613 MARBELLA AVE	Pyrene	mg/kg	0.002	Max	1.5E+05	--	1E-08	--
24613 MARBELLA AVE	Toluene	µg/kg	0.242	95UCL	4.2E+08	--	6E-10	--
24613 MARBELLA AVE	TPH as Motor Oil	mg/kg	22	Max	2.9E+05	--	8E-05	--
24613 MARBELLA AVE	Vanadium	mg/kg	46.11	95UCL	3.4E+04	--	1E-03	--
24613 MARBELLA AVE	Xylenes, Total	µg/kg	0.22	Max	4.9E+07	--	5E-09	--
24613 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	18000	Max	7.2E+06	--	3E-03	--
24613 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	4700	Max	7.4E+06	--	6E-04	--
24613 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	67	Max	3.5E+05	1.4E+03	2E-04	5E-08
24613 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	100	Max	2.0E+04	--	5E-03	--
24613 NEPTUNE AVE	Benzene	µg/kg	4000	Max	5.8E+06	1.9E+04	7E-04	2E-07
24613 NEPTUNE AVE	Bromomethane	µg/kg	190	Max	7.7E+05	--	3E-04	--
24613 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	2.8	Max	2.1E+04	1.1E+02	1E-04	3E-08
24613 NEPTUNE AVE	Ethylbenzene	µg/kg	7000	Max	2.9E+08	4.2E+05	3E-05	2E-08
24613 NEPTUNE AVE	Naphthalene	mg/kg	30	Max	1.3E+04	3.5E+02	2E-03	9E-08
24613 NEPTUNE AVE	Pyrene	mg/kg	41	Max	1.5E+05	--	3E-04	--
24613 NEPTUNE AVE	Toluene	µg/kg	230	Max	4.2E+08	--	6E-07	--
24613 NEPTUNE AVE	TPH as Diesel	mg/kg	19000	Max	1.1E+05	--	2E-01	--
24613 NEPTUNE AVE	TPH as Gasoline	mg/kg	1300	Max	6.6E+04	--	2E-02	--
24613 NEPTUNE AVE	TPH as Motor Oil	mg/kg	19000	Max	2.9E+05	--	7E-02	--
24613 NEPTUNE AVE	Xylenes, Total	µg/kg	13000	Max	4.9E+07	--	3E-04	--
24613 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	7.2	Max	2.1E+05	1.9E+03	4E-05	4E-09
24613 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1324	95UCL	7.2E+06	--	2E-04	--
24613 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	289.2	95UCL	7.4E+06	--	4E-05	--
24613 PANAMA AVE	1-Methylnaphthalene	mg/kg	5.24	95UCL	3.5E+05	1.4E+03	2E-05	4E-09
24613 PANAMA AVE	2-Methylnaphthalene	mg/kg	8.227	95UCL	2.0E+04	--	4E-04	--
24613 PANAMA AVE	Benzene	µg/kg	171.2	95UCL	5.8E+06	1.9E+04	3E-05	9E-09
24613 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.36	Max	1.1E+05	3.0E+03	3E-06	1E-10
24613 PANAMA AVE	Bromomethane	µg/kg	1.9	Max	7.7E+05	--	3E-06	--
24613 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	2.1E+04	1.1E+02	1E-05	2E-09
24613 PANAMA AVE	Ethylbenzene	µg/kg	337.5	95UCL	2.9E+08	4.2E+05	1E-06	8E-10
24613 PANAMA AVE	Naphthalene	mg/kg	2.519	95UCL	1.3E+04	3.5E+02	2E-04	7E-09
24613 PANAMA AVE	Pyrene	mg/kg	1.148	95UCL	1.5E+05	--	8E-06	--
24613 PANAMA AVE	Toluene	µg/kg	12.48	95UCL	4.2E+08	--	3E-08	--
24613 PANAMA AVE	TPH as Diesel	mg/kg	3240	95UCL	1.1E+05	--	3E-02	--
24613 PANAMA AVE	TPH as Gasoline	mg/kg	149.1	95UCL	6.6E+04	--	2E-03	--
24613 PANAMA AVE	TPH as Motor Oil	mg/kg	4602	95UCL	2.9E+05	--	2E-02	--
24613 PANAMA AVE	Xylenes, Total	µg/kg	693.1	95UCL	4.9E+07	--	1E-05	--
24613 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2900	Max	7.2E+06	--	4E-04	--
24613 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	920	Max	7.4E+06	--	1E-04	--
24613 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.24	Max	3.5E+05	1.4E+03	7E-07	2E-10
24613 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.16	Max	2.0E+04	--	8E-06	--
24613 RAVENNA AVE	Benzene	µg/kg	55	Max	5.8E+06	1.9E+04	9E-06	3E-09
24613 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.27	Max	2.1E+04	1.1E+02	1E-05	2E-09
24613 RAVENNA AVE	Ethylbenzene	µg/kg	230	Max	2.9E+08	4.2E+05	8E-07	6E-10
24613 RAVENNA AVE	Naphthalene	mg/kg	1.1	Max	1.3E+04	3.5E+02	8E-05	3E-09
24613 RAVENNA AVE	Pyrene	mg/kg	0.00355	95UCL	1.5E+05	--	2E-08	--
24613 RAVENNA AVE	Toluene	µg/kg	86	Max	4.2E+08	--	2E-07	--
24613 RAVENNA AVE	TPH as Diesel	mg/kg	170	Max	1.1E+05	--	2E-03	--
24613 RAVENNA AVE	TPH as Gasoline	mg/kg	170	Max	6.6E+04	--	3E-03	--
24613 RAVENNA AVE	TPH as Motor Oil	mg/kg	210	Max	2.9E+05	--	7E-04	--
24613 RAVENNA AVE	Xylenes, Total	µg/kg	1000	Max	4.9E+07	--	2E-05	--
24616 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	48305	95UCL	7.2E+06	--	7E-03	--
24616 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	7714	95UCL	7.4E+06	--	1E-03	--
24616 MARBELLA AVE	1-Methylnaphthalene	mg/kg	71.17	95UCL	3.5E+05	1.4E+03	2E-04	5E-08
24616 MARBELLA AVE	2-Methylnaphthalene	mg/kg	109.9	95UCL	2.0E+04	--	6E-03	--
24616 MARBELLA AVE	Benzene	µg/kg	10004	95UCL	5.8E+06	1.9E+04	2E-03	5E-07
24616 MARBELLA AVE	Benzo (a) Anthracene	mg/kg	1.735	95UCL	--	1.4E+02	--	1E-08
24616 MARBELLA AVE	Benzo (a) Pyrene	mg/kg	0.945	95UCL	--	1.4E+01	--	7E-08
24616 MARBELLA AVE	Chrysene	mg/kg	4.023	95UCL	--	1.4E+03	--	3E-09
24616 MARBELLA AVE	Cobalt	mg/kg	9.284	95UCL	2.1E+03	2.7E+06	5E-03	3E-12
24616 MARBELLA AVE	Ethylbenzene	µg/kg	9952	95UCL	2.9E+08	4.2E+05	4E-05	2E-08

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24616 MARBELLA AVE	Naphthalene	mg/kg	43.53	95UCL	1.3E+04	3.5E+02	3E-03	1E-07
24616 MARBELLA AVE	Pyrene	mg/kg	13.65	95UCL	1.5E+05	--	9E-05	--
24616 MARBELLA AVE	Toluene	µg/kg	389.2	95UCL	4.2E+08	--	9E-07	--
24616 MARBELLA AVE	TPH as Diesel	mg/kg	30122	95UCL	1.1E+05	--	3E-01	--
24616 MARBELLA AVE	TPH as Gasoline	mg/kg	2629	95UCL	6.6E+04	--	4E-02	--
24616 MARBELLA AVE	TPH as Motor Oil	mg/kg	30066	95UCL	2.9E+05	--	1E-01	--
24616 MARBELLA AVE	Xylenes, Total	µg/kg	30366	95UCL	4.9E+07	--	6E-04	--
24617 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0019	Max	3.5E+05	1.4E+03	5E-09	1E-12
24617 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0032	Max	2.0E+04	--	2E-07	--
24617 MARBELLA AVE	Benzene	µg/kg	0.22	Max	5.8E+06	1.9E+04	4E-08	1E-11
24617 MARBELLA AVE	Cobalt	mg/kg	10.06	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24617 MARBELLA AVE	Pyrene	mg/kg	0.0014	Max	1.5E+05	--	9E-09	--
24617 MARBELLA AVE	Thallium	mg/kg	1.2	Max	6.8E+01	--	2E-02	--
24617 MARBELLA AVE	TPH as Diesel	mg/kg	6.8	Max	1.1E+05	--	6E-05	--
24617 MARBELLA AVE	TPH as Motor Oil	mg/kg	26	Max	2.9E+05	--	9E-05	--
24617 MARBELLA AVE	Vanadium	mg/kg	48.76	95UCL	3.4E+04	--	1E-03	--
24618 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	6800	Max	7.2E+06	--	9E-04	--
24618 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	290	Max	7.4E+06	--	4E-05	--
24618 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	55	Max	3.5E+05	1.4E+03	2E-04	4E-08
24618 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	81	Max	2.0E+04	--	4E-03	--
24618 NEPTUNE AVE	Benzene	µg/kg	720	Max	5.8E+06	1.9E+04	1E-04	4E-08
24618 NEPTUNE AVE	Ethylbenzene	µg/kg	3000	Max	2.9E+08	4.2E+05	1E-05	7E-09
24618 NEPTUNE AVE	Naphthalene	mg/kg	28	Max	1.3E+04	3.5E+02	2E-03	8E-08
24618 NEPTUNE AVE	Pyrene	mg/kg	4.4	Max	1.5E+05	--	3E-05	--
24618 NEPTUNE AVE	Toluene	µg/kg	5.9	Max	4.2E+08	--	1E-08	--
24618 NEPTUNE AVE	TPH as Diesel	mg/kg	13000	Max	1.1E+05	--	1E-01	--
24618 NEPTUNE AVE	TPH as Gasoline	mg/kg	460	Max	6.6E+04	--	7E-03	--
24618 NEPTUNE AVE	TPH as Motor Oil	mg/kg	11000	Max	2.9E+05	--	4E-02	--
24618 NEPTUNE AVE	Xylenes, Total	µg/kg	4100	Max	4.9E+07	--	8E-05	--
24618 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	560	95UCL	7.2E+06	--	8E-05	--
24618 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	71.89	95UCL	7.4E+06	--	1E-05	--
24618 PANAMA AVE	1-Methylnaphthalene	mg/kg	7.082	95UCL	3.5E+05	1.4E+03	2E-05	5E-09
24618 PANAMA AVE	2-Methylnaphthalene	mg/kg	9.227	95UCL	2.0E+04	--	5E-04	--
24618 PANAMA AVE	Benzene	µg/kg	0.634	95UCL	5.8E+06	1.9E+04	1E-07	3E-11
24618 PANAMA AVE	Bromomethane	µg/kg	170	Max	7.7E+05	--	2E-04	--
24618 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.4	Max	2.1E+04	1.1E+02	2E-05	4E-09
24618 PANAMA AVE	Ethylbenzene	µg/kg	38.12	95UCL	2.9E+08	4.2E+05	1E-07	9E-11
24618 PANAMA AVE	Naphthalene	mg/kg	2.316	95UCL	1.3E+04	3.5E+02	2E-04	7E-09
24618 PANAMA AVE	Pyrene	mg/kg	2.68	95UCL	1.5E+05	--	2E-05	--
24618 PANAMA AVE	Toluene	µg/kg	19.53	95UCL	4.2E+08	--	5E-08	--
24618 PANAMA AVE	TPH as Diesel	mg/kg	4507	95UCL	1.1E+05	--	4E-02	--
24618 PANAMA AVE	TPH as Gasoline	mg/kg	97.8	95UCL	6.6E+04	--	2E-03	--
24618 PANAMA AVE	TPH as Motor Oil	mg/kg	6411	95UCL	2.9E+05	--	2E-02	--
24618 PANAMA AVE	Xylenes, Total	µg/kg	69.39	95UCL	4.9E+07	--	1E-06	--
24618 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1.3	Max	7.2E+06	--	2E-07	--
24618 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.34	Max	7.4E+06	--	5E-08	--
24618 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.011	Max	3.5E+05	1.4E+03	3E-08	8E-12
24618 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.011	Max	2.0E+04	--	6E-07	--
24618 RAVENNA AVE	Benzene	µg/kg	0.12	Max	5.8E+06	1.9E+04	2E-08	6E-12
24618 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.26	Max	2.1E+04	1.1E+02	1E-05	2E-09
24618 RAVENNA AVE	Naphthalene	mg/kg	0.0039	Max	1.3E+04	3.5E+02	3E-07	1E-11
24618 RAVENNA AVE	Pyrene	mg/kg	0.00238	95UCL	1.5E+05	--	2E-08	--
24618 RAVENNA AVE	TPH as Gasoline	mg/kg	0.28	Max	6.6E+04	--	4E-06	--
24618 RAVENNA AVE	TPH as Motor Oil	mg/kg	17	Max	2.9E+05	--	6E-05	--
24619 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	8000	Max	7.2E+06	--	1E-03	--
24619 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1500	Max	7.4E+06	--	2E-04	--
24619 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	59	Max	3.5E+05	1.4E+03	2E-04	4E-08
24619 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	87	Max	2.0E+04	--	4E-03	--
24619 NEPTUNE AVE	Benzene	µg/kg	2400	Max	5.8E+06	1.9E+04	4E-04	1E-07
24619 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.3	Max	1.1E+05	3.0E+03	1E-05	4E-10
24619 NEPTUNE AVE	Ethylbenzene	µg/kg	3800	Max	2.9E+08	4.2E+05	1E-05	9E-09
24619 NEPTUNE AVE	Naphthalene	mg/kg	31	Max	1.3E+04	3.5E+02	2E-03	9E-08

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24619 NEPTUNE AVE	Pyrene	mg/kg	9.1	Max	1.5E+05	--	6E-05	--
24619 NEPTUNE AVE	Toluene	µg/kg	89	Max	4.2E+08	--	2E-07	--
24619 NEPTUNE AVE	TPH as Diesel	mg/kg	23000	Max	1.1E+05	--	2E-01	--
24619 NEPTUNE AVE	TPH as Gasoline	mg/kg	840	Max	6.6E+04	--	1E-02	--
24619 NEPTUNE AVE	TPH as Motor Oil	mg/kg	20000	Max	2.9E+05	--	7E-02	--
24619 NEPTUNE AVE	Xylenes, Total	µg/kg	3700	Max	4.9E+07	--	8E-05	--
24619 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	13000	95UCL	7.2E+06	--	2E-03	--
24619 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	710	95UCL	7.4E+06	--	1E-04	--
24619 PANAMA AVE	1-Methylnaphthalene	mg/kg	23	95UCL	3.5E+05	1.4E+03	7E-05	2E-08
24619 PANAMA AVE	2-Methylnaphthalene	mg/kg	39	95UCL	2.0E+04	--	2E-03	--
24619 PANAMA AVE	Benzene	µg/kg	1800	95UCL	5.8E+06	1.9E+04	3E-04	9E-08
24619 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.23	Max	2.1E+04	1.1E+02	1E-05	2E-09
24619 PANAMA AVE	Ethylbenzene	µg/kg	4300	95UCL	2.9E+08	4.2E+05	2E-05	1E-08
24619 PANAMA AVE	Naphthalene	mg/kg	16	95UCL	1.3E+04	3.5E+02	1E-03	5E-08
24619 PANAMA AVE	Pyrene	mg/kg	2.2	95UCL	1.5E+05	--	2E-05	--
24619 PANAMA AVE	Toluene	µg/kg	0.517	95UCL	4.2E+08	--	1E-09	--
24619 PANAMA AVE	TPH as Diesel	mg/kg	7800	95UCL	1.1E+05	--	7E-02	--
24619 PANAMA AVE	TPH as Gasoline	mg/kg	1400	95UCL	6.6E+04	--	2E-02	--
24619 PANAMA AVE	TPH as Motor Oil	mg/kg	10000	95UCL	2.9E+05	--	3E-02	--
24619 PANAMA AVE	Xylenes, Total	µg/kg	6300	95UCL	4.9E+07	--	1E-04	--
24619 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2557	95UCL	7.2E+06	--	4E-04	--
24619 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	2400	Max	7.4E+06	--	3E-04	--
24619 RAVENNA AVE	1-Methylnaphthalene	mg/kg	30.32	95UCL	3.5E+05	1.4E+03	9E-05	2E-08
24619 RAVENNA AVE	2-Methylnaphthalene	mg/kg	43.27	95UCL	2.0E+04	--	2E-03	--
24619 RAVENNA AVE	Benzene	µg/kg	1700	Max	5.8E+06	1.9E+04	3E-04	9E-08
24619 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.35	Max	2.1E+04	1.1E+02	2E-05	3E-09
24619 RAVENNA AVE	Ethylbenzene	µg/kg	5300	Max	2.9E+08	4.2E+05	2E-05	1E-08
24619 RAVENNA AVE	Naphthalene	mg/kg	11.46	95UCL	1.3E+04	3.5E+02	9E-04	3E-08
24619 RAVENNA AVE	Pyrene	mg/kg	5.53	95UCL	1.5E+05	--	4E-05	--
24619 RAVENNA AVE	Toluene	µg/kg	1500	Max	4.2E+08	--	4E-06	--
24619 RAVENNA AVE	TPH as Diesel	mg/kg	7796	95UCL	1.1E+05	--	7E-02	--
24619 RAVENNA AVE	TPH as Gasoline	mg/kg	611	95UCL	6.6E+04	--	9E-03	--
24619 RAVENNA AVE	TPH as Motor Oil	mg/kg	8094	95UCL	2.9E+05	--	3E-02	--
24619 RAVENNA AVE	Xylenes, Total	µg/kg	8200	Max	4.9E+07	--	2E-04	--
24622 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	4091	95UCL	7.2E+06	--	6E-04	--
24622 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1190	95UCL	7.4E+06	--	2E-04	--
24622 MARBELLA AVE	1-Methylnaphthalene	mg/kg	35.57	95UCL	3.5E+05	1.4E+03	1E-04	3E-08
24622 MARBELLA AVE	2-Methylnaphthalene	mg/kg	63.1	95UCL	2.0E+04	--	3E-03	--
24622 MARBELLA AVE	Benzene	µg/kg	895.6	95UCL	5.8E+06	1.9E+04	2E-04	5E-08
24622 MARBELLA AVE	Benzo (a) Anthracene	mg/kg	2.1	95UCL	--	1.4E+02	--	2E-08
24622 MARBELLA AVE	Benzo (a) Pyrene	mg/kg	0.3	95UCL	--	1.4E+01	--	2E-08
24622 MARBELLA AVE	Benzo (b) Fluoranthene	mg/kg	0.101	95UCL	--	1.4E+02	--	7E-10
24622 MARBELLA AVE	Benzo (k) Fluoranthene	mg/kg	0.0021	Max	--	1.4E+02	--	2E-11
24622 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.18	Max	1.1E+05	3.0E+03	2E-06	6E-11
24622 MARBELLA AVE	Bromomethane	µg/kg	310	Max	7.7E+05	--	4E-04	--
24622 MARBELLA AVE	Chrysene	mg/kg	1.636	95UCL	--	1.4E+03	--	1E-09
24622 MARBELLA AVE	Cobalt	mg/kg	8.361	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
24622 MARBELLA AVE	Dibenz (a,h) Anthracene	mg/kg	0.0007	Max	--	9.7E+00	--	7E-11
24622 MARBELLA AVE	Ethylbenzene	µg/kg	3489	95UCL	2.9E+08	4.2E+05	1E-05	8E-09
24622 MARBELLA AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.0021	Max	--	1.4E+02	--	2E-11
24622 MARBELLA AVE	Naphthalene	mg/kg	24.77	95UCL	1.3E+04	3.5E+02	2E-03	7E-08
24622 MARBELLA AVE	Pyrene	mg/kg	7.4	95UCL	1.5E+05	--	5E-05	--
24622 MARBELLA AVE	Toluene	µg/kg	150.3	95UCL	4.2E+08	--	4E-07	--
24622 MARBELLA AVE	TPH as Diesel	mg/kg	10965	95UCL	1.1E+05	--	1E-01	--
24622 MARBELLA AVE	TPH as Gasoline	mg/kg	1170	95UCL	6.6E+04	--	2E-02	--
24622 MARBELLA AVE	TPH as Motor Oil	mg/kg	10148	95UCL	2.9E+05	--	4E-02	--
24622 MARBELLA AVE	Vanadium	mg/kg	31.6	95UCL	3.4E+04	--	9E-04	--
24622 MARBELLA AVE	Xylenes, Total	µg/kg	2200	95UCL	4.9E+07	--	5E-05	--
24622 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	3095	95UCL	7.2E+06	--	4E-04	--
24622 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	197.1	95UCL	7.4E+06	--	3E-05	--
24622 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	20.01	95UCL	3.5E+05	1.4E+03	6E-05	2E-08
24622 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	1.9	Max	1.1E+04	1.4E+02	2E-04	1E-08

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Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24622 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	30.52	95UCL	2.0E+04	--	2E-03	--
24622 NEPTUNE AVE	Benzene	µg/kg	717.2	95UCL	5.8E+06	1.9E+04	1E-04	4E-08
24622 NEPTUNE AVE	Ethylbenzene	µg/kg	2181	95UCL	2.9E+08	4.2E+05	8E-06	5E-09
24622 NEPTUNE AVE	Naphthalene	mg/kg	11.33	95UCL	1.3E+04	3.5E+02	9E-04	3E-08
24622 NEPTUNE AVE	Pyrene	mg/kg	2.353	95UCL	1.5E+05	--	2E-05	--
24622 NEPTUNE AVE	Toluene	µg/kg	39	Max	4.2E+08	--	9E-08	--
24622 NEPTUNE AVE	TPH as Diesel	mg/kg	10562	95UCL	1.1E+05	--	1E-01	--
24622 NEPTUNE AVE	TPH as Gasoline	mg/kg	514.8	95UCL	6.6E+04	--	8E-03	--
24622 NEPTUNE AVE	TPH as Motor Oil	mg/kg	12340	95UCL	2.9E+05	--	4E-02	--
24622 NEPTUNE AVE	Trichloroethene	µg/kg	20	Max	5.0E+05	1.0E+05	4E-05	2E-10
24622 NEPTUNE AVE	Xylenes, Total	µg/kg	836.2	95UCL	4.9E+07	--	2E-05	--
24623 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	860	Max	7.2E+06	--	1E-04	--
24623 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	43	Max	7.4E+06	--	6E-06	--
24623 MARBELLA AVE	1-Methylnaphthalene	mg/kg	8.5	Max	3.5E+05	1.4E+03	2E-05	6E-09
24623 MARBELLA AVE	2-Methylnaphthalene	mg/kg	7.644	95UCL	2.0E+04	--	4E-04	--
24623 MARBELLA AVE	Benzene	µg/kg	0.18	Max	5.8E+06	1.9E+04	3E-08	9E-12
24623 MARBELLA AVE	Cobalt	mg/kg	11.36	95UCL	2.1E+03	2.7E+06	6E-03	4E-12
24623 MARBELLA AVE	Ethylbenzene	µg/kg	380	Max	2.9E+08	4.2E+05	1E-06	9E-10
24623 MARBELLA AVE	Naphthalene	mg/kg	12.3	95UCL	1.3E+04	3.5E+02	9E-04	4E-08
24623 MARBELLA AVE	Pyrene	mg/kg	0.21	Max	1.5E+05	--	1E-06	--
24623 MARBELLA AVE	Toluene	µg/kg	0.13	Max	4.2E+08	--	3E-10	--
24623 MARBELLA AVE	TPH as Diesel	mg/kg	5500	Max	1.1E+05	--	5E-02	--
24623 MARBELLA AVE	TPH as Gasoline	mg/kg	1400	Max	6.6E+04	--	2E-02	--
24623 MARBELLA AVE	TPH as Motor Oil	mg/kg	5500	Max	2.9E+05	--	2E-02	--
24623 MARBELLA AVE	Vanadium	mg/kg	48.18	95UCL	3.4E+04	--	1E-03	--
24623 MARBELLA AVE	Xylenes, Total	µg/kg	220	Max	4.9E+07	--	5E-06	--
24623 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	4600	95UCL	7.2E+06	--	6E-04	--
24623 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	777.1	95UCL	7.4E+06	--	1E-04	--
24623 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	79.38	95UCL	3.5E+05	1.4E+03	2E-04	6E-08
24623 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	121	95UCL	2.0E+04	--	6E-03	--
24623 NEPTUNE AVE	Benzene	µg/kg	673.6	95UCL	5.8E+06	1.9E+04	1E-04	4E-08
24623 NEPTUNE AVE	Benzo (a) Anthracene	mg/kg	4.981	95UCL	--	1.4E+02	--	4E-08
24623 NEPTUNE AVE	Benzo (a) Pyrene	mg/kg	1.837	95UCL	--	1.4E+01	--	1E-07
24623 NEPTUNE AVE	Benzo (b) Fluoranthene	mg/kg	0.5	Max	--	1.4E+02	--	4E-09
24623 NEPTUNE AVE	Benzo (k) Fluoranthene	mg/kg	0.0053	Max	--	1.4E+02	--	4E-11
24623 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.33	Max	2.1E+04	1.1E+02	2E-05	3E-09
24623 NEPTUNE AVE	Chrysene	mg/kg	5.337	95UCL	--	1.4E+03	--	4E-09
24623 NEPTUNE AVE	Dibenz (a,h) Anthracene	mg/kg	0.0014	Max	--	9.7E+00	--	1E-10
24623 NEPTUNE AVE	Ethylbenzene	µg/kg	2272	95UCL	2.9E+08	4.2E+05	8E-06	5E-09
24623 NEPTUNE AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.0028	Max	--	1.4E+02	--	2E-11
24623 NEPTUNE AVE	Naphthalene	mg/kg	35.36	95UCL	1.3E+04	3.5E+02	3E-03	1E-07
24623 NEPTUNE AVE	Pyrene	mg/kg	24.46	95UCL	1.5E+05	--	2E-04	--
24623 NEPTUNE AVE	Toluene	µg/kg	45.22	95UCL	4.2E+08	--	1E-07	--
24623 NEPTUNE AVE	TPH as Diesel	mg/kg	16425	95UCL	1.1E+05	--	2E-01	--
24623 NEPTUNE AVE	TPH as Gasoline	mg/kg	828.8	95UCL	6.6E+04	--	1E-02	--
24623 NEPTUNE AVE	TPH as Motor Oil	mg/kg	17179	95UCL	2.9E+05	--	6E-02	--
24623 NEPTUNE AVE	Xylenes, Total	µg/kg	3600	95UCL	4.9E+07	--	7E-05	--
24627 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	16000	Max	7.2E+06	--	2E-03	--
24627 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	4200	Max	7.4E+06	--	6E-04	--
24627 MARBELLA AVE	1-Methylnaphthalene	mg/kg	16.64	95UCL	3.5E+05	1.4E+03	5E-05	1E-08
24627 MARBELLA AVE	2-Methylnaphthalene	mg/kg	26.88	95UCL	2.0E+04	--	1E-03	--
24627 MARBELLA AVE	Benzene	µg/kg	772.4	95UCL	5.8E+06	1.9E+04	1E-04	4E-08
24627 MARBELLA AVE	Cobalt	mg/kg	11.58	95UCL	2.1E+03	2.7E+06	6E-03	4E-12
24627 MARBELLA AVE	Ethylbenzene	µg/kg	11000	Max	2.9E+08	4.2E+05	4E-05	3E-08
24627 MARBELLA AVE	Naphthalene	mg/kg	11.32	95UCL	1.3E+04	3.5E+02	9E-04	3E-08
24627 MARBELLA AVE	Pyrene	mg/kg	2	Max	1.5E+05	--	1E-05	--
24627 MARBELLA AVE	Toluene	µg/kg	47	Max	4.2E+08	--	1E-07	--
24627 MARBELLA AVE	TPH as Diesel	mg/kg	23000	Max	1.1E+05	--	2E-01	--
24627 MARBELLA AVE	TPH as Gasoline	mg/kg	2700	Max	6.6E+04	--	4E-02	--
24627 MARBELLA AVE	TPH as Motor Oil	mg/kg	28000	Max	2.9E+05	--	1E-01	--
24627 MARBELLA AVE	Vanadium	mg/kg	49.12	95UCL	3.4E+04	--	1E-03	--
24627 MARBELLA AVE	Xylenes, Total	µg/kg	10000	Max	4.9E+07	--	2E-04	--

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Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24628 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	3371	95UCL	7.2E+06	--	5E-04	--
24628 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	731.6	95UCL	7.4E+06	--	1E-04	--
24628 MARBELLA AVE	1-Methylnaphthalene	mg/kg	15.1	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24628 MARBELLA AVE	2-Methylnaphthalene	mg/kg	46.15	95UCL	2.0E+04	--	2E-03	--
24628 MARBELLA AVE	Benzene	µg/kg	701.1	95UCL	5.8E+06	1.9E+04	1E-04	4E-08
24628 MARBELLA AVE	Cobalt	mg/kg	10.82	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24628 MARBELLA AVE	Ethylbenzene	µg/kg	2833	95UCL	2.9E+08	4.2E+05	1E-05	7E-09
24628 MARBELLA AVE	Naphthalene	mg/kg	23.6	95UCL	1.3E+04	3.5E+02	2E-03	7E-08
24628 MARBELLA AVE	Pyrene	mg/kg	2.501	95UCL	1.5E+05	--	2E-05	--
24628 MARBELLA AVE	Toluene	µg/kg	94.6	95UCL	4.2E+08	--	2E-07	--
24628 MARBELLA AVE	TPH as Diesel	mg/kg	22170	95UCL	1.1E+05	--	2E-01	--
24628 MARBELLA AVE	TPH as Gasoline	mg/kg	1015	95UCL	6.6E+04	--	2E-02	--
24628 MARBELLA AVE	TPH as Motor Oil	mg/kg	27061	95UCL	2.9E+05	--	9E-02	--
24628 MARBELLA AVE	Vanadium	mg/kg	40.18	95UCL	3.4E+04	--	1E-03	--
24628 MARBELLA AVE	Xylenes, Total	µg/kg	11000	Max	4.9E+07	--	2E-04	--
24628 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	140	Max	7.2E+06	--	2E-05	--
24628 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	23	Max	7.4E+06	--	3E-06	--
24628 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	13	Max	3.5E+05	1.4E+03	4E-05	1E-08
24628 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	18	Max	2.0E+04	--	9E-04	--
24628 NEPTUNE AVE	Benzene	µg/kg	490	Max	5.8E+06	1.9E+04	8E-05	3E-08
24628 NEPTUNE AVE	Ethylbenzene	µg/kg	2400	Max	2.9E+08	4.2E+05	8E-06	6E-09
24628 NEPTUNE AVE	Naphthalene	mg/kg	6.6	Max	1.3E+04	3.5E+02	5E-04	2E-08
24628 NEPTUNE AVE	Pyrene	mg/kg	3.1	Max	1.5E+05	--	2E-05	--
24628 NEPTUNE AVE	Toluene	µg/kg	0.97	Max	4.2E+08	--	2E-09	--
24628 NEPTUNE AVE	TPH as Diesel	mg/kg	13000	Max	1.1E+05	--	1E-01	--
24628 NEPTUNE AVE	TPH as Gasoline	mg/kg	680	Max	6.6E+04	--	1E-02	--
24628 NEPTUNE AVE	TPH as Motor Oil	mg/kg	13000	Max	2.9E+05	--	5E-02	--
24628 NEPTUNE AVE	Xylenes, Total	µg/kg	290	Max	4.9E+07	--	6E-06	--
24629 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	6168	95UCL	7.2E+06	--	9E-04	--
24629 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	2300	Max	7.4E+06	--	3E-04	--
24629 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	27.63	95UCL	3.5E+05	1.4E+03	8E-05	2E-08
24629 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	3.1	Max	1.1E+04	1.4E+02	3E-04	2E-08
24629 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	42.5	95UCL	2.0E+04	--	2E-03	--
24629 NEPTUNE AVE	Benzene	µg/kg	1232	95UCL	5.8E+06	1.9E+04	2E-04	6E-08
24629 NEPTUNE AVE	Ethylbenzene	µg/kg	3995	95UCL	2.9E+08	4.2E+05	1E-05	1E-08
24629 NEPTUNE AVE	Naphthalene	mg/kg	12.8	95UCL	1.3E+04	3.5E+02	1E-03	4E-08
24629 NEPTUNE AVE	Pyrene	mg/kg	5.511	95UCL	1.5E+05	--	4E-05	--
24629 NEPTUNE AVE	Toluene	µg/kg	31	95UCL	4.2E+08	--	7E-08	--
24629 NEPTUNE AVE	TPH as Diesel	mg/kg	10920	95UCL	1.1E+05	--	1E-01	--
24629 NEPTUNE AVE	TPH as Gasoline	mg/kg	975.4	95UCL	6.6E+04	--	2E-02	--
24629 NEPTUNE AVE	TPH as Motor Oil	mg/kg	12064	95UCL	2.9E+05	--	4E-02	--
24629 NEPTUNE AVE	Xylenes, Total	µg/kg	6307	95UCL	4.9E+07	--	1E-04	--
24632 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	6600	Max	7.2E+06	--	9E-04	--
24632 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	540	Max	7.4E+06	--	7E-05	--
24632 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	67	Max	3.5E+05	1.4E+03	2E-04	5E-08
24632 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	98	Max	2.0E+04	--	5E-03	--
24632 NEPTUNE AVE	Benzene	µg/kg	420	Max	5.8E+06	1.9E+04	7E-05	2E-08
24632 NEPTUNE AVE	Ethylbenzene	µg/kg	2700	Max	2.9E+08	4.2E+05	1E-05	7E-09
24632 NEPTUNE AVE	Naphthalene	mg/kg	37	Max	1.3E+04	3.5E+02	3E-03	1E-07
24632 NEPTUNE AVE	Pyrene	mg/kg	11	Max	1.5E+05	--	7E-05	--
24632 NEPTUNE AVE	Toluene	µg/kg	44	Max	4.2E+08	--	1E-07	--
24632 NEPTUNE AVE	TPH as Diesel	mg/kg	14000	Max	1.1E+05	--	1E-01	--
24632 NEPTUNE AVE	TPH as Gasoline	mg/kg	520	Max	6.6E+04	--	8E-03	--
24632 NEPTUNE AVE	TPH as Motor Oil	mg/kg	14000	Max	2.9E+05	--	5E-02	--
24632 NEPTUNE AVE	Xylenes, Total	µg/kg	2400	Max	4.9E+07	--	5E-05	--
24633 MARBELLA AVE	Benzene	µg/kg	0.44	95UCL	5.8E+06	1.9E+04	8E-08	2E-11
24633 MARBELLA AVE	Cobalt	mg/kg	12.94	95UCL	2.1E+03	2.7E+06	6E-03	5E-12
24633 MARBELLA AVE	Naphthalene	mg/kg	0.0102	95UCL	1.3E+04	3.5E+02	8E-07	3E-11
24633 MARBELLA AVE	Pyrene	mg/kg	0.00217	95UCL	1.5E+05	--	1E-08	--
24633 MARBELLA AVE	Toluene	µg/kg	0.89	Max	4.2E+08	--	2E-09	--
24633 MARBELLA AVE	TPH as Diesel	mg/kg	5.1	Max	1.1E+05	--	5E-05	--
24633 MARBELLA AVE	TPH as Gasoline	mg/kg	0.069	Max	6.6E+04	--	1E-06	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24633 MARBELLA AVE	TPH as Motor Oil	mg/kg	24.44	95UCL	2.9E+05	--	8E-05	--
24633 MARBELLA AVE	Xylenes, Total	µg/kg	0.28	Max	4.9E+07	--	6E-09	--
24700 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	12000	Max	7.2E+06	--	2E-03	--
24700 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1500	Max	7.4E+06	--	2E-04	--
24700 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.29	Max	3.2E+08	2.4E+05	9E-10	1E-12
24700 MARBELLA AVE	1-Methylnaphthalene	mg/kg	75	Max	3.5E+05	1.4E+03	2E-04	6E-08
24700 MARBELLA AVE	2-Methylnaphthalene	mg/kg	110	Max	2.0E+04	--	6E-03	--
24700 MARBELLA AVE	Benzene	µg/kg	180	Max	5.8E+06	1.9E+04	3E-05	9E-09
24700 MARBELLA AVE	Bromomethane	µg/kg	280	Max	7.7E+05	--	4E-04	--
24700 MARBELLA AVE	Cobalt	mg/kg	11.1	Max	2.1E+03	2.7E+06	5E-03	4E-12
24700 MARBELLA AVE	Ethylbenzene	µg/kg	9000	Max	2.9E+08	4.2E+05	3E-05	2E-08
24700 MARBELLA AVE	Naphthalene	mg/kg	42	Max	1.3E+04	3.5E+02	3E-03	1E-07
24700 MARBELLA AVE	Pyrene	mg/kg	4	Max	1.5E+05	--	3E-05	--
24700 MARBELLA AVE	Toluene	µg/kg	20	Max	4.2E+08	--	5E-08	--
24700 MARBELLA AVE	TPH as Diesel	mg/kg	19000	Max	1.1E+05	--	2E-01	--
24700 MARBELLA AVE	TPH as Gasoline	mg/kg	1400	Max	6.6E+04	--	2E-02	--
24700 MARBELLA AVE	TPH as Motor Oil	mg/kg	17000	Max	2.9E+05	--	6E-02	--
24700 MARBELLA AVE	Xylenes, Total	µg/kg	8000	Max	4.9E+07	--	2E-04	--
24700 RAVENNA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.31	Max	5.4E+07	4.1E+04	6E-09	8E-12
24700 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	32	Max	7.2E+06	--	4E-06	--
24700 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	10	Max	7.4E+06	--	1E-06	--
24700 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0065	Max	2.0E+04	--	3E-07	--
24700 RAVENNA AVE	Benzene	µg/kg	0.53	Max	5.8E+06	1.9E+04	9E-08	3E-11
24700 RAVENNA AVE	Bromomethane	µg/kg	1.9	Max	7.7E+05	--	3E-06	--
24700 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.26	95UCL	2.1E+04	1.1E+02	1E-05	2E-09
24700 RAVENNA AVE	Ethylbenzene	µg/kg	21	Max	2.9E+08	4.2E+05	7E-08	5E-11
24700 RAVENNA AVE	Naphthalene	mg/kg	0.07	Max	1.3E+04	3.5E+02	5E-06	2E-10
24700 RAVENNA AVE	Pyrene	mg/kg	0.00414	95UCL	1.5E+05	--	3E-08	--
24700 RAVENNA AVE	Toluene	µg/kg	0.35	Max	4.2E+08	--	8E-10	--
24700 RAVENNA AVE	TPH as Diesel	mg/kg	11	Max	1.1E+05	--	1E-04	--
24700 RAVENNA AVE	TPH as Gasoline	mg/kg	54	Max	6.6E+04	--	8E-04	--
24700 RAVENNA AVE	TPH as Motor Oil	mg/kg	59	Max	2.9E+05	--	2E-04	--
24700 RAVENNA AVE	Xylenes, Total	µg/kg	3.5	Max	4.9E+07	--	7E-08	--
24702 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	9686	95UCL	7.2E+06	--	1E-03	--
24702 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	289.8	95UCL	7.4E+06	--	4E-05	--
24702 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	21.77	95UCL	3.5E+05	1.4E+03	6E-05	2E-08
24702 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	33.05	95UCL	2.0E+04	--	2E-03	--
24702 NEPTUNE AVE	Benzene	µg/kg	175.4	95UCL	5.8E+06	1.9E+04	3E-05	9E-09
24702 NEPTUNE AVE	Ethylbenzene	µg/kg	2006	95UCL	2.9E+08	4.2E+05	7E-06	5E-09
24702 NEPTUNE AVE	Naphthalene	mg/kg	14.17	95UCL	1.3E+04	3.5E+02	1E-03	4E-08
24702 NEPTUNE AVE	Pyrene	mg/kg	6.635	95UCL	1.5E+05	--	4E-05	--
24702 NEPTUNE AVE	Toluene	µg/kg	36	95UCL	4.2E+08	--	9E-08	--
24702 NEPTUNE AVE	TPH as Diesel	mg/kg	15050	95UCL	1.1E+05	--	1E-01	--
24702 NEPTUNE AVE	TPH as Gasoline	mg/kg	830	95UCL	6.6E+04	--	1E-02	--
24702 NEPTUNE AVE	TPH as Motor Oil	mg/kg	12300	95UCL	2.9E+05	--	4E-02	--
24702 NEPTUNE AVE	Xylenes, Total	µg/kg	1540	95UCL	4.9E+07	--	3E-05	--
24702 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	930	Max	7.2E+06	--	1E-04	--
24702 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	200	Max	7.4E+06	--	3E-05	--
24702 PANAMA AVE	1-Methylnaphthalene	mg/kg	32	Max	3.5E+05	1.4E+03	9E-05	2E-08
24702 PANAMA AVE	2-Methylnaphthalene	mg/kg	42	Max	2.0E+04	--	2E-03	--
24702 PANAMA AVE	Benzene	µg/kg	34	Max	5.8E+06	1.9E+04	6E-06	2E-09
24702 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.37	Max	2.1E+04	1.1E+02	2E-05	3E-09
24702 PANAMA AVE	Ethylbenzene	µg/kg	200	Max	2.9E+08	4.2E+05	7E-07	5E-10
24702 PANAMA AVE	Naphthalene	mg/kg	9.9	Max	1.3E+04	3.5E+02	8E-04	3E-08
24702 PANAMA AVE	Pyrene	mg/kg	12	Max	1.5E+05	--	8E-05	--
24702 PANAMA AVE	Toluene	µg/kg	27	Max	4.2E+08	--	6E-08	--
24702 PANAMA AVE	TPH as Diesel	mg/kg	25000	Max	1.1E+05	--	2E-01	--
24702 PANAMA AVE	TPH as Gasoline	mg/kg	86	Max	6.6E+04	--	1E-03	--
24702 PANAMA AVE	TPH as Motor Oil	mg/kg	26000	Max	2.9E+05	--	9E-02	--
24702 PANAMA AVE	Xylenes, Total	µg/kg	300	Max	4.9E+07	--	6E-06	--
24703 MARBELLA AVE	Benzene	µg/kg	0.23	Max	5.8E+06	1.9E+04	4E-08	1E-11
24703 MARBELLA AVE	Bromodichloromethane	µg/kg	0.14	Max	3.8E+07	4.2E+04	4E-09	3E-12

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24703 MARBELLA AVE	Cobalt	mg/kg	9.526	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
24703 MARBELLA AVE	Naphthalene	mg/kg	0.01	Max	1.3E+04	3.5E+02	8E-07	3E-11
24703 MARBELLA AVE	Pyrene	mg/kg	0.0034	Max	1.5E+05	--	2E-08	--
24703 MARBELLA AVE	Tetrachloroethene	µg/kg	1.1	Max	7.5E+06	4.9E+04	2E-07	2E-11
24703 MARBELLA AVE	Toluene	µg/kg	0.31	Max	4.2E+08	--	7E-10	--
24703 MARBELLA AVE	TPH as Diesel	mg/kg	9.3	Max	1.1E+05	--	9E-05	--
24703 MARBELLA AVE	TPH as Gasoline	mg/kg	1.1	Max	6.6E+04	--	2E-05	--
24703 MARBELLA AVE	TPH as Motor Oil	mg/kg	24	Max	2.9E+05	--	8E-05	--
24703 NEPTUNE AVE	1,2,3-Trichloropropane	µg/kg	0.81	Max	2.1E+05	1.9E+03	4E-06	4E-10
24703 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	187.5	95UCL	7.2E+06	--	3E-05	--
24703 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	5.571	95UCL	7.4E+06	--	8E-07	--
24703 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	11.92	95UCL	3.5E+05	1.4E+03	3E-05	9E-09
24703 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	15.76	95UCL	2.0E+04	--	8E-04	--
24703 NEPTUNE AVE	Benzene	µg/kg	62.44	95UCL	5.8E+06	1.9E+04	1E-05	3E-09
24703 NEPTUNE AVE	Bromomethane	µg/kg	200	Max	7.7E+05	--	3E-04	--
24703 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.13	Max	2.1E+04	1.1E+02	6E-06	1E-09
24703 NEPTUNE AVE	Ethylbenzene	µg/kg	1296	95UCL	2.9E+08	4.2E+05	5E-06	3E-09
24703 NEPTUNE AVE	Naphthalene	mg/kg	4.753	95UCL	1.3E+04	3.5E+02	4E-04	1E-08
24703 NEPTUNE AVE	Pyrene	mg/kg	3.28	95UCL	1.5E+05	--	2E-05	--
24703 NEPTUNE AVE	Toluene	µg/kg	10.42	95UCL	4.2E+08	--	3E-08	--
24703 NEPTUNE AVE	TPH as Diesel	mg/kg	9953	95UCL	1.1E+05	--	9E-02	--
24703 NEPTUNE AVE	TPH as Gasoline	mg/kg	585.9	95UCL	6.6E+04	--	9E-03	--
24703 NEPTUNE AVE	TPH as Motor Oil	mg/kg	11020	95UCL	2.9E+05	--	4E-02	--
24703 NEPTUNE AVE	Xylenes, Total	µg/kg	29.54	95UCL	4.9E+07	--	6E-07	--
24703 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	12366	95UCL	7.2E+06	--	2E-03	--
24703 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1811	95UCL	7.4E+06	--	2E-04	--
24703 RAVENNA AVE	1-Methylnaphthalene	mg/kg	59.92	95UCL	3.5E+05	1.4E+03	2E-04	4E-08
24703 RAVENNA AVE	2-Methylnaphthalene	mg/kg	94	95UCL	2.0E+04	--	5E-03	--
24703 RAVENNA AVE	Benzene	µg/kg	1045	95UCL	5.8E+06	1.9E+04	2E-04	5E-08
24703 RAVENNA AVE	Ethylbenzene	µg/kg	3333	95UCL	2.9E+08	4.2E+05	1E-05	8E-09
24703 RAVENNA AVE	Naphthalene	mg/kg	38.76	95UCL	1.3E+04	3.5E+02	3E-03	1E-07
24703 RAVENNA AVE	Pyrene	mg/kg	8.229	95UCL	1.5E+05	--	6E-05	--
24703 RAVENNA AVE	Toluene	µg/kg	99.82	95UCL	4.2E+08	--	2E-07	--
24703 RAVENNA AVE	TPH as Diesel	mg/kg	15434	95UCL	1.1E+05	--	1E-01	--
24703 RAVENNA AVE	TPH as Gasoline	mg/kg	901.3	95UCL	6.6E+04	--	1E-02	--
24703 RAVENNA AVE	TPH as Motor Oil	mg/kg	14353	95UCL	2.9E+05	--	5E-02	--
24703 RAVENNA AVE	Xylenes, Total	µg/kg	6564	95UCL	4.9E+07	--	1E-04	--
24706 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	3694	95UCL	7.2E+06	--	5E-04	--
24706 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1072	95UCL	7.4E+06	--	1E-04	--
24706 MARBELLA AVE	1-Methylnaphthalene	mg/kg	26.67	95UCL	3.5E+05	1.4E+03	8E-05	2E-08
24706 MARBELLA AVE	2-Methylnaphthalene	mg/kg	42.54	95UCL	2.0E+04	--	2E-03	--
24706 MARBELLA AVE	Benzene	µg/kg	190	Max	5.8E+06	1.9E+04	3E-05	1E-08
24706 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.3	Max	1.1E+05	3.0E+03	3E-06	1E-10
24706 MARBELLA AVE	Cobalt	mg/kg	7.193	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
24706 MARBELLA AVE	Ethylbenzene	µg/kg	18000	95UCL	2.9E+08	4.2E+05	6E-05	4E-08
24706 MARBELLA AVE	Naphthalene	mg/kg	16.16	95UCL	1.3E+04	3.5E+02	1E-03	5E-08
24706 MARBELLA AVE	Pyrene	mg/kg	3.372	95UCL	1.5E+05	--	2E-05	--
24706 MARBELLA AVE	Toluene	µg/kg	200	Max	4.2E+08	--	5E-07	--
24706 MARBELLA AVE	TPH as Diesel	mg/kg	13123	95UCL	1.1E+05	--	1E-01	--
24706 MARBELLA AVE	TPH as Gasoline	mg/kg	1360	95UCL	6.6E+04	--	2E-02	--
24706 MARBELLA AVE	TPH as Motor Oil	mg/kg	12197	95UCL	2.9E+05	--	4E-02	--
24706 MARBELLA AVE	Xylenes, Total	µg/kg	3167	95UCL	4.9E+07	--	7E-05	--
24706 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.374	95UCL	7.2E+06	--	5E-08	--
24706 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.16	Max	7.4E+06	--	2E-08	--
24706 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.014	Max	3.5E+05	1.4E+03	4E-08	1E-11
24706 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.022	Max	2.0E+04	--	1E-06	--
24706 RAVENNA AVE	Benzene	µg/kg	0.31	Max	5.8E+06	1.9E+04	5E-08	2E-11
24706 RAVENNA AVE	Ethylbenzene	µg/kg	3.8	Max	2.9E+08	4.2E+05	1E-08	9E-12
24706 RAVENNA AVE	Naphthalene	mg/kg	0.046	Max	1.3E+04	3.5E+02	4E-06	1E-10
24706 RAVENNA AVE	Pyrene	mg/kg	0.0703	95UCL	1.5E+05	--	5E-07	--
24706 RAVENNA AVE	Toluene	µg/kg	0.44	Max	4.2E+08	--	1E-09	--
24706 RAVENNA AVE	TPH as Diesel	mg/kg	107.3	95UCL	1.1E+05	--	1E-03	--

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Detailed Risk Calculations

Table E-3
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Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24706 RAVENNA AVE	TPH as Gasoline	mg/kg	0.43	Max	6.6E+04	--	7E-06	--
24706 RAVENNA AVE	TPH as Motor Oil	mg/kg	368.4	95UCL	2.9E+05	--	1E-03	--
24706 RAVENNA AVE	Xylenes, Total	µg/kg	0.688	95UCL	4.9E+07	--	1E-08	--
24707 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.367	95UCL	7.2E+06	--	5E-08	--
24707 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.191	95UCL	7.4E+06	--	3E-08	--
24707 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0019	Max	2.0E+04	--	1E-07	--
24707 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.1E+04	1.1E+02	2E-05	4E-09
24707 MARBELLA AVE	Cobalt	mg/kg	7.43	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
24707 MARBELLA AVE	Ethylbenzene	µg/kg	3.08	95UCL	2.9E+08	4.2E+05	1E-08	7E-12
24707 MARBELLA AVE	Naphthalene	mg/kg	0.00037	Max	1.3E+04	3.5E+02	3E-08	1E-12
24707 MARBELLA AVE	Pyrene	mg/kg	0.013	Max	1.5E+05	--	9E-08	--
24707 MARBELLA AVE	Toluene	µg/kg	0.22	Max	4.2E+08	--	5E-10	--
24707 MARBELLA AVE	Xylenes, Total	µg/kg	4.762	95UCL	4.9E+07	--	1E-07	--
24708 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	96.16	95UCL	7.2E+06	--	1E-05	--
24708 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	7.682	95UCL	7.4E+06	--	1E-06	--
24708 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.975	95UCL	3.5E+05	1.4E+03	3E-06	7E-10
24708 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.461	95UCL	2.0E+04	--	7E-05	--
24708 PANAMA AVE	Benzene	µg/kg	0.344	95UCL	5.8E+06	1.9E+04	6E-08	2E-11
24708 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.72	Max	2.1E+04	1.1E+02	4E-05	6E-09
24708 PANAMA AVE	Ethylbenzene	µg/kg	34.21	95UCL	2.9E+08	4.2E+05	1E-07	8E-11
24708 PANAMA AVE	Naphthalene	mg/kg	0.424	95UCL	1.3E+04	3.5E+02	3E-05	1E-09
24708 PANAMA AVE	Pyrene	mg/kg	3.5	95UCL	1.5E+05	--	2E-05	--
24708 PANAMA AVE	Toluene	µg/kg	0.49	Max	4.2E+08	--	1E-09	--
24708 PANAMA AVE	TPH as Diesel	mg/kg	4611	95UCL	1.1E+05	--	4E-02	--
24708 PANAMA AVE	TPH as Gasoline	mg/kg	100	95UCL	6.6E+04	--	2E-03	--
24708 PANAMA AVE	TPH as Motor Oil	mg/kg	7508	95UCL	2.9E+05	--	3E-02	--
24708 PANAMA AVE	Xylenes, Total	µg/kg	41	Max	4.9E+07	--	8E-07	--
24709 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	3074	95UCL	7.2E+06	--	4E-04	--
24709 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	155.2	95UCL	7.4E+06	--	2E-05	--
24709 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	13.31	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24709 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	19.48	95UCL	2.0E+04	--	1E-03	--
24709 NEPTUNE AVE	Benzene	µg/kg	247.7	95UCL	5.8E+06	1.9E+04	4E-05	1E-08
24709 NEPTUNE AVE	Ethylbenzene	µg/kg	3489	95UCL	2.9E+08	4.2E+05	1E-05	8E-09
24709 NEPTUNE AVE	Naphthalene	mg/kg	6.908	95UCL	1.3E+04	3.5E+02	5E-04	2E-08
24709 NEPTUNE AVE	Pyrene	mg/kg	4.061	95UCL	1.5E+05	--	3E-05	--
24709 NEPTUNE AVE	Toluene	µg/kg	24	Max	4.2E+08	--	6E-08	--
24709 NEPTUNE AVE	TPH as Diesel	mg/kg	13841	95UCL	1.1E+05	--	1E-01	--
24709 NEPTUNE AVE	TPH as Gasoline	mg/kg	734	95UCL	6.6E+04	--	1E-02	--
24709 NEPTUNE AVE	TPH as Motor Oil	mg/kg	12435	95UCL	2.9E+05	--	4E-02	--
24709 NEPTUNE AVE	Xylenes, Total	µg/kg	725.4	95UCL	4.9E+07	--	2E-05	--
24709 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2757	95UCL	7.2E+06	--	4E-04	--
24709 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	1036	95UCL	7.4E+06	--	1E-04	--
24709 PANAMA AVE	1-Methylnaphthalene	mg/kg	13.63	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24709 PANAMA AVE	2-Methylnaphthalene	mg/kg	15.41	95UCL	2.0E+04	--	8E-04	--
24709 PANAMA AVE	Benzene	µg/kg	88.95	95UCL	5.8E+06	1.9E+04	2E-05	5E-09
24709 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.64	Max	2.1E+04	1.1E+02	3E-05	6E-09
24709 PANAMA AVE	Ethylbenzene	µg/kg	428	95UCL	2.9E+08	4.2E+05	2E-06	1E-09
24709 PANAMA AVE	Naphthalene	mg/kg	2.513	95UCL	1.3E+04	3.5E+02	2E-04	7E-09
24709 PANAMA AVE	Pyrene	mg/kg	11.03	95UCL	1.5E+05	--	7E-05	--
24709 PANAMA AVE	Toluene	µg/kg	110.1	95UCL	4.2E+08	--	3E-07	--
24709 PANAMA AVE	TPH as Diesel	mg/kg	19005	95UCL	1.1E+05	--	2E-01	--
24709 PANAMA AVE	TPH as Gasoline	mg/kg	147.6	95UCL	6.6E+04	--	2E-03	--
24709 PANAMA AVE	TPH as Motor Oil	mg/kg	28579	95UCL	2.9E+05	--	1E-01	--
24709 PANAMA AVE	Xylenes, Total	µg/kg	1926	95UCL	4.9E+07	--	4E-05	--
24709 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	8950	95UCL	7.2E+06	--	1E-03	--
24709 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1810	95UCL	7.4E+06	--	2E-04	--
24709 RAVENNA AVE	1-Methylnaphthalene	mg/kg	26.54	95UCL	3.5E+05	1.4E+03	8E-05	2E-08
24709 RAVENNA AVE	2-Methylnaphthalene	mg/kg	38.63	95UCL	2.0E+04	--	2E-03	--
24709 RAVENNA AVE	Benzene	µg/kg	304.1	95UCL	5.8E+06	1.9E+04	5E-05	2E-08
24709 RAVENNA AVE	Bromomethane	µg/kg	370	Max	7.7E+05	--	5E-04	--
24709 RAVENNA AVE	Ethylbenzene	µg/kg	2986	95UCL	2.9E+08	4.2E+05	1E-05	7E-09
24709 RAVENNA AVE	Naphthalene	mg/kg	12.6	95UCL	1.3E+04	3.5E+02	1E-03	4E-08

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24709 RAVENNA AVE	Pyrene	mg/kg	11.59	95UCL	1.5E+05	--	8E-05	--
24709 RAVENNA AVE	Toluene	µg/kg	29	Max	4.2E+08	--	7E-08	--
24709 RAVENNA AVE	TPH as Diesel	mg/kg	11771	95UCL	1.1E+05	--	1E-01	--
24709 RAVENNA AVE	TPH as Gasoline	mg/kg	686.4	95UCL	6.6E+04	--	1E-02	--
24709 RAVENNA AVE	TPH as Motor Oil	mg/kg	11799	95UCL	2.9E+05	--	4E-02	--
24709 RAVENNA AVE	Xylenes, Total	µg/kg	6473	95UCL	4.9E+07	--	1E-04	--
24710 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	17645	95UCL	7.2E+06	--	2E-03	--
24710 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	10000	Max	7.4E+06	--	1E-03	--
24710 MARBELLA AVE	1-Methylnaphthalene	mg/kg	71	95UCL	3.5E+05	1.4E+03	2E-04	5E-08
24710 MARBELLA AVE	2-Methylnaphthalene	mg/kg	120	95UCL	2.0E+04	--	6E-03	--
24710 MARBELLA AVE	Benzene	µg/kg	22000	Max	5.8E+06	1.9E+04	4E-03	1E-06
24710 MARBELLA AVE	Cobalt	mg/kg	7.479	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
24710 MARBELLA AVE	Ethylbenzene	µg/kg	12533	95UCL	2.9E+08	4.2E+05	4E-05	3E-08
24710 MARBELLA AVE	Naphthalene	mg/kg	46	95UCL	1.3E+04	3.5E+02	4E-03	1E-07
24710 MARBELLA AVE	Pyrene	mg/kg	4.669	95UCL	1.5E+05	--	3E-05	--
24710 MARBELLA AVE	TPH as Diesel	mg/kg	12062	95UCL	1.1E+05	--	1E-01	--
24710 MARBELLA AVE	TPH as Gasoline	mg/kg	4900	95UCL	6.6E+04	--	7E-02	--
24710 MARBELLA AVE	TPH as Motor Oil	mg/kg	10541	95UCL	2.9E+05	--	4E-02	--
24710 MARBELLA AVE	Xylenes, Total	µg/kg	19541	95UCL	4.9E+07	--	4E-04	--
24712 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	2100	Max	7.2E+06	--	3E-04	--
24712 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	320	Max	7.4E+06	--	4E-05	--
24712 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	33	Max	3.5E+05	1.4E+03	9E-05	2E-08
24712 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	51	Max	2.0E+04	--	3E-03	--
24712 NEPTUNE AVE	Benzene	µg/kg	78	Max	5.8E+06	1.9E+04	1E-05	4E-09
24712 NEPTUNE AVE	Ethylbenzene	µg/kg	3600	Max	2.9E+08	4.2E+05	1E-05	9E-09
24712 NEPTUNE AVE	Naphthalene	mg/kg	21	Max	1.3E+04	3.5E+02	2E-03	6E-08
24712 NEPTUNE AVE	Pyrene	mg/kg	5.6	Max	1.5E+05	--	4E-05	--
24712 NEPTUNE AVE	Toluene	µg/kg	0.69	Max	4.2E+08	--	2E-09	--
24712 NEPTUNE AVE	TPH as Diesel	mg/kg	13000	Max	1.1E+05	--	1E-01	--
24712 NEPTUNE AVE	TPH as Gasoline	mg/kg	1400	Max	6.6E+04	--	2E-02	--
24712 NEPTUNE AVE	TPH as Motor Oil	mg/kg	13000	Max	2.9E+05	--	5E-02	--
24712 NEPTUNE AVE	Xylenes, Total	µg/kg	760	Max	4.9E+07	--	2E-05	--
24712 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	44	Max	7.2E+06	--	6E-06	--
24712 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	11	Max	7.4E+06	--	2E-06	--
24712 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.3	Max	3.5E+05	1.4E+03	9E-07	2E-10
24712 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.63	Max	2.0E+04	--	3E-05	--
24712 PANAMA AVE	Benzene	µg/kg	0.56	Max	5.8E+06	1.9E+04	1E-07	3E-11
24712 PANAMA AVE	Bromomethane	µg/kg	3.7	Max	7.7E+05	--	5E-06	--
24712 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.33	Max	2.1E+04	1.1E+02	2E-05	3E-09
24712 PANAMA AVE	Ethylbenzene	µg/kg	3.3	Max	2.9E+08	4.2E+05	1E-08	8E-12
24712 PANAMA AVE	Naphthalene	mg/kg	0.41	Max	1.3E+04	3.5E+02	3E-05	1E-09
24712 PANAMA AVE	Pyrene	mg/kg	3.1	Max	1.5E+05	--	2E-05	--
24712 PANAMA AVE	Toluene	µg/kg	0.62	Max	4.2E+08	--	2E-09	--
24712 PANAMA AVE	TPH as Diesel	mg/kg	2400	Max	1.1E+05	--	2E-02	--
24712 PANAMA AVE	TPH as Gasoline	mg/kg	55	Max	6.6E+04	--	8E-04	--
24712 PANAMA AVE	TPH as Motor Oil	mg/kg	4100	Max	2.9E+05	--	1E-02	--
24712 PANAMA AVE	Xylenes, Total	µg/kg	10	Max	4.9E+07	--	2E-07	--
24712 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	5.2	Max	7.2E+06	--	7E-07	--
24712 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1.8	Max	7.4E+06	--	2E-07	--
24712 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.00664	95UCL	3.5E+05	1.4E+03	2E-08	5E-12
24712 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0104	95UCL	2.0E+04	--	5E-07	--
24712 RAVENNA AVE	Benzene	µg/kg	0.31	Max	5.8E+06	1.9E+04	5E-08	2E-11
24712 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.31	Max	1.1E+05	3.0E+03	3E-06	1E-10
24712 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.11	Max	2.1E+04	1.1E+02	5E-06	1E-09
24712 RAVENNA AVE	Ethylbenzene	µg/kg	0.66	Max	2.9E+08	4.2E+05	2E-09	2E-12
24712 RAVENNA AVE	Naphthalene	mg/kg	0.00565	95UCL	1.3E+04	3.5E+02	4E-07	2E-11
24712 RAVENNA AVE	Pyrene	mg/kg	0.154	95UCL	1.5E+05	--	1E-06	--
24712 RAVENNA AVE	Toluene	µg/kg	0.59	Max	4.2E+08	--	1E-09	--
24712 RAVENNA AVE	TPH as Diesel	mg/kg	181.9	95UCL	1.1E+05	--	2E-03	--
24712 RAVENNA AVE	TPH as Gasoline	mg/kg	0.239	95UCL	6.6E+04	--	4E-06	--
24712 RAVENNA AVE	TPH as Motor Oil	mg/kg	471.9	95UCL	2.9E+05	--	2E-03	--
24712 RAVENNA AVE	Xylenes, Total	µg/kg	3.4	Max	4.9E+07	--	7E-08	--

Appendix E
Detailed Risk Calculations

Table E-3
CO-C Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24713 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.22	Max	7.2E+06	--	3E-08	--
24713 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0204	95UCL	3.5E+05	1.4E+03	6E-08	2E-11
24713 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0953	95UCL	2.0E+04	--	5E-06	--
24713 MARBELLA AVE	Cobalt	mg/kg	6.616	95UCL	2.1E+03	2.7E+06	3E-03	2E-12
24713 MARBELLA AVE	Naphthalene	mg/kg	0.631	95UCL	1.3E+04	3.5E+02	5E-05	2E-09
24713 MARBELLA AVE	Pyrene	mg/kg	0.0149	95UCL	1.5E+05	--	1E-07	--
24713 MARBELLA AVE	Toluene	µg/kg	0.13	Max	4.2E+08	--	3E-10	--
24713 MARBELLA AVE	TPH as Diesel	mg/kg	5.3	Max	1.1E+05	--	5E-05	--
24713 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	17.93	95UCL	7.2E+06	--	3E-06	--
24713 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	3.343	95UCL	7.4E+06	--	5E-07	--
24713 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.275	95UCL	3.5E+05	1.4E+03	8E-07	2E-10
24713 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.301	95UCL	2.0E+04	--	2E-05	--
24713 PANAMA AVE	Benzene	µg/kg	25.18	95UCL	5.8E+06	1.9E+04	4E-06	1E-09
24713 PANAMA AVE	Bromomethane	µg/kg	3.7	Max	7.7E+05	--	5E-06	--
24713 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.9	Max	2.1E+04	1.1E+02	4E-05	8E-09
24713 PANAMA AVE	Ethylbenzene	µg/kg	30	Max	2.9E+08	4.2E+05	1E-07	7E-11
24713 PANAMA AVE	Methylene Chloride	µg/kg	11	Max	3.2E+07	4.7E+05	4E-07	2E-11
24713 PANAMA AVE	Naphthalene	mg/kg	0.0792	95UCL	1.3E+04	3.5E+02	6E-06	2E-10
24713 PANAMA AVE	Pyrene	mg/kg	4.243	95UCL	1.5E+05	--	3E-05	--
24713 PANAMA AVE	Toluene	µg/kg	0.561	95UCL	4.2E+08	--	1E-09	--
24713 PANAMA AVE	TPH as Diesel	mg/kg	9344	95UCL	1.1E+05	--	9E-02	--
24713 PANAMA AVE	TPH as Gasoline	mg/kg	0.462	95UCL	6.6E+04	--	7E-06	--
24713 PANAMA AVE	TPH as Motor Oil	mg/kg	23829	95UCL	2.9E+05	--	8E-02	--
24713 PANAMA AVE	Xylenes, Total	µg/kg	44.63	95UCL	4.9E+07	--	9E-07	--
24713 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2200	95UCL	7.2E+06	--	3E-04	--
24713 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	290.6	95UCL	7.4E+06	--	4E-05	--
24713 RAVENNA AVE	1-Methylnaphthalene	mg/kg	11.56	95UCL	3.5E+05	1.4E+03	3E-05	9E-09
24713 RAVENNA AVE	2-Methylnaphthalene	mg/kg	15.37	95UCL	2.0E+04	--	8E-04	--
24713 RAVENNA AVE	Benzene	µg/kg	450	Max	5.8E+06	1.9E+04	8E-05	2E-08
24713 RAVENNA AVE	Ethylbenzene	µg/kg	2138	95UCL	2.9E+08	4.2E+05	8E-06	5E-09
24713 RAVENNA AVE	Naphthalene	mg/kg	8.854	95UCL	1.3E+04	3.5E+02	7E-04	3E-08
24713 RAVENNA AVE	Pyrene	mg/kg	6.176	95UCL	1.5E+05	--	4E-05	--
24713 RAVENNA AVE	Toluene	µg/kg	43	Max	4.2E+08	--	1E-07	--
24713 RAVENNA AVE	TPH as Diesel	mg/kg	8864	95UCL	1.1E+05	--	8E-02	--
24713 RAVENNA AVE	TPH as Gasoline	mg/kg	813.7	95UCL	6.6E+04	--	1E-02	--
24713 RAVENNA AVE	TPH as Motor Oil	mg/kg	9722	95UCL	2.9E+05	--	3E-02	--
24713 RAVENNA AVE	Xylenes, Total	µg/kg	867.5	95UCL	4.9E+07	--	2E-05	--
24715 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	14047	95UCL	7.2E+06	--	2E-03	--
24715 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	4034	95UCL	7.4E+06	--	5E-04	--
24715 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	23.96	95UCL	3.5E+05	1.4E+03	7E-05	2E-08
24715 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	33.59	95UCL	2.0E+04	--	2E-03	--
24715 NEPTUNE AVE	Benzene	µg/kg	2975	95UCL	5.8E+06	1.9E+04	5E-04	2E-07
24715 NEPTUNE AVE	Benzo (a) Anthracene	mg/kg	1.061	95UCL	--	1.4E+02	--	8E-09
24715 NEPTUNE AVE	Benzo (a) Pyrene	mg/kg	0.68	95UCL	--	1.4E+01	--	5E-08
24715 NEPTUNE AVE	Benzo (b) Fluoranthene	mg/kg	0.293	95UCL	--	1.4E+02	--	2E-09
24715 NEPTUNE AVE	Benzo (k) Fluoranthene	mg/kg	0.42	Max	--	1.4E+02	--	3E-09
24715 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.33	Max	2.1E+04	1.1E+02	2E-05	3E-09
24715 NEPTUNE AVE	Chrysene	mg/kg	2.51	95UCL	--	1.4E+03	--	2E-09
24715 NEPTUNE AVE	Dibenz (a,h) Anthracene	mg/kg	0.22	Max	--	9.7E+00	--	2E-08
24715 NEPTUNE AVE	Ethylbenzene	µg/kg	5916	95UCL	2.9E+08	4.2E+05	2E-05	1E-08
24715 NEPTUNE AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.013	Max	--	1.4E+02	--	1E-10
24715 NEPTUNE AVE	Naphthalene	mg/kg	20.72	95UCL	1.3E+04	3.5E+02	2E-03	6E-08
24715 NEPTUNE AVE	Pyrene	mg/kg	5.913	95UCL	1.5E+05	--	4E-05	--
24715 NEPTUNE AVE	Toluene	µg/kg	93.09	95UCL	4.2E+08	--	2E-07	--
24715 NEPTUNE AVE	TPH as Diesel	mg/kg	13423	95UCL	1.1E+05	--	1E-01	--
24715 NEPTUNE AVE	TPH as Gasoline	mg/kg	1757	95UCL	6.6E+04	--	3E-02	--
24715 NEPTUNE AVE	TPH as Motor Oil	mg/kg	14792	95UCL	2.9E+05	--	5E-02	--
24715 NEPTUNE AVE	Xylenes, Total	µg/kg	11505	95UCL	4.9E+07	--	2E-04	--
24716 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	7300	Max	7.2E+06	--	1E-03	--
24716 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	3000	Max	7.4E+06	--	4E-04	--
24716 MARBELLA AVE	1-Methylnaphthalene	mg/kg	43	Max	3.5E+05	1.4E+03	1E-04	3E-08
24716 MARBELLA AVE	2-Methylnaphthalene	mg/kg	71	Max	2.0E+04	--	4E-03	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24716 MARBELLA AVE	Benzene	µg/kg	1100	Max	5.8E+06	1.9E+04	2E-04	6E-08
24716 MARBELLA AVE	Cobalt	mg/kg	9.09	Max	2.1E+03	2.7E+06	4E-03	3E-12
24716 MARBELLA AVE	Ethylbenzene	µg/kg	16000	Max	2.9E+08	4.2E+05	6E-05	4E-08
24716 MARBELLA AVE	Naphthalene	mg/kg	27	Max	1.3E+04	3.5E+02	2E-03	8E-08
24716 MARBELLA AVE	Pyrene	mg/kg	6.2	Max	1.5E+05	--	4E-05	--
24716 MARBELLA AVE	Toluene	µg/kg	0.31	Max	4.2E+08	--	7E-10	--
24716 MARBELLA AVE	TPH as Diesel	mg/kg	17000	Max	1.1E+05	--	2E-01	--
24716 MARBELLA AVE	TPH as Gasoline	mg/kg	3400	Max	6.6E+04	--	5E-02	--
24716 MARBELLA AVE	TPH as Motor Oil	mg/kg	14000	Max	2.9E+05	--	5E-02	--
24716 MARBELLA AVE	Xylenes, Total	µg/kg	6600	Max	4.9E+07	--	1E-04	--
24716 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.82	Max	7.2E+06	--	1E-07	--
24716 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.38	Max	7.4E+06	--	5E-08	--
24716 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0097	Max	3.5E+05	1.4E+03	3E-08	7E-12
24716 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0055	Max	2.0E+04	--	3E-07	--
24716 RAVENNA AVE	Benzene	µg/kg	0.23	Max	5.8E+06	1.9E+04	4E-08	1E-11
24716 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.26	Max	2.1E+04	1.1E+02	1E-05	2E-09
24716 RAVENNA AVE	Ethylbenzene	µg/kg	0.13	Max	2.9E+08	4.2E+05	5E-10	3E-13
24716 RAVENNA AVE	Naphthalene	mg/kg	0.0036	Max	1.3E+04	3.5E+02	3E-07	1E-11
24716 RAVENNA AVE	Pyrene	mg/kg	0.013	Max	1.5E+05	--	9E-08	--
24716 RAVENNA AVE	Toluene	µg/kg	0.14	Max	4.2E+08	--	3E-10	--
24716 RAVENNA AVE	TPH as Diesel	mg/kg	20	Max	1.1E+05	--	2E-04	--
24716 RAVENNA AVE	TPH as Gasoline	mg/kg	0.19	Max	6.6E+04	--	3E-06	--
24716 RAVENNA AVE	TPH as Motor Oil	mg/kg	34	Max	2.9E+05	--	1E-04	--
24716 RAVENNA AVE	Xylenes, Total	µg/kg	0.81	Max	4.9E+07	--	2E-08	--
24717 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	6.9	Max	7.2E+06	--	1E-06	--
24717 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	2.3	Max	7.4E+06	--	3E-07	--
24717 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0724	95UCL	3.5E+05	1.4E+03	2E-07	5E-11
24717 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0515	95UCL	2.0E+04	--	3E-06	--
24717 MARBELLA AVE	Benzene	µg/kg	0.44	Max	5.8E+06	1.9E+04	8E-08	2E-11
24717 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.1E+04	1.1E+02	1E-05	2E-09
24717 MARBELLA AVE	Cobalt	mg/kg	14.22	95UCL	2.1E+03	2.7E+06	7E-03	5E-12
24717 MARBELLA AVE	Ethylbenzene	µg/kg	31	Max	2.9E+08	4.2E+05	1E-07	7E-11
24717 MARBELLA AVE	Naphthalene	mg/kg	0.0995	95UCL	1.3E+04	3.5E+02	8E-06	3E-10
24717 MARBELLA AVE	Pyrene	mg/kg	0.0973	95UCL	1.5E+05	--	7E-07	--
24717 MARBELLA AVE	Toluene	µg/kg	0.25	Max	4.2E+08	--	6E-10	--
24717 MARBELLA AVE	TPH as Diesel	mg/kg	52	Max	1.1E+05	--	5E-04	--
24717 MARBELLA AVE	TPH as Gasoline	mg/kg	52	Max	6.6E+04	--	8E-04	--
24717 MARBELLA AVE	TPH as Motor Oil	mg/kg	60	Max	2.9E+05	--	2E-04	--
24717 MARBELLA AVE	Xylenes, Total	µg/kg	5.6	Max	4.9E+07	--	1E-07	--
24718 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	507.7	95UCL	7.2E+06	--	7E-05	--
24718 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	149	95UCL	7.4E+06	--	2E-05	--
24718 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	15.35	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24718 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	20.07	95UCL	2.0E+04	--	1E-03	--
24718 NEPTUNE AVE	Antimony	mg/kg	0.399	95UCL	2.7E+03	--	2E-04	--
24718 NEPTUNE AVE	Benzene	µg/kg	48	Max	5.8E+06	1.9E+04	8E-06	3E-09
24718 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.22	Max	2.1E+04	1.1E+02	1E-05	2E-09
24718 NEPTUNE AVE	Ethylbenzene	µg/kg	8306	95UCL	2.9E+08	4.2E+05	3E-05	2E-08
24718 NEPTUNE AVE	Naphthalene	mg/kg	9.052	95UCL	1.3E+04	3.5E+02	7E-04	3E-08
24718 NEPTUNE AVE	Pyrene	mg/kg	0.477	95UCL	1.5E+05	--	3E-06	--
24718 NEPTUNE AVE	Toluene	µg/kg	15	Max	4.2E+08	--	4E-08	--
24718 NEPTUNE AVE	TPH as Diesel	mg/kg	8435	95UCL	1.1E+05	--	8E-02	--
24718 NEPTUNE AVE	TPH as Gasoline	mg/kg	1102	95UCL	6.6E+04	--	2E-02	--
24718 NEPTUNE AVE	TPH as Motor Oil	mg/kg	9706	95UCL	2.9E+05	--	3E-02	--
24718 NEPTUNE AVE	Xylenes, Total	µg/kg	623.5	95UCL	4.9E+07	--	1E-05	--
24718 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	0.85	Max	2.1E+05	1.9E+03	4E-06	5E-10
24718 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.6	Max	7.2E+06	--	8E-08	--
24718 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.24	Max	7.4E+06	--	3E-08	--
24718 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.032	Max	3.5E+05	1.4E+03	9E-08	2E-11
24718 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.046	Max	2.0E+04	--	2E-06	--
24718 PANAMA AVE	Benzene	µg/kg	1.9	Max	5.8E+06	1.9E+04	3E-07	1E-10
24718 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	2.1E+04	1.1E+02	2E-05	3E-09
24718 PANAMA AVE	Ethylbenzene	µg/kg	0.23	Max	2.9E+08	4.2E+05	8E-10	6E-13

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24718 PANAMA AVE	Naphthalene	mg/kg	0.015	Max	1.3E+04	3.5E+02	1E-06	4E-11
24718 PANAMA AVE	Pyrene	mg/kg	0.23	Max	1.5E+05	--	2E-06	--
24718 PANAMA AVE	Toluene	µg/kg	0.78	Max	4.2E+08	--	2E-09	--
24718 PANAMA AVE	TPH as Diesel	mg/kg	260	Max	1.1E+05	--	2E-03	--
24718 PANAMA AVE	TPH as Gasoline	mg/kg	0.52	Max	6.6E+04	--	8E-06	--
24718 PANAMA AVE	TPH as Motor Oil	mg/kg	520	Max	2.9E+05	--	2E-03	--
24718 PANAMA AVE	Xylenes, Total	µg/kg	0.52	Max	4.9E+07	--	1E-08	--
24719 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	12000	Max	7.2E+06	--	2E-03	--
24719 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	320	Max	7.4E+06	--	4E-05	--
24719 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	35	Max	3.5E+05	1.4E+03	1E-04	3E-08
24719 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	68	Max	2.0E+04	--	3E-03	--
24719 NEPTUNE AVE	Benzene	µg/kg	590	Max	5.8E+06	1.9E+04	1E-04	3E-08
24719 NEPTUNE AVE	Ethylbenzene	µg/kg	23000	Max	2.9E+08	4.2E+05	8E-05	6E-08
24719 NEPTUNE AVE	Naphthalene	mg/kg	28	Max	1.3E+04	3.5E+02	2E-03	8E-08
24719 NEPTUNE AVE	Pyrene	mg/kg	2.5	Max	1.5E+05	--	2E-05	--
24719 NEPTUNE AVE	Toluene	µg/kg	0.83	Max	4.2E+08	--	2E-09	--
24719 NEPTUNE AVE	TPH as Diesel	mg/kg	24000	Max	1.1E+05	--	2E-01	--
24719 NEPTUNE AVE	TPH as Gasoline	mg/kg	3400	Max	6.6E+04	--	5E-02	--
24719 NEPTUNE AVE	TPH as Motor Oil	mg/kg	24000	Max	2.9E+05	--	8E-02	--
24719 NEPTUNE AVE	Xylenes, Total	µg/kg	1700	Max	4.9E+07	--	4E-05	--
24719 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.668	95UCL	7.2E+06	--	9E-08	--
24719 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.238	95UCL	7.4E+06	--	3E-08	--
24719 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.034	Max	3.5E+05	1.4E+03	1E-07	3E-11
24719 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.715	95UCL	2.0E+04	--	4E-05	--
24719 PANAMA AVE	Benzene	µg/kg	0.805	95UCL	5.8E+06	1.9E+04	1E-07	4E-11
24719 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.51	Max	2.1E+04	1.1E+02	3E-05	5E-09
24719 PANAMA AVE	Ethylbenzene	µg/kg	2.4	Max	2.9E+08	4.2E+05	8E-09	6E-12
24719 PANAMA AVE	Naphthalene	mg/kg	0.02	Max	1.3E+04	3.5E+02	2E-06	6E-11
24719 PANAMA AVE	Pyrene	mg/kg	3.1	95UCL	1.5E+05	--	2E-05	--
24719 PANAMA AVE	Toluene	µg/kg	0.268	95UCL	4.2E+08	--	6E-10	--
24719 PANAMA AVE	TPH as Diesel	mg/kg	12886	95UCL	1.1E+05	--	1E-01	--
24719 PANAMA AVE	TPH as Gasoline	mg/kg	0.14	Max	6.6E+04	--	2E-06	--
24719 PANAMA AVE	TPH as Motor Oil	mg/kg	18000	95UCL	2.9E+05	--	6E-02	--
24719 PANAMA AVE	Xylenes, Total	µg/kg	1.765	95UCL	4.9E+07	--	4E-08	--
24719 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	3260	95UCL	7.2E+06	--	5E-04	--
24719 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1205	95UCL	7.4E+06	--	2E-04	--
24719 RAVENNA AVE	1-Methylnaphthalene	mg/kg	24.4	95UCL	3.5E+05	1.4E+03	7E-05	2E-08
24719 RAVENNA AVE	2-Methylnaphthalene	mg/kg	51.64	95UCL	2.0E+04	--	3E-03	--
24719 RAVENNA AVE	Benzene	µg/kg	656	95UCL	5.8E+06	1.9E+04	1E-04	3E-08
24719 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.19	Max	1.1E+05	3.0E+03	2E-06	6E-11
24719 RAVENNA AVE	Bromomethane	µg/kg	1300	Max	7.7E+05	--	2E-03	--
24719 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.64	Max	2.1E+04	1.1E+02	3E-05	6E-09
24719 RAVENNA AVE	Ethylbenzene	µg/kg	6450	95UCL	2.9E+08	4.2E+05	2E-05	2E-08
24719 RAVENNA AVE	Naphthalene	mg/kg	19	95UCL	1.3E+04	3.5E+02	1E-03	6E-08
24719 RAVENNA AVE	Pyrene	mg/kg	4.599	95UCL	1.5E+05	--	3E-05	--
24719 RAVENNA AVE	Toluene	µg/kg	560.6	95UCL	4.2E+08	--	1E-06	--
24719 RAVENNA AVE	TPH as Diesel	mg/kg	13700	95UCL	1.1E+05	--	1E-01	--
24719 RAVENNA AVE	TPH as Gasoline	mg/kg	963	95UCL	6.6E+04	--	2E-02	--
24719 RAVENNA AVE	TPH as Motor Oil	mg/kg	15000	95UCL	2.9E+05	--	5E-02	--
24719 RAVENNA AVE	Xylenes, Total	µg/kg	3760	95UCL	4.9E+07	--	8E-05	--
24722 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.009	Max	3.5E+05	1.4E+03	3E-08	7E-12
24722 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0061	Max	2.0E+04	--	3E-07	--
24722 MARBELLA AVE	Benzene	µg/kg	2.9	Max	5.8E+06	1.9E+04	5E-07	2E-10
24722 MARBELLA AVE	Bromomethane	µg/kg	0.82	Max	7.7E+05	--	1E-06	--
24722 MARBELLA AVE	Ethylbenzene	µg/kg	0.41	Max	2.9E+08	4.2E+05	1E-09	1E-12
24722 MARBELLA AVE	Naphthalene	mg/kg	0.002	Max	1.3E+04	3.5E+02	2E-07	6E-12
24722 MARBELLA AVE	Pyrene	mg/kg	0.088	Max	1.5E+05	--	6E-07	--
24722 MARBELLA AVE	Toluene	µg/kg	0.42	Max	4.2E+08	--	1E-09	--
24722 MARBELLA AVE	TPH as Diesel	mg/kg	320	Max	1.1E+05	--	3E-03	--
24722 MARBELLA AVE	TPH as Gasoline	mg/kg	0.22	Max	6.6E+04	--	3E-06	--
24722 MARBELLA AVE	TPH as Motor Oil	mg/kg	630	Max	2.9E+05	--	2E-03	--
24722 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.026	Max	2.0E+04	--	1E-06	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24722 NEPTUNE AVE	Benzene	µg/kg	4	Max	5.8E+06	1.9E+04	7E-07	2E-10
24722 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.33	Max	2.1E+04	1.1E+02	2E-05	3E-09
24722 NEPTUNE AVE	Ethylbenzene	µg/kg	0.78	Max	2.9E+08	4.2E+05	3E-09	2E-12
24722 NEPTUNE AVE	Naphthalene	mg/kg	0.013	Max	1.3E+04	3.5E+02	1E-06	4E-11
24722 NEPTUNE AVE	Pyrene	mg/kg	0.0043	Max	1.5E+05	--	3E-08	--
24722 NEPTUNE AVE	Toluene	µg/kg	0.73	Max	4.2E+08	--	2E-09	--
24722 NEPTUNE AVE	TPH as Diesel	mg/kg	18	Max	1.1E+05	--	2E-04	--
24722 NEPTUNE AVE	TPH as Motor Oil	mg/kg	79	Max	2.9E+05	--	3E-04	--
24722 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0099	Max	3.5E+05	1.4E+03	3E-08	7E-12
24722 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.011	Max	2.0E+04	--	6E-07	--
24722 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.1E+04	1.1E+02	2E-05	3E-09
24722 PANAMA AVE	Naphthalene	mg/kg	0.0093	Max	1.3E+04	3.5E+02	7E-07	3E-11
24722 PANAMA AVE	Pyrene	mg/kg	0.021	Max	1.5E+05	--	1E-07	--
24722 PANAMA AVE	TPH as Diesel	mg/kg	480	Max	1.1E+05	--	4E-03	--
24722 PANAMA AVE	TPH as Gasoline	mg/kg	0.068	Max	6.6E+04	--	1E-06	--
24722 PANAMA AVE	TPH as Motor Oil	mg/kg	830	Max	2.9E+05	--	3E-03	--
24722 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	5.982	95UCL	7.2E+06	--	8E-07	--
24722 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1.099	95UCL	7.4E+06	--	2E-07	--
24722 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0456	95UCL	3.5E+05	1.4E+03	1E-07	3E-11
24722 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0331	95UCL	2.0E+04	--	2E-06	--
24722 RAVENNA AVE	Benzene	µg/kg	0.31	Max	5.8E+06	1.9E+04	5E-08	2E-11
24722 RAVENNA AVE	Bromomethane	µg/kg	0.91	Max	7.7E+05	--	1E-06	--
24722 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.311	95UCL	2.1E+04	1.1E+02	2E-05	3E-09
24722 RAVENNA AVE	Ethylbenzene	µg/kg	8.7	Max	2.9E+08	4.2E+05	3E-08	2E-11
24722 RAVENNA AVE	Naphthalene	mg/kg	0.0632	95UCL	1.3E+04	3.5E+02	5E-06	2E-10
24722 RAVENNA AVE	Pyrene	mg/kg	0.0607	95UCL	1.5E+05	--	4E-07	--
24722 RAVENNA AVE	Toluene	µg/kg	0.36	Max	4.2E+08	--	9E-10	--
24722 RAVENNA AVE	TPH as Diesel	mg/kg	342	95UCL	1.1E+05	--	3E-03	--
24722 RAVENNA AVE	TPH as Gasoline	mg/kg	0.476	95UCL	6.6E+04	--	7E-06	--
24722 RAVENNA AVE	TPH as Motor Oil	mg/kg	581.6	95UCL	2.9E+05	--	2E-03	--
24722 RAVENNA AVE	Xylenes, Total	µg/kg	2.002	95UCL	4.9E+07	--	4E-08	--
24723 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.73	Max	7.2E+06	--	1E-07	--
24723 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.15	Max	7.4E+06	--	2E-08	--
24723 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.24	Max	3.5E+05	1.4E+03	7E-07	2E-10
24723 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.31	Max	2.0E+04	--	2E-05	--
24723 MARBELLA AVE	Benzene	µg/kg	2.3	Max	5.8E+06	1.9E+04	4E-07	1E-10
24723 MARBELLA AVE	Bromomethane	µg/kg	2.1	Max	7.7E+05	--	3E-06	--
24723 MARBELLA AVE	Cobalt	mg/kg	7.83	Max	2.1E+03	2.7E+06	4E-03	3E-12
24723 MARBELLA AVE	Ethylbenzene	µg/kg	0.6	Max	2.9E+08	4.2E+05	2E-09	1E-12
24723 MARBELLA AVE	Naphthalene	mg/kg	0.048	Max	1.3E+04	3.5E+02	4E-06	1E-10
24723 MARBELLA AVE	Pyrene	mg/kg	0.028	Max	1.5E+05	--	2E-07	--
24723 MARBELLA AVE	Toluene	µg/kg	0.94	Max	4.2E+08	--	2E-09	--
24723 MARBELLA AVE	TPH as Gasoline	mg/kg	0.33	Max	6.6E+04	--	5E-06	--
24723 MARBELLA AVE	Xylenes, Total	µg/kg	2.3	Max	4.9E+07	--	5E-08	--
24723 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	17	Max	7.2E+06	--	2E-06	--
24723 RAVENNA AVE	1-Methylnaphthalene	mg/kg	4.788	95UCL	3.5E+05	1.4E+03	1E-05	4E-09
24723 RAVENNA AVE	2-Methylnaphthalene	mg/kg	7.859	95UCL	2.0E+04	--	4E-04	--
24723 RAVENNA AVE	Benzene	µg/kg	0.34	Max	5.8E+06	1.9E+04	6E-08	2E-11
24723 RAVENNA AVE	Ethylbenzene	µg/kg	3900	Max	2.9E+08	4.2E+05	1E-05	9E-09
24723 RAVENNA AVE	Naphthalene	mg/kg	3.18	95UCL	1.3E+04	3.5E+02	2E-04	9E-09
24723 RAVENNA AVE	Pyrene	mg/kg	0.246	95UCL	1.5E+05	--	2E-06	--
24723 RAVENNA AVE	Toluene	µg/kg	0.43	95UCL	4.2E+08	--	1E-09	--
24723 RAVENNA AVE	TPH as Diesel	mg/kg	4400	Max	1.1E+05	--	4E-02	--
24723 RAVENNA AVE	TPH as Gasoline	mg/kg	790	Max	6.6E+04	--	1E-02	--
24723 RAVENNA AVE	TPH as Motor Oil	mg/kg	3900	Max	2.9E+05	--	1E-02	--
24723 RAVENNA AVE	Xylenes, Total	µg/kg	100	Max	4.9E+07	--	2E-06	--
24725 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1.1	Max	7.2E+06	--	2E-07	--
24725 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0052	Max	3.5E+05	1.4E+03	2E-08	4E-12
24725 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	0.12	Max	1.1E+04	1.4E+02	1E-05	9E-10
24725 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0039	Max	2.0E+04	--	2E-07	--
24725 NEPTUNE AVE	Benzene	µg/kg	0.13	Max	5.8E+06	1.9E+04	2E-08	7E-12
24725 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.322	95UCL	2.1E+04	1.1E+02	2E-05	3E-09

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24725 NEPTUNE AVE	Naphthalene	mg/kg	0.0073	Max	1.3E+04	3.5E+02	6E-07	2E-11
24725 NEPTUNE AVE	Pyrene	mg/kg	0.33	Max	1.5E+05	--	2E-06	--
24725 NEPTUNE AVE	Toluene	µg/kg	0.13	Max	4.2E+08	--	3E-10	--
24725 NEPTUNE AVE	TPH as Diesel	mg/kg	28	Max	1.1E+05	--	3E-04	--
24725 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.2	Max	6.6E+04	--	3E-06	--
24725 NEPTUNE AVE	TPH as Motor Oil	mg/kg	57	Max	2.9E+05	--	2E-04	--
24726 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	11	Max	7.2E+06	--	2E-06	--
24726 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1.2	Max	7.4E+06	--	2E-07	--
24726 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0021	Max	3.5E+05	1.4E+03	6E-09	2E-12
24726 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0029	Max	2.0E+04	--	1E-07	--
24726 MARBELLA AVE	Benzene	µg/kg	3.236	95UCL	5.8E+06	1.9E+04	6E-07	2E-10
24726 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.35	Max	2.1E+04	1.1E+02	2E-05	3E-09
24726 MARBELLA AVE	Cobalt	mg/kg	7.601	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
24726 MARBELLA AVE	Ethylbenzene	µg/kg	1.262	95UCL	2.9E+08	4.2E+05	4E-09	3E-12
24726 MARBELLA AVE	Naphthalene	mg/kg	0.012	Max	1.3E+04	3.5E+02	9E-07	4E-11
24726 MARBELLA AVE	Pyrene	mg/kg	0.00176	95UCL	1.5E+05	--	1E-08	--
24726 MARBELLA AVE	Toluene	µg/kg	0.605	95UCL	4.2E+08	--	1E-09	--
24726 MARBELLA AVE	TPH as Diesel	mg/kg	15	Max	1.1E+05	--	1E-04	--
24726 MARBELLA AVE	TPH as Gasoline	mg/kg	0.892	95UCL	6.6E+04	--	1E-05	--
24726 MARBELLA AVE	TPH as Motor Oil	mg/kg	18	Max	2.9E+05	--	6E-05	--
24726 MARBELLA AVE	Xylenes, Total	µg/kg	3	Max	4.9E+07	--	6E-08	--
24726 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.14	Max	7.2E+06	--	2E-08	--
24726 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0102	95UCL	2.0E+04	--	5E-07	--
24726 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	1.1E+05	3.0E+03	2E-06	6E-11
24726 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.31	Max	2.1E+04	1.1E+02	2E-05	3E-09
24726 RAVENNA AVE	Naphthalene	mg/kg	0.0069	Max	1.3E+04	3.5E+02	5E-07	2E-11
24726 RAVENNA AVE	Pyrene	mg/kg	0.0201	95UCL	1.5E+05	--	1E-07	--
24726 RAVENNA AVE	TPH as Diesel	mg/kg	35	Max	1.1E+05	--	3E-04	--
24726 RAVENNA AVE	TPH as Motor Oil	mg/kg	85	Max	2.9E+05	--	3E-04	--
24726 RAVENNA AVE	Trichloroethene	µg/kg	0.43	Max	5.0E+05	1.0E+05	9E-07	4E-12
24727 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	16	Max	7.2E+06	--	2E-06	--
24727 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1.7	Max	7.4E+06	--	2E-07	--
24727 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.12	Max	3.5E+05	1.4E+03	3E-07	9E-11
24727 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0959	95UCL	2.0E+04	--	5E-06	--
24727 MARBELLA AVE	Benzene	µg/kg	2.76	95UCL	5.8E+06	1.9E+04	5E-07	1E-10
24727 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	2.1E+04	1.1E+02	1E-05	2E-09
24727 MARBELLA AVE	Ethylbenzene	µg/kg	1.5	Max	2.9E+08	4.2E+05	5E-09	4E-12
24727 MARBELLA AVE	Naphthalene	mg/kg	0.083	Max	1.3E+04	3.5E+02	6E-06	2E-10
24727 MARBELLA AVE	Pyrene	mg/kg	0.564	95UCL	1.5E+05	--	4E-06	--
24727 MARBELLA AVE	Toluene	µg/kg	0.481	95UCL	4.2E+08	--	1E-09	--
24727 MARBELLA AVE	TPH as Diesel	mg/kg	20.9	95UCL	1.1E+05	--	2E-04	--
24727 MARBELLA AVE	TPH as Gasoline	mg/kg	2.1	Max	6.6E+04	--	3E-05	--
24727 MARBELLA AVE	TPH as Motor Oil	mg/kg	63.22	95UCL	2.9E+05	--	2E-04	--
24728 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	33	Max	7.2E+06	--	5E-06	--
24728 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	11	Max	7.4E+06	--	2E-06	--
24728 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.86	Max	3.5E+05	1.4E+03	2E-06	6E-10
24728 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	1.2	Max	2.0E+04	--	6E-05	--
24728 NEPTUNE AVE	Benzene	µg/kg	181.4	95UCL	5.8E+06	1.9E+04	3E-05	9E-09
24728 NEPTUNE AVE	Bromomethane	µg/kg	2.8	Max	7.7E+05	--	4E-06	--
24728 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.4	Max	2.1E+04	1.1E+02	2E-05	4E-09
24728 NEPTUNE AVE	Ethylbenzene	µg/kg	2000	Max	2.9E+08	4.2E+05	7E-06	5E-09
24728 NEPTUNE AVE	Naphthalene	mg/kg	2.8	Max	1.3E+04	3.5E+02	2E-04	8E-09
24728 NEPTUNE AVE	Pyrene	mg/kg	0.032	Max	1.5E+05	--	2E-07	--
24728 NEPTUNE AVE	Toluene	µg/kg	0.34	95UCL	4.2E+08	--	8E-10	--
24728 NEPTUNE AVE	TPH as Diesel	mg/kg	680	Max	1.1E+05	--	6E-03	--
24728 NEPTUNE AVE	TPH as Gasoline	mg/kg	520	Max	6.6E+04	--	8E-03	--
24728 NEPTUNE AVE	TPH as Motor Oil	mg/kg	840	Max	2.9E+05	--	3E-03	--
24728 NEPTUNE AVE	Xylenes, Total	µg/kg	0.28	Max	4.9E+07	--	6E-09	--
24728 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.16	Max	7.2E+06	--	2E-08	--
24728 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.04	Max	3.5E+05	1.4E+03	1E-07	3E-11
24728 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.056	Max	2.0E+04	--	3E-06	--
24728 PANAMA AVE	Benzene	µg/kg	0.18	Max	5.8E+06	1.9E+04	3E-08	9E-12

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24728 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	2.1E+04	1.1E+02	1E-05	2E-09
24728 PANAMA AVE	Naphthalene	mg/kg	0.013	Max	1.3E+04	3.5E+02	1E-06	4E-11
24728 PANAMA AVE	Pyrene	mg/kg	0.21	Max	1.5E+05	--	1E-06	--
24728 PANAMA AVE	Toluene	µg/kg	0.67	Max	4.2E+08	--	2E-09	--
24728 PANAMA AVE	TPH as Diesel	mg/kg	1500	Max	1.1E+05	--	1E-02	--
24728 PANAMA AVE	TPH as Gasoline	mg/kg	0.15	Max	6.6E+04	--	2E-06	--
24728 PANAMA AVE	TPH as Motor Oil	mg/kg	2200	Max	2.9E+05	--	8E-03	--
24729 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.26	Max	7.2E+06	--	4E-08	--
24729 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.002	Max	2.0E+04	--	1E-07	--
24729 NEPTUNE AVE	Benzene	µg/kg	0.15	Max	5.8E+06	1.9E+04	3E-08	8E-12
24729 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.484	95UCL	2.1E+04	1.1E+02	2E-05	4E-09
24729 NEPTUNE AVE	Pyrene	mg/kg	0.014	Max	1.5E+05	--	9E-08	--
24729 NEPTUNE AVE	Toluene	µg/kg	0.81	Max	4.2E+08	--	2E-09	--
24729 NEPTUNE AVE	TPH as Diesel	mg/kg	65	Max	1.1E+05	--	6E-04	--
24729 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.074	Max	6.6E+04	--	1E-06	--
24729 NEPTUNE AVE	TPH as Motor Oil	mg/kg	120	Max	2.9E+05	--	4E-04	--
24729 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.02	Max	3.5E+05	1.4E+03	6E-08	2E-11
24729 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00498	95UCL	2.0E+04	--	3E-07	--
24729 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.32	Max	2.1E+04	1.1E+02	2E-05	3E-09
24729 PANAMA AVE	Naphthalene	mg/kg	0.0471	95UCL	1.3E+04	3.5E+02	4E-06	1E-10
24729 PANAMA AVE	Pyrene	mg/kg	0.0134	95UCL	1.5E+05	--	9E-08	--
24729 PANAMA AVE	TPH as Diesel	mg/kg	30.02	95UCL	1.1E+05	--	3E-04	--
24729 PANAMA AVE	TPH as Gasoline	mg/kg	0.068	Max	6.6E+04	--	1E-06	--
24729 PANAMA AVE	TPH as Motor Oil	mg/kg	77.77	95UCL	2.9E+05	--	3E-04	--
24729 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.22	Max	7.2E+06	--	3E-08	--
24729 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0039	Max	3.5E+05	1.4E+03	1E-08	3E-12
24729 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0078	Max	2.0E+04	--	4E-07	--
24729 RAVENNA AVE	Naphthalene	mg/kg	0.17	Max	1.3E+04	3.5E+02	1E-05	5E-10
24729 RAVENNA AVE	Pyrene	mg/kg	0.0086	Max	1.5E+05	--	6E-08	--
24729 RAVENNA AVE	Toluene	µg/kg	1.4	Max	4.2E+08	--	3E-09	--
24729 RAVENNA AVE	Xylenes, Total	µg/kg	0.28	Max	4.9E+07	--	6E-09	--
24732 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1.4	Max	7.2E+06	--	2E-07	--
24732 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.13	Max	7.4E+06	--	2E-08	--
24732 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.002	Max	2.0E+04	--	1E-07	--
24732 MARBELLA AVE	Benzene	µg/kg	2.1	Max	5.8E+06	1.9E+04	4E-07	1E-10
24732 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.37	95UCL	2.1E+04	1.1E+02	2E-05	3E-09
24732 MARBELLA AVE	Ethylbenzene	µg/kg	1.4	Max	2.9E+08	4.2E+05	5E-09	3E-12
24732 MARBELLA AVE	Naphthalene	mg/kg	0.025	Max	1.3E+04	3.5E+02	2E-06	7E-11
24732 MARBELLA AVE	Pyrene	mg/kg	0.0036	95UCL	1.5E+05	--	2E-08	--
24732 MARBELLA AVE	Toluene	µg/kg	0.326	95UCL	4.2E+08	--	8E-10	--
24732 MARBELLA AVE	TPH as Gasoline	mg/kg	0.25	Max	6.6E+04	--	4E-06	--
24732 MARBELLA AVE	Xylenes, Total	µg/kg	0.75	Max	4.9E+07	--	2E-08	--
24732 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	37000	Max	7.2E+06	--	5E-03	--
24732 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	13000	Max	7.4E+06	--	2E-03	--
24732 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	39	Max	3.5E+05	1.4E+03	1E-04	3E-08
24732 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	63	Max	2.0E+04	--	3E-03	--
24732 NEPTUNE AVE	Benzene	µg/kg	16000	Max	5.8E+06	1.9E+04	3E-03	8E-07
24732 NEPTUNE AVE	Ethylbenzene	µg/kg	15000	Max	2.9E+08	4.2E+05	5E-05	4E-08
24732 NEPTUNE AVE	Naphthalene	mg/kg	16	Max	1.3E+04	3.5E+02	1E-03	5E-08
24732 NEPTUNE AVE	Pyrene	mg/kg	2.007	95UCL	1.5E+05	--	1E-05	--
24732 NEPTUNE AVE	Toluene	µg/kg	50000	Max	4.2E+08	--	1E-04	--
24732 NEPTUNE AVE	TPH as Diesel	mg/kg	31000	Max	1.1E+05	--	3E-01	--
24732 NEPTUNE AVE	TPH as Gasoline	mg/kg	3600	Max	6.6E+04	--	6E-02	--
24732 NEPTUNE AVE	TPH as Motor Oil	mg/kg	40000	Max	2.9E+05	--	1E-01	--
24732 NEPTUNE AVE	Xylenes, Total	µg/kg	100000	Max	4.9E+07	--	2E-03	--
24732 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.1	Max	5.4E+07	4.1E+04	2E-09	2E-12
24732 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.11	Max	7.2E+06	--	2E-08	--
24732 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0082	Max	3.5E+05	1.4E+03	2E-08	6E-12
24732 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.017	Max	2.0E+04	--	9E-07	--
24732 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.3	Max	2.1E+04	1.1E+02	2E-05	3E-09
24732 PANAMA AVE	Naphthalene	mg/kg	0.0425	95UCL	1.3E+04	3.5E+02	3E-06	1E-10
24732 PANAMA AVE	Pyrene	mg/kg	0.003	95UCL	1.5E+05	--	2E-08	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24732 PANAMA AVE	TPH as Diesel	mg/kg	9.2	Max	1.1E+05	--	8E-05	--
24732 PANAMA AVE	TPH as Motor Oil	mg/kg	23	Max	2.9E+05	--	8E-05	--
24732 PANAMA AVE	Xylenes, Total	µg/kg	0.17	Max	4.9E+07	--	4E-09	--
24732 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	7.816	95UCL	7.2E+06	--	1E-06	--
24732 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.64	Max	7.4E+06	--	9E-08	--
24732 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.00615	95UCL	3.5E+05	1.4E+03	2E-08	5E-12
24732 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00703	95UCL	2.0E+04	--	4E-07	--
24732 RAVENNA AVE	Benzene	µg/kg	0.14	Max	5.8E+06	1.9E+04	2E-08	7E-12
24732 RAVENNA AVE	Ethylbenzene	µg/kg	1.3	Max	2.9E+08	4.2E+05	5E-09	3E-12
24732 RAVENNA AVE	Naphthalene	mg/kg	0.00859	95UCL	1.3E+04	3.5E+02	7E-07	3E-11
24732 RAVENNA AVE	Pyrene	mg/kg	0.0076	95UCL	1.5E+05	--	5E-08	--
24732 RAVENNA AVE	Toluene	µg/kg	0.184	95UCL	4.2E+08	--	4E-10	--
24732 RAVENNA AVE	TPH as Diesel	mg/kg	280	Max	1.1E+05	--	3E-03	--
24732 RAVENNA AVE	TPH as Gasoline	mg/kg	0.124	95UCL	6.6E+04	--	2E-06	--
24732 RAVENNA AVE	TPH as Motor Oil	mg/kg	600	Max	2.9E+05	--	2E-03	--
24732 RAVENNA AVE	Xylenes, Total	µg/kg	0.502	95UCL	4.9E+07	--	1E-08	--
24733 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.041	Max	3.5E+05	1.4E+03	1E-07	3E-11
24733 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.051	Max	2.0E+04	--	3E-06	--
24733 MARBELLA AVE	Benzene	µg/kg	2.4	Max	5.8E+06	1.9E+04	4E-07	1E-10
24733 MARBELLA AVE	Bromomethane	µg/kg	1.6	Max	7.7E+05	--	2E-06	--
24733 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.3	Max	2.1E+04	1.1E+02	2E-05	3E-09
24733 MARBELLA AVE	Cobalt	mg/kg	4.468	95UCL	2.1E+03	2.7E+06	2E-03	2E-12
24733 MARBELLA AVE	Ethylbenzene	µg/kg	0.34	Max	2.9E+08	4.2E+05	1E-09	8E-13
24733 MARBELLA AVE	Naphthalene	mg/kg	0.016	Max	1.3E+04	3.5E+02	1E-06	5E-11
24733 MARBELLA AVE	Pyrene	mg/kg	0.0065	Max	1.5E+05	--	4E-08	--
24733 MARBELLA AVE	Tetrachloroethene	µg/kg	0.27	Max	7.5E+06	4.9E+04	4E-08	6E-12
24733 MARBELLA AVE	Toluene	µg/kg	0.43	Max	4.2E+08	--	1E-09	--
24733 MARBELLA AVE	TPH as Diesel	mg/kg	11	Max	1.1E+05	--	1E-04	--
24733 MARBELLA AVE	TPH as Gasoline	mg/kg	0.2	Max	6.6E+04	--	3E-06	--
24733 MARBELLA AVE	TPH as Motor Oil	mg/kg	44	Max	2.9E+05	--	2E-04	--
24733 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.13	Max	7.2E+06	--	2E-08	--
24733 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00719	95UCL	3.5E+05	1.4E+03	2E-08	5E-12
24733 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0255	95UCL	2.0E+04	--	1E-06	--
24733 PANAMA AVE	Benzene	µg/kg	0.446	95UCL	5.8E+06	1.9E+04	8E-08	2E-11
24733 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.1E+04	1.1E+02	2E-05	3E-09
24733 PANAMA AVE	Naphthalene	mg/kg	0.0101	95UCL	1.3E+04	3.5E+02	8E-07	3E-11
24733 PANAMA AVE	Pyrene	mg/kg	0.102	95UCL	1.5E+05	--	7E-07	--
24733 PANAMA AVE	Toluene	µg/kg	1.483	95UCL	4.2E+08	--	4E-09	--
24733 PANAMA AVE	TPH as Diesel	mg/kg	53.64	95UCL	1.1E+05	--	5E-04	--
24733 PANAMA AVE	TPH as Gasoline	mg/kg	0.072	Max	6.6E+04	--	1E-06	--
24733 PANAMA AVE	TPH as Motor Oil	mg/kg	135	95UCL	2.9E+05	--	5E-04	--
24733 PANAMA AVE	Xylenes, Total	µg/kg	0.17	Max	4.9E+07	--	4E-09	--
24733 RAVENNA AVE	1,2,3-Trichloropropane	µg/kg	0.73	Max	2.1E+05	1.9E+03	4E-06	4E-10
24733 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.32	Max	7.2E+06	--	4E-08	--
24733 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.14	Max	7.4E+06	--	2E-08	--
24733 RAVENNA AVE	Benzene	µg/kg	0.22	Max	5.8E+06	1.9E+04	4E-08	1E-11
24733 RAVENNA AVE	Bromomethane	µg/kg	1.4	Max	7.7E+05	--	2E-06	--
24733 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	2.1E+04	1.1E+02	1E-05	3E-09
24733 RAVENNA AVE	Naphthalene	mg/kg	0.00433	95UCL	1.3E+04	3.5E+02	3E-07	1E-11
24733 RAVENNA AVE	Pyrene	mg/kg	0.00209	95UCL	1.5E+05	--	1E-08	--
24733 RAVENNA AVE	Thallium	mg/kg	0.47	Max	6.8E+01	--	7E-03	--
24733 RAVENNA AVE	Toluene	µg/kg	1.982	95UCL	4.2E+08	--	5E-09	--
24733 RAVENNA AVE	TPH as Gasoline	mg/kg	0.29	Max	6.6E+04	--	4E-06	--
24733 RAVENNA AVE	Xylenes, Total	µg/kg	0.4	Max	4.9E+07	--	8E-09	--
24735 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.64	Max	7.2E+06	--	9E-08	--
24735 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.15	Max	7.4E+06	--	2E-08	--
24735 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0068	Max	3.5E+05	1.4E+03	2E-08	5E-12
24735 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.00708	95UCL	2.0E+04	--	4E-07	--
24735 NEPTUNE AVE	Benzene	µg/kg	0.2	Max	5.8E+06	1.9E+04	3E-08	1E-11
24735 NEPTUNE AVE	Naphthalene	mg/kg	0.00209	95UCL	1.3E+04	3.5E+02	2E-07	6E-12
24735 NEPTUNE AVE	Pyrene	mg/kg	0.024	95UCL	1.5E+05	--	2E-07	--
24735 NEPTUNE AVE	Toluene	µg/kg	0.43	Max	4.2E+08	--	1E-09	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24735 NEPTUNE AVE	TPH as Diesel	mg/kg	10.63	95UCL	1.1E+05	--	1E-04	--
24735 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.087	Max	6.6E+04	--	1E-06	--
24735 NEPTUNE AVE	TPH as Motor Oil	mg/kg	24.5	95UCL	2.9E+05	--	8E-05	--
24736 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0013	Max	3.5E+05	1.4E+03	4E-09	1E-12
24736 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0022	Max	2.0E+04	--	1E-07	--
24736 MARBELLA AVE	Benzene	µg/kg	2	Max	5.8E+06	1.9E+04	3E-07	1E-10
24736 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.302	95UCL	2.1E+04	1.1E+02	2E-05	3E-09
24736 MARBELLA AVE	Cobalt	mg/kg	6.865	95UCL	2.1E+03	2.7E+06	3E-03	3E-12
24736 MARBELLA AVE	Ethylbenzene	µg/kg	0.37	Max	2.9E+08	4.2E+05	1E-09	9E-13
24736 MARBELLA AVE	Naphthalene	mg/kg	0.016	Max	1.3E+04	3.5E+02	1E-06	5E-11
24736 MARBELLA AVE	Pyrene	mg/kg	0.0576	95UCL	1.5E+05	--	4E-07	--
24736 MARBELLA AVE	Toluene	µg/kg	0.231	95UCL	4.2E+08	--	6E-10	--
24736 MARBELLA AVE	TPH as Diesel	mg/kg	11	Max	1.1E+05	--	1E-04	--
24736 MARBELLA AVE	TPH as Gasoline	mg/kg	0.078	Max	6.6E+04	--	1E-06	--
24736 MARBELLA AVE	TPH as Motor Oil	mg/kg	15	Max	2.9E+05	--	5E-05	--
24736 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2354	95UCL	7.2E+06	--	3E-04	--
24736 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	720.2	95UCL	7.4E+06	--	1E-04	--
24736 RAVENNA AVE	1-Methylnaphthalene	mg/kg	18.45	95UCL	3.5E+05	1.4E+03	5E-05	1E-08
24736 RAVENNA AVE	2-Methylnaphthalene	mg/kg	27.85	95UCL	2.0E+04	--	1E-03	--
24736 RAVENNA AVE	Benzene	µg/kg	344.1	95UCL	5.8E+06	1.9E+04	6E-05	2E-08
24736 RAVENNA AVE	Ethylbenzene	µg/kg	2101	95UCL	2.9E+08	4.2E+05	7E-06	5E-09
24736 RAVENNA AVE	Naphthalene	mg/kg	6.842	95UCL	1.3E+04	3.5E+02	5E-04	2E-08
24736 RAVENNA AVE	Pyrene	mg/kg	3.102	95UCL	1.5E+05	--	2E-05	--
24736 RAVENNA AVE	Toluene	µg/kg	24.73	95UCL	4.2E+08	--	6E-08	--
24736 RAVENNA AVE	TPH as Diesel	mg/kg	9952	95UCL	1.1E+05	--	9E-02	--
24736 RAVENNA AVE	TPH as Gasoline	mg/kg	670	95UCL	6.6E+04	--	1E-02	--
24736 RAVENNA AVE	TPH as Motor Oil	mg/kg	10973	95UCL	2.9E+05	--	4E-02	--
24736 RAVENNA AVE	Xylenes, Total	µg/kg	727.2	95UCL	4.9E+07	--	2E-05	--
24737 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.92	Max	7.2E+06	--	1E-07	--
24737 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.1	Max	7.4E+06	--	1E-08	--
24737 MARBELLA AVE	1-Methylnaphthalene	mg/kg	1.4	Max	3.5E+05	1.4E+03	4E-06	1E-09
24737 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.52	Max	2.0E+04	--	3E-05	--
24737 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.48	Max	2.1E+04	1.1E+02	2E-05	4E-09
24737 MARBELLA AVE	Ethylbenzene	µg/kg	1.8	Max	2.9E+08	4.2E+05	6E-09	4E-12
24737 MARBELLA AVE	Naphthalene	mg/kg	0.28	Max	1.3E+04	3.5E+02	2E-05	8E-10
24737 MARBELLA AVE	Pyrene	mg/kg	0.2	Max	1.5E+05	--	1E-06	--
24737 MARBELLA AVE	Tetrachloroethene	µg/kg	0.16	Max	7.5E+06	4.9E+04	2E-08	3E-12
24737 MARBELLA AVE	Toluene	µg/kg	0.43	Max	4.2E+08	--	1E-09	--
24737 MARBELLA AVE	TPH as Diesel	mg/kg	13000	Max	1.1E+05	--	1E-01	--
24737 MARBELLA AVE	TPH as Gasoline	mg/kg	470	Max	6.6E+04	--	7E-03	--
24737 MARBELLA AVE	TPH as Motor Oil	mg/kg	17000	Max	2.9E+05	--	6E-02	--
24737 MARBELLA AVE	Xylenes, Total	µg/kg	2	Max	4.9E+07	--	4E-08	--
24738 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	23475	95UCL	7.2E+06	--	3E-03	--
24738 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	9168	95UCL	7.4E+06	--	1E-03	--
24738 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	17.64	95UCL	3.5E+05	1.4E+03	5E-05	1E-08
24738 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	25.86	95UCL	2.0E+04	--	1E-03	--
24738 NEPTUNE AVE	Benzene	µg/kg	8121	95UCL	5.8E+06	1.9E+04	1E-03	4E-07
24738 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.25	Max	2.1E+04	1.1E+02	1E-05	2E-09
24738 NEPTUNE AVE	Ethylbenzene	µg/kg	9551	95UCL	2.9E+08	4.2E+05	3E-05	2E-08
24738 NEPTUNE AVE	Naphthalene	mg/kg	8.388	95UCL	1.3E+04	3.5E+02	6E-04	2E-08
24738 NEPTUNE AVE	Pyrene	mg/kg	4.37	95UCL	1.5E+05	--	3E-05	--
24738 NEPTUNE AVE	Toluene	µg/kg	23662	95UCL	4.2E+08	--	6E-05	--
24738 NEPTUNE AVE	TPH as Diesel	mg/kg	10817	95UCL	1.1E+05	--	1E-01	--
24738 NEPTUNE AVE	TPH as Gasoline	mg/kg	4551	95UCL	6.6E+04	--	7E-02	--
24738 NEPTUNE AVE	TPH as Motor Oil	mg/kg	12108	95UCL	2.9E+05	--	4E-02	--
24738 NEPTUNE AVE	Xylenes, Total	µg/kg	54345	95UCL	4.9E+07	--	1E-03	--
24738 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.27	Max	5.4E+07	4.1E+04	5E-09	7E-12
24738 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.15	Max	7.2E+06	--	2E-08	--
24738 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0048	Max	3.5E+05	1.4E+03	1E-08	4E-12
24738 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.011	Max	2.0E+04	--	6E-07	--
24738 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	2.1E+04	1.1E+02	2E-05	3E-09
24738 PANAMA AVE	Naphthalene	mg/kg	0.0046	Max	1.3E+04	3.5E+02	4E-07	1E-11

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24738 PANAMA AVE	Pyrene	mg/kg	0.065	Max	1.5E+05	--	4E-07	--
24738 PANAMA AVE	TPH as Diesel	mg/kg	110	Max	1.1E+05	--	1E-03	--
24738 PANAMA AVE	TPH as Gasoline	mg/kg	0.064	Max	6.6E+04	--	1E-06	--
24738 PANAMA AVE	TPH as Motor Oil	mg/kg	210	Max	2.9E+05	--	7E-04	--
24739 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.21	Max	7.2E+06	--	3E-08	--
24739 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0066	Max	3.5E+05	1.4E+03	2E-08	5E-12
24739 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.00464	95UCL	2.0E+04	--	2E-07	--
24739 NEPTUNE AVE	Benzene	µg/kg	0.17	Max	5.8E+06	1.9E+04	3E-08	9E-12
24739 NEPTUNE AVE	Bromomethane	µg/kg	2	Max	7.7E+05	--	3E-06	--
24739 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.1E+04	1.1E+02	2E-05	4E-09
24739 NEPTUNE AVE	Naphthalene	mg/kg	0.0097	95UCL	1.3E+04	3.5E+02	7E-07	3E-11
24739 NEPTUNE AVE	Pyrene	mg/kg	0.0125	95UCL	1.5E+05	--	8E-08	--
24739 NEPTUNE AVE	Toluene	µg/kg	0.24	Max	4.2E+08	--	6E-10	--
24739 NEPTUNE AVE	TPH as Diesel	mg/kg	10	Max	1.1E+05	--	9E-05	--
24739 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.093	Max	6.6E+04	--	1E-06	--
24739 NEPTUNE AVE	TPH as Motor Oil	mg/kg	30	Max	2.9E+05	--	1E-04	--
24739 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	4951	95UCL	7.2E+06	--	7E-04	--
24739 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	1443	95UCL	7.4E+06	--	2E-04	--
24739 PANAMA AVE	1-Methylnaphthalene	mg/kg	9.764	95UCL	3.5E+05	1.4E+03	3E-05	7E-09
24739 PANAMA AVE	2-Methylnaphthalene	mg/kg	14.17	95UCL	2.0E+04	--	7E-04	--
24739 PANAMA AVE	Benzene	µg/kg	369.2	95UCL	5.8E+06	1.9E+04	6E-05	2E-08
24739 PANAMA AVE	Bromomethane	µg/kg	2.1	Max	7.7E+05	--	3E-06	--
24739 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.36	Max	2.1E+04	1.1E+02	2E-05	3E-09
24739 PANAMA AVE	Ethylbenzene	µg/kg	2318	95UCL	2.9E+08	4.2E+05	8E-06	6E-09
24739 PANAMA AVE	Methylene Chloride	µg/kg	7.1	Max	3.2E+07	4.7E+05	2E-07	2E-11
24739 PANAMA AVE	Naphthalene	mg/kg	13	95UCL	1.3E+04	3.5E+02	1E-03	4E-08
24739 PANAMA AVE	Pyrene	mg/kg	1.186	95UCL	1.5E+05	--	8E-06	--
24739 PANAMA AVE	Toluene	µg/kg	93.15	95UCL	4.2E+08	--	2E-07	--
24739 PANAMA AVE	TPH as Diesel	mg/kg	10115	95UCL	1.1E+05	--	9E-02	--
24739 PANAMA AVE	TPH as Gasoline	mg/kg	1381	95UCL	6.6E+04	--	2E-02	--
24739 PANAMA AVE	TPH as Motor Oil	mg/kg	22391	95UCL	2.9E+05	--	8E-02	--
24739 PANAMA AVE	Xylenes, Total	µg/kg	5000	95UCL	4.9E+07	--	1E-04	--
24739 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	34000	95UCL	7.2E+06	--	5E-03	--
24739 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	8136	95UCL	7.4E+06	--	1E-03	--
24739 RAVENNA AVE	1-Methylnaphthalene	mg/kg	30.22	95UCL	3.5E+05	1.4E+03	9E-05	2E-08
24739 RAVENNA AVE	2-Methylnaphthalene	mg/kg	49.28	95UCL	2.0E+04	--	3E-03	--
24739 RAVENNA AVE	Benzene	µg/kg	5330	95UCL	5.8E+06	1.9E+04	9E-04	3E-07
24739 RAVENNA AVE	Bromomethane	µg/kg	270	Max	7.7E+05	--	4E-04	--
24739 RAVENNA AVE	Ethylbenzene	µg/kg	8990	95UCL	2.9E+08	4.2E+05	3E-05	2E-08
24739 RAVENNA AVE	Naphthalene	mg/kg	18.93	95UCL	1.3E+04	3.5E+02	1E-03	6E-08
24739 RAVENNA AVE	Pyrene	mg/kg	5.3	95UCL	1.5E+05	--	4E-05	--
24739 RAVENNA AVE	Toluene	µg/kg	13782	95UCL	4.2E+08	--	3E-05	--
24739 RAVENNA AVE	TPH as Diesel	mg/kg	12690	95UCL	1.1E+05	--	1E-01	--
24739 RAVENNA AVE	TPH as Gasoline	mg/kg	1902	95UCL	6.6E+04	--	3E-02	--
24739 RAVENNA AVE	TPH as Motor Oil	mg/kg	11550	95UCL	2.9E+05	--	4E-02	--
24739 RAVENNA AVE	Xylenes, Total	µg/kg	73161	95UCL	4.9E+07	--	2E-03	--
24740 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.00636	95UCL	3.5E+05	1.4E+03	2E-08	5E-12
24740 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00991	95UCL	2.0E+04	--	5E-07	--
24740 MARBELLA AVE	Benzene	µg/kg	0.193	95UCL	5.8E+06	1.9E+04	3E-08	1E-11
24740 MARBELLA AVE	Bromomethane	µg/kg	4	Max	7.7E+05	--	5E-06	--
24740 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.454	95UCL	2.1E+04	1.1E+02	2E-05	4E-09
24740 MARBELLA AVE	Naphthalene	mg/kg	0.00697	95UCL	1.3E+04	3.5E+02	5E-07	2E-11
24740 MARBELLA AVE	Pyrene	mg/kg	0.0113	95UCL	1.5E+05	--	8E-08	--
24740 MARBELLA AVE	Tetrachloroethene	µg/kg	0.47	Max	7.5E+06	4.9E+04	6E-08	1E-11
24740 MARBELLA AVE	Toluene	µg/kg	0.245	95UCL	4.2E+08	--	6E-10	--
24740 MARBELLA AVE	TPH as Diesel	mg/kg	530	Max	1.1E+05	--	5E-03	--
24740 MARBELLA AVE	TPH as Gasoline	mg/kg	110	Max	6.6E+04	--	2E-03	--
24740 MARBELLA AVE	TPH as Motor Oil	mg/kg	1200	Max	2.9E+05	--	4E-03	--
24740 MARBELLA AVE	Xylenes, Total	µg/kg	0.28	Max	4.9E+07	--	6E-09	--
24741 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0049	Max	3.5E+05	1.4E+03	1E-08	4E-12
24741 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.01	Max	2.0E+04	--	5E-07	--
24741 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.23	Max	2.1E+04	1.1E+02	1E-05	2E-09

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24741 MARBELLA AVE	Naphthalene	mg/kg	0.0031	Max	1.3E+04	3.5E+02	2E-07	9E-12
24741 MARBELLA AVE	Pyrene	mg/kg	0.0008	Max	1.5E+05	--	5E-09	--
24741 MARBELLA AVE	Toluene	µg/kg	0.19	Max	4.2E+08	--	5E-10	--
24743 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	5757	95UCL	7.2E+06	--	8E-04	--
24743 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	2294	95UCL	7.4E+06	--	3E-04	--
24743 RAVENNA AVE	1-Methylnaphthalene	mg/kg	18.37	95UCL	3.5E+05	1.4E+03	5E-05	1E-08
24743 RAVENNA AVE	2-Methylnaphthalene	mg/kg	28.19	95UCL	2.0E+04	--	1E-03	--
24743 RAVENNA AVE	Benzene	µg/kg	3133	95UCL	5.8E+06	1.9E+04	5E-04	2E-07
24743 RAVENNA AVE	Bromomethane	µg/kg	160	Max	7.7E+05	--	2E-04	--
24743 RAVENNA AVE	Ethylbenzene	µg/kg	2328	95UCL	2.9E+08	4.2E+05	8E-06	6E-09
24743 RAVENNA AVE	Naphthalene	mg/kg	9.43	95UCL	1.3E+04	3.5E+02	7E-04	3E-08
24743 RAVENNA AVE	Pyrene	mg/kg	3.761	95UCL	1.5E+05	--	3E-05	--
24743 RAVENNA AVE	Toluene	µg/kg	2140	95UCL	4.2E+08	--	5E-06	--
24743 RAVENNA AVE	TPH as Diesel	mg/kg	11768	95UCL	1.1E+05	--	1E-01	--
24743 RAVENNA AVE	TPH as Gasoline	mg/kg	516.8	95UCL	6.6E+04	--	8E-03	--
24743 RAVENNA AVE	TPH as Motor Oil	mg/kg	17767	95UCL	2.9E+05	--	6E-02	--
24743 RAVENNA AVE	Xylenes, Total	µg/kg	9883	95UCL	4.9E+07	--	2E-04	--
24744 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.28	Max	7.2E+06	--	4E-08	--
24744 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0043	Max	3.5E+05	1.4E+03	1E-08	3E-12
24744 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0056	Max	2.0E+04	--	3E-07	--
24744 MARBELLA AVE	Benzene	µg/kg	0.15	Max	5.8E+06	1.9E+04	3E-08	8E-12
24744 MARBELLA AVE	Bromomethane	µg/kg	2.3	Max	7.7E+05	--	3E-06	--
24744 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.36	Max	2.1E+04	1.1E+02	2E-05	3E-09
24744 MARBELLA AVE	Naphthalene	mg/kg	0.0035	Max	1.3E+04	3.5E+02	3E-07	1E-11
24744 MARBELLA AVE	Pyrene	mg/kg	0.0047	Max	1.5E+05	--	3E-08	--
24744 MARBELLA AVE	Tetrachloroethene	µg/kg	1.9	Max	7.5E+06	4.9E+04	3E-07	4E-11
24744 MARBELLA AVE	Toluene	µg/kg	0.21	Max	4.2E+08	--	5E-10	--
24744 MARBELLA AVE	TPH as Diesel	mg/kg	59	Max	1.1E+05	--	5E-04	--
24744 MARBELLA AVE	TPH as Gasoline	mg/kg	0.12	Max	6.6E+04	--	2E-06	--
24744 MARBELLA AVE	TPH as Motor Oil	mg/kg	150	Max	2.9E+05	--	5E-04	--
24744 MARBELLA AVE	Trichloroethene	µg/kg	0.91	Max	5.0E+05	1.0E+05	2E-06	9E-12
24748 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	700	Max	7.2E+06	--	1E-04	--
24748 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	200	Max	7.4E+06	--	3E-05	--
24748 RAVENNA AVE	1-Methylnaphthalene	mg/kg	4.2	Max	3.5E+05	1.4E+03	1E-05	3E-09
24748 RAVENNA AVE	2,4-Dinitrotoluene	mg/kg	0.074	Max	1.1E+04	1.4E+02	7E-06	5E-10
24748 RAVENNA AVE	2-Methylnaphthalene	mg/kg	5.1	Max	2.0E+04	--	3E-04	--
24748 RAVENNA AVE	Benzene	µg/kg	51	Max	5.8E+06	1.9E+04	9E-06	3E-09
24748 RAVENNA AVE	Ethylbenzene	µg/kg	330	Max	2.9E+08	4.2E+05	1E-06	8E-10
24748 RAVENNA AVE	Naphthalene	mg/kg	1.7	Max	1.3E+04	3.5E+02	1E-04	5E-09
24748 RAVENNA AVE	Pyrene	mg/kg	1.6	Max	1.5E+05	--	1E-05	--
24748 RAVENNA AVE	Toluene	µg/kg	14	Max	4.2E+08	--	3E-08	--
24748 RAVENNA AVE	TPH as Diesel	mg/kg	4100	Max	1.1E+05	--	4E-02	--
24748 RAVENNA AVE	TPH as Gasoline	mg/kg	360	Max	6.6E+04	--	6E-03	--
24748 RAVENNA AVE	TPH as Motor Oil	mg/kg	4500	Max	2.9E+05	--	2E-02	--
24748 RAVENNA AVE	Xylenes, Total	µg/kg	910	Max	4.9E+07	--	2E-05	--
24749 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2760	95UCL	7.2E+06	--	4E-04	--
24749 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	384	95UCL	7.4E+06	--	5E-05	--
24749 RAVENNA AVE	1-Methylnaphthalene	mg/kg	15.43	95UCL	3.5E+05	1.4E+03	4E-05	1E-08
24749 RAVENNA AVE	2-Methylnaphthalene	mg/kg	31	95UCL	2.0E+04	--	2E-03	--
24749 RAVENNA AVE	Benzene	µg/kg	719	95UCL	5.8E+06	1.9E+04	1E-04	4E-08
24749 RAVENNA AVE	Ethylbenzene	µg/kg	1817	95UCL	2.9E+08	4.2E+05	6E-06	4E-09
24749 RAVENNA AVE	Naphthalene	mg/kg	7.41	95UCL	1.3E+04	3.5E+02	6E-04	2E-08
24749 RAVENNA AVE	Pyrene	mg/kg	4.755	95UCL	1.5E+05	--	3E-05	--
24749 RAVENNA AVE	Toluene	µg/kg	0.2	Max	4.2E+08	--	5E-10	--
24749 RAVENNA AVE	TPH as Diesel	mg/kg	14792	95UCL	1.1E+05	--	1E-01	--
24749 RAVENNA AVE	TPH as Gasoline	mg/kg	475.8	95UCL	6.6E+04	--	7E-03	--
24749 RAVENNA AVE	TPH as Motor Oil	mg/kg	17460	95UCL	2.9E+05	--	6E-02	--
24749 RAVENNA AVE	Xylenes, Total	µg/kg	679	95UCL	4.9E+07	--	1E-05	--
24752 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	4100	95UCL	7.2E+06	--	6E-04	--
24752 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	383.3	95UCL	7.4E+06	--	5E-05	--
24752 RAVENNA AVE	1-Methylnaphthalene	mg/kg	4.164	95UCL	3.5E+05	1.4E+03	1E-05	3E-09
24752 RAVENNA AVE	2-Methylnaphthalene	mg/kg	6.231	95UCL	2.0E+04	--	3E-04	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24752 RAVENNA AVE	Benzene	µg/kg	41.46	95UCL	5.8E+06	1.9E+04	7E-06	2E-09
24752 RAVENNA AVE	Ethylbenzene	µg/kg	1471	95UCL	2.9E+08	4.2E+05	5E-06	4E-09
24752 RAVENNA AVE	Naphthalene	mg/kg	4.011	95UCL	1.3E+04	3.5E+02	3E-04	1E-08
24752 RAVENNA AVE	Pyrene	mg/kg	0.6	95UCL	1.5E+05	--	4E-06	--
24752 RAVENNA AVE	Toluene	µg/kg	7.883	95UCL	4.2E+08	--	2E-08	--
24752 RAVENNA AVE	TPH as Diesel	mg/kg	3531	95UCL	1.1E+05	--	3E-02	--
24752 RAVENNA AVE	TPH as Gasoline	mg/kg	798.9	95UCL	6.6E+04	--	1E-02	--
24752 RAVENNA AVE	TPH as Motor Oil	mg/kg	3843	95UCL	2.9E+05	--	1E-02	--
24752 RAVENNA AVE	Xylenes, Total	µg/kg	940.3	95UCL	4.9E+07	--	2E-05	--
24802 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.72	Max	7.2E+06	--	1E-07	--
24802 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.12	Max	7.4E+06	--	2E-08	--
24802 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0011	Max	3.5E+05	1.4E+03	3E-09	8E-13
24802 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00185	95UCL	2.0E+04	--	9E-08	--
24802 PANAMA AVE	Benzene	µg/kg	0.18	Max	5.8E+06	1.9E+04	3E-08	9E-12
24802 PANAMA AVE	Bromomethane	µg/kg	1.8	Max	7.7E+05	--	2E-06	--
24802 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.249	95UCL	2.1E+04	1.1E+02	1E-05	2E-09
24802 PANAMA AVE	Ethylbenzene	µg/kg	0.17	Max	2.9E+08	4.2E+05	6E-10	4E-13
24802 PANAMA AVE	Naphthalene	mg/kg	0.0018	Max	1.3E+04	3.5E+02	1E-07	5E-12
24802 PANAMA AVE	Pyrene	mg/kg	0.0129	95UCL	1.5E+05	--	9E-08	--
24802 PANAMA AVE	Toluene	µg/kg	0.19	Max	4.2E+08	--	5E-10	--
24802 PANAMA AVE	TPH as Diesel	mg/kg	130	Max	1.1E+05	--	1E-03	--
24802 PANAMA AVE	TPH as Gasoline	mg/kg	0.12	Max	6.6E+04	--	2E-06	--
24802 PANAMA AVE	TPH as Motor Oil	mg/kg	250	Max	2.9E+05	--	9E-04	--
24802 PANAMA AVE	Xylenes, Total	µg/kg	0.78	Max	4.9E+07	--	2E-08	--
24803 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.28	Max	7.2E+06	--	4E-08	--
24803 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0018	Max	3.5E+05	1.4E+03	5E-09	1E-12
24803 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.00211	95UCL	2.0E+04	--	1E-07	--
24803 NEPTUNE AVE	Benzene	µg/kg	0.15	Max	5.8E+06	1.9E+04	3E-08	8E-12
24803 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.27	Max	2.1E+04	1.1E+02	1E-05	2E-09
24803 NEPTUNE AVE	Naphthalene	mg/kg	0.0025	Max	1.3E+04	3.5E+02	2E-07	7E-12
24803 NEPTUNE AVE	Pyrene	mg/kg	0.00607	95UCL	1.5E+05	--	4E-08	--
24803 NEPTUNE AVE	Toluene	µg/kg	0.13	Max	4.2E+08	--	3E-10	--
24803 NEPTUNE AVE	TPH as Diesel	mg/kg	57.66	95UCL	1.1E+05	--	5E-04	--
24803 NEPTUNE AVE	TPH as Motor Oil	mg/kg	70.21	95UCL	2.9E+05	--	2E-04	--
24803 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	6900	Max	7.2E+06	--	1E-03	--
24803 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	380	Max	7.4E+06	--	5E-05	--
24803 PANAMA AVE	1-Methylnaphthalene	mg/kg	6.7	Max	3.5E+05	1.4E+03	2E-05	5E-09
24803 PANAMA AVE	2-Methylnaphthalene	mg/kg	11	Max	2.0E+04	--	6E-04	--
24803 PANAMA AVE	Benzene	µg/kg	670	Max	5.8E+06	1.9E+04	1E-04	4E-08
24803 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.4	Max	2.1E+04	1.1E+02	2E-05	4E-09
24803 PANAMA AVE	Ethylbenzene	µg/kg	2400	Max	2.9E+08	4.2E+05	8E-06	6E-09
24803 PANAMA AVE	Naphthalene	mg/kg	6.8	Max	1.3E+04	3.5E+02	5E-04	2E-08
24803 PANAMA AVE	Pyrene	mg/kg	0.62	Max	1.5E+05	--	4E-06	--
24803 PANAMA AVE	TPH as Diesel	mg/kg	3300	Max	1.1E+05	--	3E-02	--
24803 PANAMA AVE	TPH as Gasoline	mg/kg	770	Max	6.6E+04	--	1E-02	--
24803 PANAMA AVE	TPH as Motor Oil	mg/kg	3300	Max	2.9E+05	--	1E-02	--
24803 PANAMA AVE	Xylenes, Total	µg/kg	2000	Max	4.9E+07	--	4E-05	--
24809 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.65	Max	7.2E+06	--	9E-08	--
24809 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.8	Max	3.5E+05	1.4E+03	5E-06	1E-09
24809 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0508	95UCL	2.0E+04	--	3E-06	--
24809 NEPTUNE AVE	Benzene	µg/kg	0.11	Max	5.8E+06	1.9E+04	2E-08	6E-12
24809 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.4	Max	1.1E+05	3.0E+03	1E-05	5E-10
24809 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.1E+04	1.1E+02	2E-05	3E-09
24809 NEPTUNE AVE	Naphthalene	mg/kg	0.0753	95UCL	1.3E+04	3.5E+02	6E-06	2E-10
24809 NEPTUNE AVE	Pyrene	mg/kg	2	95UCL	1.5E+05	--	1E-05	--
24809 NEPTUNE AVE	Toluene	µg/kg	6	Max	4.2E+08	--	1E-08	--
24809 NEPTUNE AVE	TPH as Diesel	mg/kg	8100	Max	1.1E+05	--	7E-02	--
24809 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.151	95UCL	6.6E+04	--	2E-06	--
24809 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3963	95UCL	2.9E+05	--	1E-02	--
24809 NEPTUNE AVE	Xylenes, Total	µg/kg	0.53	Max	4.9E+07	--	1E-08	--
24809 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	20290	95UCL	7.2E+06	--	3E-03	--
24809 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	2676	95UCL	7.4E+06	--	4E-04	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24809 PANAMA AVE	1-Methylnaphthalene	mg/kg	20.97	95UCL	3.5E+05	1.4E+03	6E-05	2E-08
24809 PANAMA AVE	2-Methylnaphthalene	mg/kg	42.29	95UCL	2.0E+04	--	2E-03	--
24809 PANAMA AVE	Benzene	µg/kg	3356	95UCL	5.8E+06	1.9E+04	6E-04	2E-07
24809 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.088	Max	2.1E+04	1.1E+02	4E-06	8E-10
24809 PANAMA AVE	Ethylbenzene	µg/kg	6557	95UCL	2.9E+08	4.2E+05	2E-05	2E-08
24809 PANAMA AVE	Naphthalene	mg/kg	13.97	95UCL	1.3E+04	3.5E+02	1E-03	4E-08
24809 PANAMA AVE	Pyrene	mg/kg	1.71	95UCL	1.5E+05	--	1E-05	--
24809 PANAMA AVE	Toluene	µg/kg	12	Max	4.2E+08	--	3E-08	--
24809 PANAMA AVE	TPH as Diesel	mg/kg	4701	95UCL	1.1E+05	--	4E-02	--
24809 PANAMA AVE	TPH as Gasoline	mg/kg	1643	95UCL	6.6E+04	--	3E-02	--
24809 PANAMA AVE	TPH as Motor Oil	mg/kg	3613	95UCL	2.9E+05	--	1E-02	--
24809 PANAMA AVE	Xylenes, Total	µg/kg	9152	95UCL	4.9E+07	--	2E-04	--
24812 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0056	Max	3.5E+05	1.4E+03	2E-08	4E-12
24812 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.012	Max	2.0E+04	--	6E-07	--
24812 PANAMA AVE	Bromomethane	µg/kg	1.8	Max	7.7E+05	--	2E-06	--
24812 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.26	Max	2.1E+04	1.1E+02	1E-05	2E-09
24812 PANAMA AVE	Naphthalene	mg/kg	0.0056	Max	1.3E+04	3.5E+02	4E-07	2E-11
24812 PANAMA AVE	Pyrene	mg/kg	0.045	Max	1.5E+05	--	3E-07	--
24812 PANAMA AVE	TPH as Diesel	mg/kg	27	Max	1.1E+05	--	3E-04	--
24812 PANAMA AVE	TPH as Motor Oil	mg/kg	37	Max	2.9E+05	--	1E-04	--
24813 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2300	Max	7.2E+06	--	3E-04	--
24813 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	390	Max	7.4E+06	--	5E-05	--
24813 PANAMA AVE	1-Methylnaphthalene	mg/kg	28	Max	3.5E+05	1.4E+03	8E-05	2E-08
24813 PANAMA AVE	2-Methylnaphthalene	mg/kg	42	Max	2.0E+04	--	2E-03	--
24813 PANAMA AVE	Benzene	µg/kg	390	Max	5.8E+06	1.9E+04	7E-05	2E-08
24813 PANAMA AVE	Cobalt	mg/kg	8.33	Max	2.1E+03	2.7E+06	4E-03	3E-12
24813 PANAMA AVE	Ethylbenzene	µg/kg	860	Max	2.9E+08	4.2E+05	3E-06	2E-09
24813 PANAMA AVE	Naphthalene	mg/kg	16	Max	1.3E+04	3.5E+02	1E-03	5E-08
24813 PANAMA AVE	Pyrene	mg/kg	2.7	Max	1.5E+05	--	2E-05	--
24813 PANAMA AVE	TPH as Diesel	mg/kg	12000	Max	1.1E+05	--	1E-01	--
24813 PANAMA AVE	TPH as Gasoline	mg/kg	280	Max	6.6E+04	--	4E-03	--
24813 PANAMA AVE	TPH as Motor Oil	mg/kg	13000	Max	2.9E+05	--	5E-02	--
24813 PANAMA AVE	Xylenes, Total	µg/kg	1200	Max	4.9E+07	--	3E-05	--
24815 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.41	Max	7.2E+06	--	6E-08	--
24815 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.11	Max	7.4E+06	--	2E-08	--
24815 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.198	95UCL	3.5E+05	1.4E+03	6E-07	1E-10
24815 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.092	95UCL	2.0E+04	--	5E-06	--
24815 NEPTUNE AVE	Naphthalene	mg/kg	0.198	95UCL	1.3E+04	3.5E+02	2E-05	6E-10
24815 NEPTUNE AVE	Pyrene	mg/kg	0.177	95UCL	1.5E+05	--	1E-06	--
24815 NEPTUNE AVE	Toluene	µg/kg	17	Max	4.2E+08	--	4E-08	--
24815 NEPTUNE AVE	TPH as Diesel	mg/kg	855	95UCL	1.1E+05	--	8E-03	--
24815 NEPTUNE AVE	TPH as Gasoline	mg/kg	3.062	95UCL	6.6E+04	--	5E-05	--
24815 NEPTUNE AVE	TPH as Motor Oil	mg/kg	470	95UCL	2.9E+05	--	2E-03	--
24815 NEPTUNE AVE	Xylenes, Total	µg/kg	0.17	Max	4.9E+07	--	4E-09	--
24818 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.17	Max	7.2E+06	--	2E-08	--
24818 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0033	Max	3.5E+05	1.4E+03	9E-09	2E-12
24818 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0095	Max	2.0E+04	--	5E-07	--
24818 PANAMA AVE	Benzene	µg/kg	0.22	Max	5.8E+06	1.9E+04	4E-08	1E-11
24818 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.29	Max	1.1E+05	3.0E+03	3E-06	1E-10
24818 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	2.1E+04	1.1E+02	2E-05	4E-09
24818 PANAMA AVE	Naphthalene	mg/kg	0.0049	Max	1.3E+04	3.5E+02	4E-07	1E-11
24818 PANAMA AVE	Pyrene	mg/kg	0.016	Max	1.5E+05	--	1E-07	--
24818 PANAMA AVE	Toluene	µg/kg	0.24	Max	4.2E+08	--	6E-10	--
24818 PANAMA AVE	TPH as Diesel	mg/kg	32	Max	1.1E+05	--	3E-04	--
24818 PANAMA AVE	TPH as Gasoline	mg/kg	0.16	Max	6.6E+04	--	2E-06	--
24818 PANAMA AVE	TPH as Motor Oil	mg/kg	59	Max	2.9E+05	--	2E-04	--
24819 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	3152	95UCL	7.2E+06	--	4E-04	--
24819 PANAMA AVE	1,2-Dichloropropane	µg/kg	90	Max	1.3E+06	7.2E+04	7E-05	1E-09
24819 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	848.8	95UCL	7.4E+06	--	1E-04	--
24819 PANAMA AVE	1-Methylnaphthalene	mg/kg	7.434	95UCL	3.5E+05	1.4E+03	2E-05	5E-09
24819 PANAMA AVE	2-Methylnaphthalene	mg/kg	13.27	95UCL	2.0E+04	--	7E-04	--
24819 PANAMA AVE	Benzene	µg/kg	178.7	95UCL	5.8E+06	1.9E+04	3E-05	9E-09

Appendix E
Detailed Risk Calculations

Table E-3
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Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24819 PANAMA AVE	Bromomethane	µg/kg	310	Max	7.7E+05	--	4E-04	--
24819 PANAMA AVE	Ethylbenzene	µg/kg	1667	95UCL	2.9E+08	4.2E+05	6E-06	4E-09
24819 PANAMA AVE	Naphthalene	mg/kg	3.798	95UCL	1.3E+04	3.5E+02	3E-04	1E-08
24819 PANAMA AVE	Pyrene	mg/kg	0.58	95UCL	1.5E+05	--	4E-06	--
24819 PANAMA AVE	Toluene	µg/kg	24	Max	4.2E+08	--	6E-08	--
24819 PANAMA AVE	TPH as Diesel	mg/kg	2908	95UCL	1.1E+05	--	3E-02	--
24819 PANAMA AVE	TPH as Gasoline	mg/kg	454.7	95UCL	6.6E+04	--	7E-03	--
24819 PANAMA AVE	TPH as Motor Oil	mg/kg	3462	95UCL	2.9E+05	--	1E-02	--
24819 PANAMA AVE	Xylenes, Total	µg/kg	1142	95UCL	4.9E+07	--	2E-05	--
24822 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	2	Max	2.1E+05	1.9E+03	1E-05	1E-09
24822 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	3.7	Max	7.2E+06	--	5E-07	--
24822 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.64	Max	7.4E+06	--	9E-08	--
24822 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00287	95UCL	3.5E+05	1.4E+03	8E-09	2E-12
24822 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00299	95UCL	2.0E+04	--	2E-07	--
24822 PANAMA AVE	Benzene	µg/kg	0.14	Max	5.8E+06	1.9E+04	2E-08	7E-12
24822 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.363	95UCL	2.1E+04	1.1E+02	2E-05	3E-09
24822 PANAMA AVE	Ethylbenzene	µg/kg	0.37	Max	2.9E+08	4.2E+05	1E-09	9E-13
24822 PANAMA AVE	Naphthalene	mg/kg	0.00289	95UCL	1.3E+04	3.5E+02	2E-07	8E-12
24822 PANAMA AVE	Pyrene	mg/kg	0.156	95UCL	1.5E+05	--	1E-06	--
24822 PANAMA AVE	Toluene	µg/kg	0.15	Max	4.2E+08	--	4E-10	--
24822 PANAMA AVE	TPH as Diesel	mg/kg	30	Max	1.1E+05	--	3E-04	--
24822 PANAMA AVE	TPH as Gasoline	mg/kg	0.061	Max	6.6E+04	--	9E-07	--
24822 PANAMA AVE	TPH as Motor Oil	mg/kg	110	Max	2.9E+05	--	4E-04	--
24822 PANAMA AVE	Xylenes, Total	µg/kg	0.59	Max	4.9E+07	--	1E-08	--
24823 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2272	95UCL	7.2E+06	--	3E-04	--
24823 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	753	95UCL	7.4E+06	--	1E-04	--
24823 PANAMA AVE	1-Methylnaphthalene	mg/kg	18.13	95UCL	3.5E+05	1.4E+03	5E-05	1E-08
24823 PANAMA AVE	2-Methylnaphthalene	mg/kg	28.59	95UCL	2.0E+04	--	1E-03	--
24823 PANAMA AVE	Benzene	µg/kg	173.7	95UCL	5.8E+06	1.9E+04	3E-05	9E-09
24823 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.12	Max	2.1E+04	1.1E+02	6E-06	1E-09
24823 PANAMA AVE	Ethylbenzene	µg/kg	514.7	95UCL	2.9E+08	4.2E+05	2E-06	1E-09
24823 PANAMA AVE	Naphthalene	mg/kg	9.018	95UCL	1.3E+04	3.5E+02	7E-04	3E-08
24823 PANAMA AVE	Pyrene	mg/kg	4.067	95UCL	1.5E+05	--	3E-05	--
24823 PANAMA AVE	Toluene	µg/kg	32.64	95UCL	4.2E+08	--	8E-08	--
24823 PANAMA AVE	TPH as Diesel	mg/kg	12551	95UCL	1.1E+05	--	1E-01	--
24823 PANAMA AVE	TPH as Gasoline	mg/kg	236.2	95UCL	6.6E+04	--	4E-03	--
24823 PANAMA AVE	TPH as Motor Oil	mg/kg	18203	95UCL	2.9E+05	--	6E-02	--
24823 PANAMA AVE	Xylenes, Total	µg/kg	1724	95UCL	4.9E+07	--	4E-05	--
24825 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.12	Max	7.2E+06	--	2E-08	--
24825 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0012	Max	3.5E+05	1.4E+03	3E-09	9E-13
24825 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.00105	95UCL	2.0E+04	--	5E-08	--
24825 NEPTUNE AVE	Benzene	µg/kg	0.16	Max	5.8E+06	1.9E+04	3E-08	8E-12
24825 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.284	95UCL	2.1E+04	1.1E+02	1E-05	3E-09
24825 NEPTUNE AVE	Naphthalene	mg/kg	0.00812	95UCL	1.3E+04	3.5E+02	6E-07	2E-11
24825 NEPTUNE AVE	Pyrene	mg/kg	0.00844	95UCL	1.5E+05	--	6E-08	--
24825 NEPTUNE AVE	Toluene	µg/kg	0.606	95UCL	4.2E+08	--	1E-09	--
24825 NEPTUNE AVE	TPH as Diesel	mg/kg	13.33	95UCL	1.1E+05	--	1E-04	--
24825 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.113	95UCL	6.6E+04	--	2E-06	--
24825 NEPTUNE AVE	TPH as Motor Oil	mg/kg	41.05	95UCL	2.9E+05	--	1E-04	--
24828 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0049	Max	3.5E+05	1.4E+03	1E-08	4E-12
24828 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00241	95UCL	2.0E+04	--	1E-07	--
24828 PANAMA AVE	Benzene	µg/kg	0.15	Max	5.8E+06	1.9E+04	3E-08	8E-12
24828 PANAMA AVE	Naphthalene	mg/kg	0.0041	Max	1.3E+04	3.5E+02	3E-07	1E-11
24828 PANAMA AVE	Pyrene	mg/kg	0.0273	95UCL	1.5E+05	--	2E-07	--
24828 PANAMA AVE	TPH as Diesel	mg/kg	18	Max	1.1E+05	--	2E-04	--
24828 PANAMA AVE	TPH as Motor Oil	mg/kg	33	Max	2.9E+05	--	1E-04	--
24829 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	3032	95UCL	7.2E+06	--	4E-04	--
24829 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	200	95UCL	7.4E+06	--	3E-05	--
24829 PANAMA AVE	1-Methylnaphthalene	mg/kg	5.888	95UCL	3.5E+05	1.4E+03	2E-05	4E-09
24829 PANAMA AVE	2-Methylnaphthalene	mg/kg	9.488	95UCL	2.0E+04	--	5E-04	--
24829 PANAMA AVE	Benzene	µg/kg	52.73	95UCL	5.8E+06	1.9E+04	9E-06	3E-09
24829 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.54	Max	1.1E+05	3.0E+03	5E-06	2E-10

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24829 PANAMA AVE	Chromium, Hexavalent	mg/kg	4.8	Max	2.1E+04	1.1E+02	2E-04	4E-08
24829 PANAMA AVE	Ethylbenzene	µg/kg	521.9	95UCL	2.9E+08	4.2E+05	2E-06	1E-09
24829 PANAMA AVE	Naphthalene	mg/kg	3.145	95UCL	1.3E+04	3.5E+02	2E-04	9E-09
24829 PANAMA AVE	Pyrene	mg/kg	0.78	95UCL	1.5E+05	--	5E-06	--
24829 PANAMA AVE	Toluene	µg/kg	1.094	95UCL	4.2E+08	--	3E-09	--
24829 PANAMA AVE	TPH as Diesel	mg/kg	2803	95UCL	1.1E+05	--	3E-02	--
24829 PANAMA AVE	TPH as Gasoline	mg/kg	201.9	95UCL	6.6E+04	--	3E-03	--
24829 PANAMA AVE	TPH as Motor Oil	mg/kg	2973	95UCL	2.9E+05	--	1E-02	--
24829 PANAMA AVE	Xylenes, Total	µg/kg	670	95UCL	4.9E+07	--	1E-05	--
24832 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.65	Max	7.2E+06	--	9E-08	--
24832 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.13	Max	7.4E+06	--	2E-08	--
24832 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0118	95UCL	3.5E+05	1.4E+03	3E-08	9E-12
24832 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0495	95UCL	2.0E+04	--	3E-06	--
24832 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	2.1E+04	1.1E+02	1E-05	3E-09
24832 PANAMA AVE	Ethylbenzene	µg/kg	0.14	Max	2.9E+08	4.2E+05	5E-10	3E-13
24832 PANAMA AVE	Naphthalene	mg/kg	0.0462	95UCL	1.3E+04	3.5E+02	4E-06	1E-10
24832 PANAMA AVE	Pyrene	mg/kg	0.188	95UCL	1.5E+05	--	1E-06	--
24832 PANAMA AVE	Toluene	µg/kg	0.23	Max	4.2E+08	--	6E-10	--
24832 PANAMA AVE	TPH as Diesel	mg/kg	153.8	95UCL	1.1E+05	--	1E-03	--
24832 PANAMA AVE	TPH as Gasoline	mg/kg	0.2	Max	6.6E+04	--	3E-06	--
24832 PANAMA AVE	TPH as Motor Oil	mg/kg	218.2	95UCL	2.9E+05	--	8E-04	--
24832 PANAMA AVE	Vinyl Chloride	µg/kg	0.34	Max	6.4E+06	2.8E+03	5E-08	1E-10
24832 PANAMA AVE	Xylenes, Total	µg/kg	0.72	Max	4.9E+07	--	2E-08	--
24833 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	5713	95UCL	7.2E+06	--	8E-04	--
24833 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	1738	95UCL	7.4E+06	--	2E-04	--
24833 PANAMA AVE	1-Methylnaphthalene	mg/kg	9.156	95UCL	3.5E+05	1.4E+03	3E-05	7E-09
24833 PANAMA AVE	2-Methylnaphthalene	mg/kg	14.53	95UCL	2.0E+04	--	7E-04	--
24833 PANAMA AVE	Benzene	µg/kg	172	95UCL	5.8E+06	1.9E+04	3E-05	9E-09
24833 PANAMA AVE	Ethylbenzene	µg/kg	4642	95UCL	2.9E+08	4.2E+05	2E-05	1E-08
24833 PANAMA AVE	Naphthalene	mg/kg	7.838	95UCL	1.3E+04	3.5E+02	6E-04	2E-08
24833 PANAMA AVE	Pyrene	mg/kg	2.196	95UCL	1.5E+05	--	2E-05	--
24833 PANAMA AVE	Toluene	µg/kg	110	Max	4.2E+08	--	3E-07	--
24833 PANAMA AVE	TPH as Diesel	mg/kg	6078	95UCL	1.1E+05	--	6E-02	--
24833 PANAMA AVE	TPH as Gasoline	mg/kg	604.4	95UCL	6.6E+04	--	9E-03	--
24833 PANAMA AVE	TPH as Motor Oil	mg/kg	4306	95UCL	2.9E+05	--	2E-02	--
24833 PANAMA AVE	Xylenes, Total	µg/kg	10601	95UCL	4.9E+07	--	2E-04	--
24838 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.44	Max	7.2E+06	--	6E-08	--
24838 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.044	Max	3.5E+05	1.4E+03	1E-07	3E-11
24838 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.155	95UCL	2.0E+04	--	8E-06	--
24838 PANAMA AVE	Benzene	µg/kg	0.14	Max	5.8E+06	1.9E+04	2E-08	7E-12
24838 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.32	Max	2.1E+04	1.1E+02	2E-05	3E-09
24838 PANAMA AVE	Naphthalene	mg/kg	0.039	Max	1.3E+04	3.5E+02	3E-06	1E-10
24838 PANAMA AVE	Pyrene	mg/kg	0.657	95UCL	1.5E+05	--	4E-06	--
24838 PANAMA AVE	Toluene	µg/kg	0.15	Max	4.2E+08	--	4E-10	--
24838 PANAMA AVE	TPH as Diesel	mg/kg	183.3	95UCL	1.1E+05	--	2E-03	--
24838 PANAMA AVE	TPH as Gasoline	mg/kg	0.099	Max	6.6E+04	--	2E-06	--
24838 PANAMA AVE	TPH as Motor Oil	mg/kg	411.8	95UCL	2.9E+05	--	1E-03	--
24838 PANAMA AVE	Xylenes, Total	µg/kg	0.25	Max	4.9E+07	--	5E-09	--
24904 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	2.63	95UCL	7.2E+06	--	4E-07	--
24904 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.335	95UCL	7.4E+06	--	5E-08	--
24904 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.217	95UCL	3.5E+05	1.4E+03	4E-06	9E-10
24904 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	1.799	95UCL	2.0E+04	--	9E-05	--
24904 NEPTUNE AVE	Benzene	µg/kg	0.263	95UCL	5.8E+06	1.9E+04	5E-08	1E-11
24904 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.34	Max	2.1E+04	1.1E+02	2E-05	3E-09
24904 NEPTUNE AVE	Ethylbenzene	µg/kg	1.924	95UCL	2.9E+08	4.2E+05	7E-09	5E-12
24904 NEPTUNE AVE	Naphthalene	mg/kg	0.508	95UCL	1.3E+04	3.5E+02	4E-05	2E-09
24904 NEPTUNE AVE	Pyrene	mg/kg	0.966	95UCL	1.5E+05	--	6E-06	--
24904 NEPTUNE AVE	Toluene	µg/kg	0.445	95UCL	4.2E+08	--	1E-09	--
24904 NEPTUNE AVE	TPH as Diesel	mg/kg	1747	95UCL	1.1E+05	--	2E-02	--
24904 NEPTUNE AVE	TPH as Gasoline	mg/kg	15.6	95UCL	6.6E+04	--	2E-04	--
24904 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2909	95UCL	2.9E+05	--	1E-02	--
24904 NEPTUNE AVE	Xylenes, Total	µg/kg	2.722	95UCL	4.9E+07	--	6E-08	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24912 NEPTUNE AVE	1,2,3-Trichloropropane	µg/kg	0.71	Max	2.1E+05	1.9E+03	3E-06	4E-10
24912 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	26	Max	7.2E+06	--	4E-06	--
24912 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	7.9	Max	7.4E+06	--	1E-06	--
24912 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.6	Max	3.5E+05	1.4E+03	2E-06	4E-10
24912 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.248	95UCL	2.0E+04	--	1E-05	--
24912 NEPTUNE AVE	Benzene	µg/kg	0.524	95UCL	5.8E+06	1.9E+04	9E-08	3E-11
24912 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.321	95UCL	2.1E+04	1.1E+02	2E-05	3E-09
24912 NEPTUNE AVE	Ethylbenzene	µg/kg	49	Max	2.9E+08	4.2E+05	2E-07	1E-10
24912 NEPTUNE AVE	Naphthalene	mg/kg	0.106	95UCL	1.3E+04	3.5E+02	8E-06	3E-10
24912 NEPTUNE AVE	Pyrene	mg/kg	0.47	95UCL	1.5E+05	--	3E-06	--
24912 NEPTUNE AVE	Toluene	µg/kg	0.4	Max	4.2E+08	--	1E-09	--
24912 NEPTUNE AVE	TPH as Diesel	mg/kg	918	95UCL	1.1E+05	--	8E-03	--
24912 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.27	Max	6.6E+04	--	4E-06	--
24912 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1363	95UCL	2.9E+05	--	5E-03	--
24912 NEPTUNE AVE	Xylenes, Total	µg/kg	4.5	Max	4.9E+07	--	9E-08	--
301 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.28	Max	7.2E+06	--	4E-08	--
301 244TH ST	1-Methylnaphthalene	mg/kg	0.0092	Max	3.5E+05	1.4E+03	3E-08	7E-12
301 244TH ST	2-Methylnaphthalene	mg/kg	0.019	Max	2.0E+04	--	1E-06	--
301 244TH ST	Benzene	µg/kg	0.21	Max	5.8E+06	1.9E+04	4E-08	1E-11
301 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.49	Max	1.1E+05	3.0E+03	5E-06	2E-10
301 244TH ST	Chromium, Hexavalent	mg/kg	0.66	Max	2.1E+04	1.1E+02	3E-05	6E-09
301 244TH ST	Cobalt	mg/kg	17.4	Max	2.1E+03	2.7E+06	9E-03	6E-12
301 244TH ST	Naphthalene	mg/kg	0.013	Max	1.3E+04	3.5E+02	1E-06	4E-11
301 244TH ST	Pyrene	mg/kg	0.061	Max	1.5E+05	--	4E-07	--
301 244TH ST	Tetrachloroethene	µg/kg	0.14	Max	7.5E+06	4.9E+04	2E-08	3E-12
301 244TH ST	Toluene	µg/kg	0.27	Max	4.2E+08	--	6E-10	--
301 244TH ST	TPH as Gasoline	mg/kg	0.099	Max	6.6E+04	--	2E-06	--
301 244TH ST	Xylenes, Total	µg/kg	0.19	Max	4.9E+07	--	4E-09	--
305 244TH ST	1,2,3-Trichloropropane	µg/kg	0.6	Max	2.1E+05	1.9E+03	3E-06	3E-10
305 244TH ST	1-Methylnaphthalene	mg/kg	0.0042	Max	3.5E+05	1.4E+03	1E-08	3E-12
305 244TH ST	2-Methylnaphthalene	mg/kg	0.0068	Max	2.0E+04	--	3E-07	--
305 244TH ST	Benzene	µg/kg	0.15	Max	5.8E+06	1.9E+04	3E-08	8E-12
305 244TH ST	Bromomethane	µg/kg	1.7	Max	7.7E+05	--	2E-06	--
305 244TH ST	Chromium, Hexavalent	mg/kg	0.35	Max	2.1E+04	1.1E+02	2E-05	3E-09
305 244TH ST	Cobalt	mg/kg	12.66	95UCL	2.1E+03	2.7E+06	6E-03	5E-12
305 244TH ST	Naphthalene	mg/kg	0.0027	Max	1.3E+04	3.5E+02	2E-07	8E-12
305 244TH ST	Pyrene	mg/kg	0.0017	Max	1.5E+05	--	1E-08	--
305 244TH ST	TPH as Gasoline	mg/kg	0.076	Max	6.6E+04	--	1E-06	--
305 244TH ST	TPH as Motor Oil	mg/kg	28	Max	2.9E+05	--	1E-04	--
311 244TH ST	1,2,4-Trimethylbenzene	µg/kg	174.8	95UCL	7.2E+06	--	2E-05	--
311 244TH ST	1,3,5-Trimethylbenzene	µg/kg	46	Max	7.4E+06	--	6E-06	--
311 244TH ST	1-Methylnaphthalene	mg/kg	20	Max	3.5E+05	1.4E+03	6E-05	2E-08
311 244TH ST	2-Methylnaphthalene	mg/kg	10.39	95UCL	2.0E+04	--	5E-04	--
311 244TH ST	Benzene	µg/kg	11.64	95UCL	5.8E+06	1.9E+04	2E-06	6E-10
311 244TH ST	Benzo (a) Anthracene	mg/kg	0.508	95UCL	--	1.4E+02	--	4E-09
311 244TH ST	Benzo (a) Pyrene	mg/kg	0.203	95UCL	--	1.4E+01	--	2E-08
311 244TH ST	Benzo (b) Fluoranthene	mg/kg	0.00456	95UCL	--	1.4E+02	--	3E-11
311 244TH ST	Benzo (k) Fluoranthene	mg/kg	0.00393	95UCL	--	1.4E+02	--	3E-11
311 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.3	Max	1.1E+05	3.0E+03	3E-06	1E-10
311 244TH ST	Bromomethane	µg/kg	2.1	Max	7.7E+05	--	3E-06	--
311 244TH ST	Chrysene	mg/kg	1.522	95UCL	--	1.4E+03	--	1E-09
311 244TH ST	Cobalt	mg/kg	8.754	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
311 244TH ST	Dibenz (a,h) Anthracene	mg/kg	0.0028	Max	--	9.7E+00	--	3E-10
311 244TH ST	Ethylbenzene	µg/kg	220	Max	2.9E+08	4.2E+05	8E-07	5E-10
311 244TH ST	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.00363	95UCL	--	1.4E+02	--	3E-11
311 244TH ST	Naphthalene	mg/kg	3.871	95UCL	1.3E+04	3.5E+02	3E-04	1E-08
311 244TH ST	Pyrene	mg/kg	3.972	95UCL	1.5E+05	--	3E-05	--
311 244TH ST	Toluene	µg/kg	17.45	95UCL	4.2E+08	--	4E-08	--
311 244TH ST	TPH as Diesel	mg/kg	3918	95UCL	1.1E+05	--	4E-02	--
311 244TH ST	TPH as Gasoline	mg/kg	290	Max	6.6E+04	--	4E-03	--
311 244TH ST	TPH as Motor Oil	mg/kg	4079	95UCL	2.9E+05	--	1E-02	--
311 244TH ST	Vanadium	mg/kg	35.46	95UCL	3.4E+04	--	1E-03	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
311 244TH ST	Xylenes, Total	µg/kg	0.44	Max	4.9E+07	--	9E-09	--
317 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.13	Max	7.2E+06	--	2E-08	--
317 244TH ST	1-Methylnaphthalene	mg/kg	0.024	Max	3.5E+05	1.4E+03	7E-08	2E-11
317 244TH ST	2-Methylnaphthalene	mg/kg	0.00501	95UCL	2.0E+04	--	3E-07	--
317 244TH ST	Benzene	µg/kg	0.31	Max	5.8E+06	1.9E+04	5E-08	2E-11
317 244TH ST	Cobalt	mg/kg	10.19	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
317 244TH ST	Naphthalene	mg/kg	0.00338	95UCL	1.3E+04	3.5E+02	3E-07	1E-11
317 244TH ST	Pyrene	mg/kg	0.0159	95UCL	1.5E+05	--	1E-07	--
317 244TH ST	Toluene	µg/kg	0.193	95UCL	4.2E+08	--	5E-10	--
317 244TH ST	TPH as Diesel	mg/kg	360	Max	1.1E+05	--	3E-03	--
317 244TH ST	TPH as Gasoline	mg/kg	2.1	Max	6.6E+04	--	3E-05	--
317 244TH ST	TPH as Motor Oil	mg/kg	219.9	95UCL	2.9E+05	--	8E-04	--
321 244TH ST	2-Methylnaphthalene	mg/kg	0.0009	Max	2.0E+04	--	5E-08	--
321 244TH ST	Benzene	µg/kg	0.34	Max	5.8E+06	1.9E+04	6E-08	2E-11
321 244TH ST	Cobalt	mg/kg	10.45	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
321 244TH ST	Naphthalene	mg/kg	0.0026	Max	1.3E+04	3.5E+02	2E-07	8E-12
321 244TH ST	Pyrene	mg/kg	0.0465	95UCL	1.5E+05	--	3E-07	--
321 244TH ST	Toluene	µg/kg	1.8	Max	4.2E+08	--	4E-09	--
321 244TH ST	TPH as Diesel	mg/kg	15	Max	1.1E+05	--	1E-04	--
321 244TH ST	TPH as Gasoline	mg/kg	0.21	Max	6.6E+04	--	3E-06	--
321 244TH ST	TPH as Motor Oil	mg/kg	28	Max	2.9E+05	--	1E-04	--
321 244TH ST	Vanadium	mg/kg	44.22	95UCL	3.4E+04	--	1E-03	--
327 244TH ST	Benzene	µg/kg	0.2	Max	5.8E+06	1.9E+04	3E-08	1E-11
327 244TH ST	Cobalt	mg/kg	12.6	Max	2.1E+03	2.7E+06	6E-03	5E-12
327 244TH ST	Naphthalene	mg/kg	0.0046	Max	1.3E+04	3.5E+02	4E-07	1E-11
327 244TH ST	Pyrene	mg/kg	0.0055	Max	1.5E+05	--	4E-08	--
327 244TH ST	TPH as Diesel	mg/kg	11	Max	1.1E+05	--	1E-04	--
327 244TH ST	Vanadium	mg/kg	51.9	Max	3.4E+04	--	2E-03	--
331 244TH ST	1-Methylnaphthalene	mg/kg	0.017	Max	3.5E+05	1.4E+03	5E-08	1E-11
331 244TH ST	2,4-Dinitrotoluene	mg/kg	0.34	Max	1.1E+04	1.4E+02	3E-05	3E-09
331 244TH ST	2-Methylnaphthalene	mg/kg	0.032	Max	2.0E+04	--	2E-06	--
331 244TH ST	Cobalt	mg/kg	12.9	Max	2.1E+03	2.7E+06	6E-03	5E-12
331 244TH ST	Naphthalene	mg/kg	0.019	Max	1.3E+04	3.5E+02	1E-06	6E-11
331 244TH ST	Pyrene	mg/kg	0.84	Max	1.5E+05	--	6E-06	--
331 244TH ST	Vanadium	mg/kg	59.8	Max	3.4E+04	--	2E-03	--
337 244TH ST	1-Methylnaphthalene	mg/kg	0.0066	Max	3.5E+05	1.4E+03	2E-08	5E-12
337 244TH ST	2-Methylnaphthalene	mg/kg	0.011	Max	2.0E+04	--	6E-07	--
337 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	1.1E+05	3.0E+03	3E-06	1E-10
337 244TH ST	Cobalt	mg/kg	8.48	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
337 244TH ST	Naphthalene	mg/kg	0.023	Max	1.3E+04	3.5E+02	2E-06	7E-11
337 244TH ST	Pyrene	mg/kg	0.0049	Max	1.5E+05	--	3E-08	--
337 244TH ST	Toluene	µg/kg	0.42	Max	4.2E+08	--	1E-09	--
337 244TH ST	TPH as Gasoline	mg/kg	0.15	Max	6.6E+04	--	2E-06	--
337 244TH ST	TPH as Motor Oil	mg/kg	24	Max	2.9E+05	--	8E-05	--
337 244TH ST	Vanadium	mg/kg	41.34	95UCL	3.4E+04	--	1E-03	--
341 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.16	Max	7.2E+06	--	2E-08	--
341 244TH ST	1-Methylnaphthalene	mg/kg	0.0016	Max	3.5E+05	1.4E+03	5E-09	1E-12
341 244TH ST	2-Methylnaphthalene	mg/kg	0.0018	Max	2.0E+04	--	9E-08	--
341 244TH ST	Benzene	µg/kg	0.342	95UCL	5.8E+06	1.9E+04	6E-08	2E-11
341 244TH ST	Bromomethane	µg/kg	13	Max	7.7E+05	--	2E-05	--
341 244TH ST	Cobalt	mg/kg	8.612	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
341 244TH ST	Ethylbenzene	µg/kg	0.16	Max	2.9E+08	4.2E+05	6E-10	4E-13
341 244TH ST	Naphthalene	mg/kg	0.0012	Max	1.3E+04	3.5E+02	9E-08	4E-12
341 244TH ST	Pyrene	mg/kg	0.0863	95UCL	1.5E+05	--	6E-07	--
341 244TH ST	Toluene	µg/kg	0.183	95UCL	4.2E+08	--	4E-10	--
341 244TH ST	TPH as Diesel	mg/kg	37	Max	1.1E+05	--	3E-04	--
341 244TH ST	TPH as Motor Oil	mg/kg	29	Max	2.9E+05	--	1E-04	--
341 244TH ST	Xylenes, Total	µg/kg	0.22	Max	4.9E+07	--	5E-09	--
344 249TH ST	1,2,4-Trimethylbenzene	µg/kg	17.6	95UCL	7.2E+06	--	2E-06	--
344 249TH ST	1,3,5-Trimethylbenzene	µg/kg	14	Max	7.4E+06	--	2E-06	--
344 249TH ST	1-Methylnaphthalene	mg/kg	0.0354	95UCL	3.5E+05	1.4E+03	1E-07	3E-11
344 249TH ST	2-Methylnaphthalene	mg/kg	0.0379	95UCL	2.0E+04	--	2E-06	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
344 249TH ST	Benzene	µg/kg	0.546	95UCL	5.8E+06	1.9E+04	9E-08	3E-11
344 249TH ST	Ethylbenzene	µg/kg	3.817	95UCL	2.9E+08	4.2E+05	1E-08	9E-12
344 249TH ST	Naphthalene	mg/kg	0.0103	95UCL	1.3E+04	3.5E+02	8E-07	3E-11
344 249TH ST	Pyrene	mg/kg	0.589	95UCL	1.5E+05	--	4E-06	--
344 249TH ST	Toluene	µg/kg	0.58	Max	4.2E+08	--	1E-09	--
344 249TH ST	TPH as Diesel	mg/kg	365.7	95UCL	1.1E+05	--	3E-03	--
344 249TH ST	TPH as Gasoline	mg/kg	0.27	Max	6.6E+04	--	4E-06	--
344 249TH ST	TPH as Motor Oil	mg/kg	923.6	95UCL	2.9E+05	--	3E-03	--
344 249TH ST	Xylenes, Total	µg/kg	7.2	Max	4.9E+07	--	2E-07	--
345 249TH ST	1,2,4-Trimethylbenzene	µg/kg	63.39	95UCL	7.2E+06	--	9E-06	--
345 249TH ST	1,3,5-Trimethylbenzene	µg/kg	4.929	95UCL	7.4E+06	--	7E-07	--
345 249TH ST	1-Methylnaphthalene	mg/kg	5.92	95UCL	3.5E+05	1.4E+03	2E-05	4E-09
345 249TH ST	2-Methylnaphthalene	mg/kg	5.441	95UCL	2.0E+04	--	3E-04	--
345 249TH ST	Benzene	µg/kg	16.22	95UCL	5.8E+06	1.9E+04	3E-06	8E-10
345 249TH ST	Chromium, Hexavalent	mg/kg	0.29	95UCL	2.1E+04	1.1E+02	1E-05	3E-09
345 249TH ST	Ethylbenzene	µg/kg	33.93	95UCL	2.9E+08	4.2E+05	1E-07	8E-11
345 249TH ST	Naphthalene	mg/kg	0.637	95UCL	1.3E+04	3.5E+02	5E-05	2E-09
345 249TH ST	Pyrene	mg/kg	5.719	95UCL	1.5E+05	--	4E-05	--
345 249TH ST	Toluene	µg/kg	13.82	95UCL	4.2E+08	--	3E-08	--
345 249TH ST	TPH as Diesel	mg/kg	6208	95UCL	1.1E+05	--	6E-02	--
345 249TH ST	TPH as Gasoline	mg/kg	15.38	95UCL	6.6E+04	--	2E-04	--
345 249TH ST	TPH as Motor Oil	mg/kg	8454	95UCL	2.9E+05	--	3E-02	--
345 249TH ST	Xylenes, Total	µg/kg	62.03	95UCL	4.9E+07	--	1E-06	--
347 244TH ST	2-Methylnaphthalene	mg/kg	0.001	Max	2.0E+04	--	5E-08	--
347 244TH ST	Benzene	µg/kg	1	Max	5.8E+06	1.9E+04	2E-07	5E-11
347 244TH ST	Chromium, Hexavalent	mg/kg	0.32	Max	2.1E+04	1.1E+02	2E-05	3E-09
347 244TH ST	Cobalt	mg/kg	8.471	95UCL	2.1E+03	2.7E+06	4E-03	3E-12
347 244TH ST	Ethylbenzene	µg/kg	0.41	Max	2.9E+08	4.2E+05	1E-09	1E-12
347 244TH ST	Naphthalene	mg/kg	0.005	Max	1.3E+04	3.5E+02	4E-07	1E-11
347 244TH ST	Pyrene	mg/kg	0.018	Max	1.5E+05	--	1E-07	--
347 244TH ST	Toluene	µg/kg	0.41	Max	4.2E+08	--	1E-09	--
347 244TH ST	TPH as Diesel	mg/kg	36	Max	1.1E+05	--	3E-04	--
347 244TH ST	TPH as Motor Oil	mg/kg	110	Max	2.9E+05	--	4E-04	--
348 248TH ST	1,2,4-Trimethylbenzene	µg/kg	6327	95UCL	7.2E+06	--	9E-04	--
348 248TH ST	1,3,5-Trimethylbenzene	µg/kg	4500	Max	7.4E+06	--	6E-04	--
348 248TH ST	1-Methylnaphthalene	mg/kg	56.36	95UCL	3.5E+05	1.4E+03	2E-04	4E-08
348 248TH ST	2-Methylnaphthalene	mg/kg	51.64	95UCL	2.0E+04	--	3E-03	--
348 248TH ST	Benzene	µg/kg	1391	95UCL	5.8E+06	1.9E+04	2E-04	7E-08
348 248TH ST	Bromomethane	µg/kg	2.4	Max	7.7E+05	--	3E-06	--
348 248TH ST	Ethylbenzene	µg/kg	4200	Max	2.9E+08	4.2E+05	2E-05	1E-08
348 248TH ST	Naphthalene	mg/kg	21.82	95UCL	1.3E+04	3.5E+02	2E-03	6E-08
348 248TH ST	Pyrene	mg/kg	21.59	95UCL	1.5E+05	--	1E-04	--
348 248TH ST	Toluene	µg/kg	1100	Max	4.2E+08	--	3E-06	--
348 248TH ST	TPH as Diesel	mg/kg	14575	95UCL	1.1E+05	--	1E-01	--
348 248TH ST	TPH as Gasoline	mg/kg	963.7	95UCL	6.6E+04	--	2E-02	--
348 248TH ST	TPH as Motor Oil	mg/kg	13016	95UCL	2.9E+05	--	5E-02	--
348 248TH ST	Xylenes, Total	µg/kg	5000	95UCL	4.9E+07	--	1E-04	--
348 249TH ST	1,2,4-Trimethylbenzene	µg/kg	102.4	95UCL	7.2E+06	--	1E-05	--
348 249TH ST	1,3,5-Trimethylbenzene	µg/kg	41.24	95UCL	7.4E+06	--	6E-06	--
348 249TH ST	1-Methylnaphthalene	mg/kg	0.232	95UCL	3.5E+05	1.4E+03	7E-07	2E-10
348 249TH ST	2-Methylnaphthalene	mg/kg	0.28	95UCL	2.0E+04	--	1E-05	--
348 249TH ST	Benzene	µg/kg	2.589	95UCL	5.8E+06	1.9E+04	4E-07	1E-10
348 249TH ST	Chromium, Hexavalent	mg/kg	0.619	95UCL	2.1E+04	1.1E+02	3E-05	6E-09
348 249TH ST	Ethylbenzene	µg/kg	11.37	95UCL	2.9E+08	4.2E+05	4E-08	3E-11
348 249TH ST	Naphthalene	mg/kg	0.126	95UCL	1.3E+04	3.5E+02	1E-05	4E-10
348 249TH ST	Pyrene	mg/kg	0.642	95UCL	1.5E+05	--	4E-06	--
348 249TH ST	Toluene	µg/kg	0.592	95UCL	4.2E+08	--	1E-09	--
348 249TH ST	TPH as Diesel	mg/kg	1688	95UCL	1.1E+05	--	2E-02	--
348 249TH ST	TPH as Gasoline	mg/kg	0.209	95UCL	6.6E+04	--	3E-06	--
348 249TH ST	TPH as Motor Oil	mg/kg	3428	95UCL	2.9E+05	--	1E-02	--
348 249TH ST	Xylenes, Total	µg/kg	28.94	95UCL	4.9E+07	--	6E-07	--
351 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.23	Max	7.2E+06	--	3E-08	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
351 244TH ST	1-Methylnaphthalene	mg/kg	0.0034	Max	3.5E+05	1.4E+03	1E-08	3E-12
351 244TH ST	2-Methylnaphthalene	mg/kg	0.0062	Max	2.0E+04	--	3E-07	--
351 244TH ST	Benzene	µg/kg	0.2	Max	5.8E+06	1.9E+04	3E-08	1E-11
351 244TH ST	Chromium, Hexavalent	mg/kg	0.34	Max	2.1E+04	1.1E+02	2E-05	3E-09
351 244TH ST	Cobalt	mg/kg	10.46	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
351 244TH ST	Naphthalene	mg/kg	0.0037	Max	1.3E+04	3.5E+02	3E-07	1E-11
351 244TH ST	Pyrene	mg/kg	0.011	Max	1.5E+05	--	7E-08	--
351 244TH ST	Toluene	µg/kg	0.18	Max	4.2E+08	--	4E-10	--
352 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.693	95UCL	7.2E+06	--	1E-07	--
352 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.56	Max	7.4E+06	--	8E-08	--
352 249TH ST	1-Methylnaphthalene	mg/kg	0.449	95UCL	3.5E+05	1.4E+03	1E-06	3E-10
352 249TH ST	2-Methylnaphthalene	mg/kg	0.177	95UCL	2.0E+04	--	9E-06	--
352 249TH ST	Benzene	µg/kg	0.466	95UCL	5.8E+06	1.9E+04	8E-08	2E-11
352 249TH ST	Chromium, Hexavalent	mg/kg	0.293	95UCL	2.1E+04	1.1E+02	1E-05	3E-09
352 249TH ST	Ethylbenzene	µg/kg	0.264	95UCL	2.9E+08	4.2E+05	9E-10	6E-13
352 249TH ST	Naphthalene	mg/kg	0.0796	95UCL	1.3E+04	3.5E+02	6E-06	2E-10
352 249TH ST	Pyrene	mg/kg	1.54	95UCL	1.5E+05	--	1E-05	--
352 249TH ST	Toluene	µg/kg	25.46	95UCL	4.2E+08	--	6E-08	--
352 249TH ST	TPH as Diesel	mg/kg	3411	95UCL	1.1E+05	--	3E-02	--
352 249TH ST	TPH as Gasoline	mg/kg	0.263	95UCL	6.6E+04	--	4E-06	--
352 249TH ST	TPH as Motor Oil	mg/kg	5799	95UCL	2.9E+05	--	2E-02	--
352 249TH ST	Xylenes, Total	µg/kg	0.926	95UCL	4.9E+07	--	2E-08	--
353 249TH ST	1,2,4-Trimethylbenzene	µg/kg	11000	Max	7.2E+06	--	2E-03	--
353 249TH ST	1,3,5-Trimethylbenzene	µg/kg	2800	Max	7.4E+06	--	4E-04	--
353 249TH ST	1-Methylnaphthalene	mg/kg	2.6	Max	3.5E+05	1.4E+03	7E-06	2E-09
353 249TH ST	2-Methylnaphthalene	mg/kg	2.802	95UCL	2.0E+04	--	1E-04	--
353 249TH ST	Benzene	µg/kg	1200	Max	5.8E+06	1.9E+04	2E-04	6E-08
353 249TH ST	Chromium, Hexavalent	mg/kg	0.22	Max	2.1E+04	1.1E+02	1E-05	2E-09
353 249TH ST	Ethylbenzene	µg/kg	2600	Max	2.9E+08	4.2E+05	9E-06	6E-09
353 249TH ST	Naphthalene	mg/kg	6.3	Max	1.3E+04	3.5E+02	5E-04	2E-08
353 249TH ST	Pyrene	mg/kg	0.164	95UCL	1.5E+05	--	1E-06	--
353 249TH ST	Toluene	µg/kg	25	Max	4.2E+08	--	6E-08	--
353 249TH ST	TPH as Diesel	mg/kg	2500	Max	1.1E+05	--	2E-02	--
353 249TH ST	TPH as Gasoline	mg/kg	635	95UCL	6.6E+04	--	1E-02	--
353 249TH ST	TPH as Motor Oil	mg/kg	2300	Max	2.9E+05	--	8E-03	--
353 249TH ST	Xylenes, Total	µg/kg	8400	Max	4.9E+07	--	2E-04	--
354 248TH ST	1,2,4-Trimethylbenzene	µg/kg	2346	95UCL	7.2E+06	--	3E-04	--
354 248TH ST	1,3,5-Trimethylbenzene	µg/kg	298	95UCL	7.4E+06	--	4E-05	--
354 248TH ST	1-Methylnaphthalene	mg/kg	21.03	95UCL	3.5E+05	1.4E+03	6E-05	2E-08
354 248TH ST	2-Methylnaphthalene	mg/kg	33.64	95UCL	2.0E+04	--	2E-03	--
354 248TH ST	Benzene	µg/kg	560.7	95UCL	5.8E+06	1.9E+04	1E-04	3E-08
354 248TH ST	Ethylbenzene	µg/kg	1276	95UCL	2.9E+08	4.2E+05	5E-06	3E-09
354 248TH ST	Naphthalene	mg/kg	11.37	95UCL	1.3E+04	3.5E+02	9E-04	3E-08
354 248TH ST	Pyrene	mg/kg	4.465	95UCL	1.5E+05	--	3E-05	--
354 248TH ST	Toluene	µg/kg	31.78	95UCL	4.2E+08	--	8E-08	--
354 248TH ST	TPH as Diesel	mg/kg	13263	95UCL	1.1E+05	--	1E-01	--
354 248TH ST	TPH as Gasoline	mg/kg	521.9	95UCL	6.6E+04	--	8E-03	--
354 248TH ST	TPH as Motor Oil	mg/kg	14472	95UCL	2.9E+05	--	5E-02	--
354 248TH ST	Xylenes, Total	µg/kg	1170	95UCL	4.9E+07	--	2E-05	--
357 244TH ST	2-Methylnaphthalene	mg/kg	0.0006	Max	2.0E+04	--	3E-08	--
357 244TH ST	Chromium, Hexavalent	mg/kg	0.3	Max	2.1E+04	1.1E+02	2E-05	3E-09
357 244TH ST	Cobalt	mg/kg	9.746	95UCL	2.1E+03	2.7E+06	5E-03	4E-12
357 244TH ST	Naphthalene	mg/kg	0.0012	Max	1.3E+04	3.5E+02	9E-08	4E-12
357 244TH ST	Pyrene	mg/kg	0.0096	Max	1.5E+05	--	6E-08	--
357 244TH ST	TPH as Diesel	mg/kg	5.4	Max	1.1E+05	--	5E-05	--
357 249TH ST	1,2,4-Trimethylbenzene	µg/kg	4000	Max	7.2E+06	--	6E-04	--
357 249TH ST	1,3,5-Trimethylbenzene	µg/kg	640	Max	7.4E+06	--	9E-05	--
357 249TH ST	1-Methylnaphthalene	mg/kg	25	Max	3.5E+05	1.4E+03	7E-05	2E-08
357 249TH ST	2-Methylnaphthalene	mg/kg	38	Max	2.0E+04	--	2E-03	--
357 249TH ST	Benzene	µg/kg	630	Max	5.8E+06	1.9E+04	1E-04	3E-08
357 249TH ST	Bromomethane	µg/kg	550	Max	7.7E+05	--	7E-04	--
357 249TH ST	Ethylbenzene	µg/kg	1700	Max	2.9E+08	4.2E+05	6E-06	4E-09

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Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
357 249TH ST	Naphthalene	mg/kg	15	Max	1.3E+04	3.5E+02	1E-03	4E-08
357 249TH ST	Pyrene	mg/kg	3.1	Max	1.5E+05	--	2E-05	--
357 249TH ST	Toluene	µg/kg	84	Max	4.2E+08	--	2E-07	--
357 249TH ST	TPH as Diesel	mg/kg	13000	Max	1.1E+05	--	1E-01	--
357 249TH ST	TPH as Gasoline	mg/kg	690	Max	6.6E+04	--	1E-02	--
357 249TH ST	TPH as Motor Oil	mg/kg	16000	Max	2.9E+05	--	6E-02	--
357 249TH ST	Xylenes, Total	µg/kg	2000	Max	4.9E+07	--	4E-05	--
358 249TH ST	1,2,4-Trimethylbenzene	µg/kg	12	Max	7.2E+06	--	2E-06	--
358 249TH ST	1,3,5-Trimethylbenzene	µg/kg	4.2	Max	7.4E+06	--	6E-07	--
358 249TH ST	1-Methylnaphthalene	mg/kg	0.11	Max	3.5E+05	1.4E+03	3E-07	8E-11
358 249TH ST	2-Methylnaphthalene	mg/kg	0.0509	95UCL	2.0E+04	--	3E-06	--
358 249TH ST	Chromium, Hexavalent	mg/kg	0.32	Max	2.1E+04	1.1E+02	2E-05	3E-09
358 249TH ST	Ethylbenzene	µg/kg	1.6	Max	2.9E+08	4.2E+05	6E-09	4E-12
358 249TH ST	Naphthalene	mg/kg	0.023	Max	1.3E+04	3.5E+02	2E-06	7E-11
358 249TH ST	Pyrene	mg/kg	0.00696	95UCL	1.5E+05	--	5E-08	--
358 249TH ST	Toluene	µg/kg	1.1	Max	4.2E+08	--	3E-09	--
358 249TH ST	TPH as Diesel	mg/kg	65.1	95UCL	1.1E+05	--	6E-04	--
358 249TH ST	TPH as Gasoline	mg/kg	1.9	Max	6.6E+04	--	3E-05	--
358 249TH ST	TPH as Motor Oil	mg/kg	171	95UCL	2.9E+05	--	6E-04	--
358 249TH ST	Xylenes, Total	µg/kg	7.8	Max	4.9E+07	--	2E-07	--
360 248TH ST	1,2,4-Trimethylbenzene	µg/kg	182.5	95UCL	7.2E+06	--	3E-05	--
360 248TH ST	1,3,5-Trimethylbenzene	µg/kg	31.1	95UCL	7.4E+06	--	4E-06	--
360 248TH ST	1-Methylnaphthalene	mg/kg	8.895	95UCL	3.5E+05	1.4E+03	3E-05	7E-09
360 248TH ST	2-Methylnaphthalene	mg/kg	12.36	95UCL	2.0E+04	--	6E-04	--
360 248TH ST	Benzene	µg/kg	189.4	95UCL	5.8E+06	1.9E+04	3E-05	1E-08
360 248TH ST	Ethylbenzene	µg/kg	607.7	95UCL	2.9E+08	4.2E+05	2E-06	2E-09
360 248TH ST	Naphthalene	mg/kg	3.949	95UCL	1.3E+04	3.5E+02	3E-04	1E-08
360 248TH ST	Pyrene	mg/kg	1.391	95UCL	1.5E+05	--	9E-06	--
360 248TH ST	Toluene	µg/kg	15	Max	4.2E+08	--	4E-08	--
360 248TH ST	TPH as Diesel	mg/kg	5358	95UCL	1.1E+05	--	5E-02	--
360 248TH ST	TPH as Gasoline	mg/kg	395.8	95UCL	6.6E+04	--	6E-03	--
360 248TH ST	TPH as Motor Oil	mg/kg	5683	95UCL	2.9E+05	--	2E-02	--
360 248TH ST	Xylenes, Total	µg/kg	218.6	95UCL	4.9E+07	--	5E-06	--
361 244TH ST	2-Methylnaphthalene	mg/kg	0.0097	Max	2.0E+04	--	5E-07	--
361 244TH ST	Chromium, Hexavalent	mg/kg	0.22	Max	2.1E+04	1.1E+02	1E-05	2E-09
361 244TH ST	Cobalt	mg/kg	12.8	Max	2.1E+03	2.7E+06	6E-03	5E-12
361 244TH ST	Naphthalene	mg/kg	0.01	Max	1.3E+04	3.5E+02	8E-07	3E-11
361 244TH ST	Pyrene	mg/kg	0.042	Max	1.5E+05	--	3E-07	--
361 244TH ST	Xylenes, Total	µg/kg	0.21	Max	4.9E+07	--	4E-09	--
362 249TH ST	2-Methylnaphthalene	mg/kg	0.0008	Max	2.0E+04	--	4E-08	--
362 249TH ST	Benzene	µg/kg	0.18	Max	5.8E+06	1.9E+04	3E-08	9E-12
362 249TH ST	Chromium, Hexavalent	mg/kg	0.44	Max	2.1E+04	1.1E+02	2E-05	4E-09
362 249TH ST	Naphthalene	mg/kg	0.0014	Max	1.3E+04	3.5E+02	1E-07	4E-12
362 249TH ST	Pyrene	mg/kg	0.0036	Max	1.5E+05	--	2E-08	--
362 249TH ST	Toluene	µg/kg	0.34	Max	4.2E+08	--	8E-10	--
362 249TH ST	TPH as Diesel	mg/kg	6.7	Max	1.1E+05	--	6E-05	--
362 249TH ST	TPH as Gasoline	mg/kg	0.19	Max	6.6E+04	--	3E-06	--
362 249TH ST	TPH as Motor Oil	mg/kg	16	Max	2.9E+05	--	6E-05	--
362 249TH ST	Xylenes, Total	µg/kg	0.17	Max	4.9E+07	--	4E-09	--
363 249TH ST	1,2,4-Trimethylbenzene	µg/kg	240	Max	7.2E+06	--	3E-05	--
363 249TH ST	1,3,5-Trimethylbenzene	µg/kg	10	Max	7.4E+06	--	1E-06	--
363 249TH ST	1-Methylnaphthalene	mg/kg	26	Max	3.5E+05	1.4E+03	7E-05	2E-08
363 249TH ST	2-Methylnaphthalene	mg/kg	38	Max	2.0E+04	--	2E-03	--
363 249TH ST	Benzene	µg/kg	110	Max	5.8E+06	1.9E+04	2E-05	6E-09
363 249TH ST	Ethylbenzene	µg/kg	2100	Max	2.9E+08	4.2E+05	7E-06	5E-09
363 249TH ST	Naphthalene	mg/kg	16	Max	1.3E+04	3.5E+02	1E-03	5E-08
363 249TH ST	Pyrene	mg/kg	26	Max	1.5E+05	--	2E-04	--
363 249TH ST	Toluene	µg/kg	64	Max	4.2E+08	--	2E-07	--
363 249TH ST	TPH as Diesel	mg/kg	26000	Max	1.1E+05	--	2E-01	--
363 249TH ST	TPH as Gasoline	mg/kg	660	Max	6.6E+04	--	1E-02	--
363 249TH ST	TPH as Motor Oil	mg/kg	37000	Max	2.9E+05	--	1E-01	--
363 249TH ST	Xylenes, Total	µg/kg	630	Max	4.9E+07	--	1E-05	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
364 248TH ST	1,2,4-Trimethylbenzene	µg/kg	1017	95UCL	7.2E+06	--	1E-04	--
364 248TH ST	1,3,5-Trimethylbenzene	µg/kg	183.2	95UCL	7.4E+06	--	3E-05	--
364 248TH ST	1-Methylnaphthalene	mg/kg	2.06	95UCL	3.5E+05	1.4E+03	6E-06	2E-09
364 248TH ST	2-Methylnaphthalene	mg/kg	3.906	95UCL	2.0E+04	--	2E-04	--
364 248TH ST	Benzene	µg/kg	50.43	95UCL	5.8E+06	1.9E+04	9E-06	3E-09
364 248TH ST	Ethylbenzene	µg/kg	524.8	95UCL	2.9E+08	4.2E+05	2E-06	1E-09
364 248TH ST	Naphthalene	mg/kg	2.525	95UCL	1.3E+04	3.5E+02	2E-04	7E-09
364 248TH ST	Pyrene	mg/kg	1.201	95UCL	1.5E+05	--	8E-06	--
364 248TH ST	Toluene	µg/kg	0.63	Max	4.2E+08	--	2E-09	--
364 248TH ST	TPH as Diesel	mg/kg	3478	95UCL	1.1E+05	--	3E-02	--
364 248TH ST	TPH as Gasoline	mg/kg	267.4	95UCL	6.6E+04	--	4E-03	--
364 248TH ST	TPH as Motor Oil	mg/kg	5125	95UCL	2.9E+05	--	2E-02	--
364 248TH ST	Xylenes, Total	µg/kg	514.2	95UCL	4.9E+07	--	1E-05	--
367 244TH ST	Pyrene	mg/kg	0.03	Max	1.5E+05	--	2E-07	--
367 244TH ST	Toluene	µg/kg	0.16	Max	4.2E+08	--	4E-10	--
367 244TH ST	TPH as Diesel	mg/kg	68	Max	1.1E+05	--	6E-04	--
367 244TH ST	TPH as Motor Oil	mg/kg	160	Max	2.9E+05	--	6E-04	--
367 249TH ST	1,2,3-Trichloropropane	µg/kg	12	Max	2.1E+05	1.9E+03	6E-05	6E-09
367 249TH ST	1,2,4-Trimethylbenzene	µg/kg	260.7	95UCL	7.2E+06	--	4E-05	--
367 249TH ST	1,3,5-Trimethylbenzene	µg/kg	18.62	95UCL	7.4E+06	--	3E-06	--
367 249TH ST	1-Methylnaphthalene	mg/kg	2.209	95UCL	3.5E+05	1.4E+03	6E-06	2E-09
367 249TH ST	2-Methylnaphthalene	mg/kg	2.775	95UCL	2.0E+04	--	1E-04	--
367 249TH ST	Benzene	µg/kg	3.878	95UCL	5.8E+06	1.9E+04	7E-07	2E-10
367 249TH ST	Ethylbenzene	µg/kg	110.5	95UCL	2.9E+08	4.2E+05	4E-07	3E-10
367 249TH ST	Naphthalene	mg/kg	0.866	95UCL	1.3E+04	3.5E+02	7E-05	3E-09
367 249TH ST	Pyrene	mg/kg	0.815	95UCL	1.5E+05	--	5E-06	--
367 249TH ST	Toluene	µg/kg	0.38	95UCL	4.2E+08	--	9E-10	--
367 249TH ST	TPH as Diesel	mg/kg	2854	95UCL	1.1E+05	--	3E-02	--
367 249TH ST	TPH as Gasoline	mg/kg	108.6	95UCL	6.6E+04	--	2E-03	--
367 249TH ST	TPH as Motor Oil	mg/kg	4111	95UCL	2.9E+05	--	1E-02	--
367 249TH ST	Xylenes, Total	µg/kg	45.95	95UCL	4.9E+07	--	9E-07	--
368 249TH ST	1,2,4-Trimethylbenzene	µg/kg	6838	95UCL	7.2E+06	--	1E-03	--
368 249TH ST	1,3,5-Trimethylbenzene	µg/kg	2784	95UCL	7.4E+06	--	4E-04	--
368 249TH ST	1-Methylnaphthalene	mg/kg	1.402	95UCL	3.5E+05	1.4E+03	4E-06	1E-09
368 249TH ST	2-Methylnaphthalene	mg/kg	2.365	95UCL	2.0E+04	--	1E-04	--
368 249TH ST	Benzene	µg/kg	113.4	95UCL	5.8E+06	1.9E+04	2E-05	6E-09
368 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	1.1E+05	3.0E+03	3E-06	1E-10
368 249TH ST	Chromium, Hexavalent	mg/kg	0.304	95UCL	2.1E+04	1.1E+02	2E-05	3E-09
368 249TH ST	Ethylbenzene	µg/kg	1237	95UCL	2.9E+08	4.2E+05	4E-06	3E-09
368 249TH ST	Naphthalene	mg/kg	2.284	95UCL	1.3E+04	3.5E+02	2E-04	7E-09
368 249TH ST	Pyrene	mg/kg	0.0352	95UCL	1.5E+05	--	2E-07	--
368 249TH ST	Toluene	µg/kg	150	Max	4.2E+08	--	4E-07	--
368 249TH ST	TPH as Diesel	mg/kg	1736	95UCL	1.1E+05	--	2E-02	--
368 249TH ST	TPH as Gasoline	mg/kg	497.9	95UCL	6.6E+04	--	8E-03	--
368 249TH ST	TPH as Motor Oil	mg/kg	1893	95UCL	2.9E+05	--	7E-03	--
368 249TH ST	Xylenes, Total	µg/kg	11745	95UCL	4.9E+07	--	2E-04	--
373 249TH ST	1,2,3-Trichloropropane	µg/kg	4.2	Max	2.1E+05	1.9E+03	2E-05	2E-09
373 249TH ST	1,2,4-Trimethylbenzene	µg/kg	1287	95UCL	7.2E+06	--	2E-04	--
373 249TH ST	1,3,5-Trimethylbenzene	µg/kg	139.4	95UCL	7.4E+06	--	2E-05	--
373 249TH ST	1-Methylnaphthalene	mg/kg	5.813	95UCL	3.5E+05	1.4E+03	2E-05	4E-09
373 249TH ST	2-Methylnaphthalene	mg/kg	7.925	95UCL	2.0E+04	--	4E-04	--
373 249TH ST	Benzene	µg/kg	49.17	95UCL	5.8E+06	1.9E+04	8E-06	3E-09
373 249TH ST	Ethylbenzene	µg/kg	395.5	95UCL	2.9E+08	4.2E+05	1E-06	1E-09
373 249TH ST	Methylene Chloride	µg/kg	3.7	Max	3.2E+07	4.7E+05	1E-07	8E-12
373 249TH ST	Naphthalene	mg/kg	2.737	95UCL	1.3E+04	3.5E+02	2E-04	8E-09
373 249TH ST	Pyrene	mg/kg	2.318	95UCL	1.5E+05	--	2E-05	--
373 249TH ST	Toluene	µg/kg	18	Max	4.2E+08	--	4E-08	--
373 249TH ST	TPH as Diesel	mg/kg	4388	95UCL	1.1E+05	--	4E-02	--
373 249TH ST	TPH as Gasoline	mg/kg	85.95	95UCL	6.6E+04	--	1E-03	--
373 249TH ST	TPH as Motor Oil	mg/kg	5549	95UCL	2.9E+05	--	2E-02	--
373 249TH ST	Xylenes, Total	µg/kg	446.4	95UCL	4.9E+07	--	9E-06	--
374 248TH ST	1,2,4-Trimethylbenzene	µg/kg	750.2	95UCL	7.2E+06	--	1E-04	--

Appendix E
Detailed Risk Calculations

Table E-3
COC-Specific Risk and Hazard Results, Residential Properties
Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
374 248TH ST	1,3,5-Trimethylbenzene	µg/kg	171.8	95UCL	7.4E+06	--	2E-05	--
374 248TH ST	1-Methylnaphthalene	mg/kg	15.9	95UCL	3.5E+05	1.4E+03	5E-05	1E-08
374 248TH ST	2-Methylnaphthalene	mg/kg	19.19	95UCL	2.0E+04	--	1E-03	--
374 248TH ST	Benzene	µg/kg	180.1	95UCL	5.8E+06	1.9E+04	3E-05	9E-09
374 248TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.23	Max	1.1E+05	3.0E+03	2E-06	8E-11
374 248TH ST	Ethylbenzene	µg/kg	444.3	95UCL	2.9E+08	4.2E+05	2E-06	1E-09
374 248TH ST	Methylene Chloride	µg/kg	23	Max	3.2E+07	4.7E+05	7E-07	5E-11
374 248TH ST	Naphthalene	mg/kg	1.7	95UCL	1.3E+04	3.5E+02	1E-04	5E-09
374 248TH ST	Pyrene	mg/kg	44.47	95UCL	1.5E+05	--	3E-04	--
374 248TH ST	Toluene	µg/kg	18.55	95UCL	4.2E+08	--	4E-08	--
374 248TH ST	TPH as Diesel	mg/kg	11836	95UCL	1.1E+05	--	1E-01	--
374 248TH ST	TPH as Gasoline	mg/kg	67.78	95UCL	6.6E+04	--	1E-03	--
374 248TH ST	TPH as Motor Oil	mg/kg	18408	95UCL	2.9E+05	--	6E-02	--
374 248TH ST	Xylenes, Total	µg/kg	485	95UCL	4.9E+07	--	1E-05	--
374 249TH ST	1,2,4-Trimethylbenzene	µg/kg	4378	95UCL	7.2E+06	--	6E-04	--
374 249TH ST	1,3,5-Trimethylbenzene	µg/kg	1400	Max	7.4E+06	--	2E-04	--
374 249TH ST	1-Methylnaphthalene	mg/kg	8.05	95UCL	3.5E+05	1.4E+03	2E-05	6E-09
374 249TH ST	2-Methylnaphthalene	mg/kg	12.27	95UCL	2.0E+04	--	6E-04	--
374 249TH ST	Benzene	µg/kg	1549	95UCL	5.8E+06	1.9E+04	3E-04	8E-08
374 249TH ST	Chromium, Hexavalent	mg/kg	0.34	Max	2.1E+04	1.1E+02	2E-05	3E-09
374 249TH ST	Ethylbenzene	µg/kg	3238	95UCL	2.9E+08	4.2E+05	1E-05	8E-09
374 249TH ST	Naphthalene	mg/kg	4.627	95UCL	1.3E+04	3.5E+02	4E-04	1E-08
374 249TH ST	Pyrene	mg/kg	2.007	95UCL	1.5E+05	--	1E-05	--
374 249TH ST	Toluene	µg/kg	450	Max	4.2E+08	--	1E-06	--
374 249TH ST	TPH as Diesel	mg/kg	7293	95UCL	1.1E+05	--	7E-02	--
374 249TH ST	TPH as Gasoline	mg/kg	770	95UCL	6.6E+04	--	1E-02	--
374 249TH ST	TPH as Motor Oil	mg/kg	7183	95UCL	2.9E+05	--	3E-02	--
374 249TH ST	Xylenes, Total	µg/kg	3138	95UCL	4.9E+07	--	6E-05	--
377 244TH ST	1-Methylnaphthalene	mg/kg	0.0036	Max	3.5E+05	1.4E+03	1E-08	3E-12
377 244TH ST	2-Methylnaphthalene	mg/kg	0.0075	Max	2.0E+04	--	4E-07	--
377 244TH ST	Cobalt	mg/kg	12.01	95UCL	2.1E+03	2.7E+06	6E-03	4E-12
377 244TH ST	Naphthalene	mg/kg	0.0048	Max	1.3E+04	3.5E+02	4E-07	1E-11
377 244TH ST	Pyrene	mg/kg	0.036	Max	1.5E+05	--	2E-07	--
377 249TH ST	1,2,4-Trimethylbenzene	µg/kg	4500	95UCL	7.2E+06	--	6E-04	--
377 249TH ST	1,3,5-Trimethylbenzene	µg/kg	1600	95UCL	7.4E+06	--	2E-04	--
377 249TH ST	1-Methylnaphthalene	mg/kg	5.718	95UCL	3.5E+05	1.4E+03	2E-05	4E-09
377 249TH ST	2-Methylnaphthalene	mg/kg	8.594	95UCL	2.0E+04	--	4E-04	--
377 249TH ST	Benzene	µg/kg	360	95UCL	5.8E+06	1.9E+04	6E-05	2E-08
377 249TH ST	Ethylbenzene	µg/kg	1300	95UCL	2.9E+08	4.2E+05	5E-06	3E-09
377 249TH ST	Naphthalene	mg/kg	2.797	95UCL	1.3E+04	3.5E+02	2E-04	8E-09
377 249TH ST	Pyrene	mg/kg	1.386	95UCL	1.5E+05	--	9E-06	--
377 249TH ST	Toluene	µg/kg	0.25	Max	4.2E+08	--	6E-10	--
377 249TH ST	TPH as Diesel	mg/kg	7288	95UCL	1.1E+05	--	7E-02	--
377 249TH ST	TPH as Gasoline	mg/kg	430	95UCL	6.6E+04	--	7E-03	--
377 249TH ST	TPH as Motor Oil	mg/kg	7913	95UCL	2.9E+05	--	3E-02	--
377 249TH ST	Xylenes, Total	µg/kg	1485	95UCL	4.9E+07	--	3E-05	--
378 249TH ST	1,2,4-Trimethylbenzene	µg/kg	115.6	95UCL	7.2E+06	--	2E-05	--
378 249TH ST	1,3,5-Trimethylbenzene	µg/kg	47	Max	7.4E+06	--	6E-06	--
378 249TH ST	1-Methylnaphthalene	mg/kg	2.97	95UCL	3.5E+05	1.4E+03	9E-06	2E-09
378 249TH ST	2-Methylnaphthalene	mg/kg	8.488	95UCL	2.0E+04	--	4E-04	--
378 249TH ST	Benzene	µg/kg	250	Max	5.8E+06	1.9E+04	4E-05	1E-08
378 249TH ST	Ethylbenzene	µg/kg	3400	Max	2.9E+08	4.2E+05	1E-05	8E-09
378 249TH ST	Naphthalene	mg/kg	3.12	95UCL	1.3E+04	3.5E+02	2E-04	9E-09
378 249TH ST	Pyrene	mg/kg	0.213	95UCL	1.5E+05	--	1E-06	--
378 249TH ST	Toluene	µg/kg	13	Max	4.2E+08	--	3E-08	--
378 249TH ST	TPH as Diesel	mg/kg	5400	Max	1.1E+05	--	5E-02	--
378 249TH ST	TPH as Gasoline	mg/kg	293.5	95UCL	6.6E+04	--	4E-03	--
378 249TH ST	TPH as Motor Oil	mg/kg	5100	Max	2.9E+05	--	2E-02	--
378 249TH ST	Xylenes, Total	µg/kg	220	Max	4.9E+07	--	5E-06	--
383 249TH ST	1,2,4-Trimethylbenzene	µg/kg	900	95UCL	7.2E+06	--	1E-04	--
383 249TH ST	1,3,5-Trimethylbenzene	µg/kg	34.29	95UCL	7.4E+06	--	5E-06	--
383 249TH ST	1-Methylnaphthalene	mg/kg	4.226	95UCL	3.5E+05	1.4E+03	1E-05	3E-09

Appendix E
Detailed Risk Calculations

Table E-3
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Infrequent Contact Onsite Resident
Soil >5 to ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Resident (EF4)			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
383 249TH ST	2,4-Dinitrotoluene	mg/kg	0.12	Max	1.1E+04	1.4E+02	1E-05	9E-10
383 249TH ST	2-Methylnaphthalene	mg/kg	6.626	95UCL	2.0E+04	--	3E-04	--
383 249TH ST	Benzene	µg/kg	27.26	95UCL	5.8E+06	1.9E+04	5E-06	1E-09
383 249TH ST	Ethylbenzene	µg/kg	265.7	95UCL	2.9E+08	4.2E+05	9E-07	6E-10
383 249TH ST	Naphthalene	mg/kg	3.4	95UCL	1.3E+04	3.5E+02	3E-04	1E-08
383 249TH ST	Pyrene	mg/kg	1.288	95UCL	1.5E+05	--	9E-06	--
383 249TH ST	Toluene	µg/kg	1.962	95UCL	4.2E+08	--	5E-09	--
383 249TH ST	TPH as Diesel	mg/kg	4119	95UCL	1.1E+05	--	4E-02	--
383 249TH ST	TPH as Gasoline	mg/kg	201.8	95UCL	6.6E+04	--	3E-03	--
383 249TH ST	TPH as Motor Oil	mg/kg	4606	95UCL	2.9E+05	--	2E-02	--
383 249TH ST	Xylenes, Total	µg/kg	43.55	95UCL	4.9E+07	--	9E-07	--
402 249TH ST	1,2,4-Trimethylbenzene	µg/kg	1.7	Max	7.2E+06	--	2E-07	--
402 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.1	Max	7.4E+06	--	1E-08	--
402 249TH ST	1-Methylnaphthalene	mg/kg	0.019	Max	3.5E+05	1.4E+03	5E-08	1E-11
402 249TH ST	2-Methylnaphthalene	mg/kg	0.0204	95UCL	2.0E+04	--	1E-06	--
402 249TH ST	Benzene	µg/kg	0.2	Max	5.8E+06	1.9E+04	3E-08	1E-11
402 249TH ST	Ethylbenzene	µg/kg	0.42	Max	2.9E+08	4.2E+05	2E-09	1E-12
402 249TH ST	Naphthalene	mg/kg	0.00405	95UCL	1.3E+04	3.5E+02	3E-07	1E-11
402 249TH ST	Pyrene	mg/kg	0.0417	95UCL	1.5E+05	--	3E-07	--
402 249TH ST	Toluene	µg/kg	0.15	Max	4.2E+08	--	4E-10	--
402 249TH ST	TPH as Diesel	mg/kg	16	Max	1.1E+05	--	2E-04	--
402 249TH ST	TPH as Gasoline	mg/kg	0.22	Max	6.6E+04	--	3E-06	--
402 249TH ST	TPH as Motor Oil	mg/kg	52	Max	2.9E+05	--	2E-04	--
402 249TH ST	Xylenes, Total	µg/kg	0.3	Max	4.9E+07	--	6E-09	--
408 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.18	Max	7.2E+06	--	3E-08	--
408 249TH ST	1-Methylnaphthalene	mg/kg	0.0012	Max	3.5E+05	1.4E+03	3E-09	9E-13
408 249TH ST	2-Methylnaphthalene	mg/kg	0.004	Max	2.0E+04	--	2E-07	--
408 249TH ST	Benzene	µg/kg	1.2	Max	5.8E+06	1.9E+04	2E-07	6E-11
408 249TH ST	Naphthalene	mg/kg	0.0021	Max	1.3E+04	3.5E+02	2E-07	6E-12
408 249TH ST	Pyrene	mg/kg	0.014	Max	1.5E+05	--	9E-08	--
408 249TH ST	Toluene	µg/kg	0.57	Max	4.2E+08	--	1E-09	--
408 249TH ST	TPH as Diesel	mg/kg	160	Max	1.1E+05	--	2E-03	--
408 249TH ST	TPH as Motor Oil	mg/kg	350	Max	2.9E+05	--	1E-03	--
412 249TH ST	1,2,4-Trimethylbenzene	µg/kg	1.08	95UCL	7.2E+06	--	2E-07	--
412 249TH ST	1,3,5-Trimethylbenzene	µg/kg	1.5	Max	7.4E+06	--	2E-07	--
412 249TH ST	1-Methylnaphthalene	mg/kg	0.0211	95UCL	3.5E+05	1.4E+03	6E-08	2E-11
412 249TH ST	2-Methylnaphthalene	mg/kg	0.0958	95UCL	2.0E+04	--	5E-06	--
412 249TH ST	Benzene	µg/kg	0.145	95UCL	5.8E+06	1.9E+04	3E-08	8E-12
412 249TH ST	Chromium, Hexavalent	mg/kg	0.33	Max	2.1E+04	1.1E+02	2E-05	3E-09
412 249TH ST	Ethylbenzene	µg/kg	0.71	Max	2.9E+08	4.2E+05	3E-09	2E-12
412 249TH ST	Naphthalene	mg/kg	0.0229	95UCL	1.3E+04	3.5E+02	2E-06	7E-11
412 249TH ST	Pyrene	mg/kg	25.45	95UCL	1.5E+05	--	2E-04	--
412 249TH ST	Toluene	µg/kg	0.14	Max	4.2E+08	--	3E-10	--
412 249TH ST	TPH as Diesel	mg/kg	14051	95UCL	1.1E+05	--	1E-01	--
412 249TH ST	TPH as Gasoline	mg/kg	3.233	95UCL	6.6E+04	--	5E-05	--
412 249TH ST	TPH as Motor Oil	mg/kg	20334	95UCL	2.9E+05	--	7E-02	--
412 249TH ST	Xylenes, Total	µg/kg	2.6	Max	4.9E+07	--	5E-08	--

Notes:

" -- " not applicable; COC = Constituent of Concern; 95UCL = 95 percent upper confidence limit

EF4 = exposure frequency of 4 days per year; ft bgs = feet below ground surface

SSCG = Site-specific cleanup goals; SSCGnc = based on noncancer effects; SSCGc = based on cancer effects

EPC = exposure point concentration based on the 95UCLs; if not available, maximum detect (Max) was used as the EPC.

No COC-specific noncancer hazard or COC-specific cancer risk >1 nor >1E-06, respectively

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24401 MARBELLA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.21	Max	8.3E+05	5.7E+03	3E-07	4E-10
24401 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.12	Max	7.5E+04	--	2E-06	--
24401 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.00721	95UCL	1.9E+05	2.7E+03	4E-08	3E-11
24401 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0135	95UCL	1.1E+04	--	1E-06	--
24401 MARBELLA AVE	Benzene	µg/kg	0.185	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24401 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.6	Max	6.3E+04	6.4E+03	3E-05	3E-09
24401 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	3.2E+03	6.7E+00	1E-04	7E-07
24401 MARBELLA AVE	Cobalt	mg/kg	12.07	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24401 MARBELLA AVE	Ethylbenzene	µg/kg	0.44	Max	4.5E+06	5.1E+04	1E-07	9E-11
24401 MARBELLA AVE	Methylene Chloride	µg/kg	5.6	Max	1.2E+06	5.9E+04	5E-06	1E-09
24401 MARBELLA AVE	Naphthalene	mg/kg	0.00816	95UCL	1.4E+02	3.9E+01	6E-05	2E-09
24401 MARBELLA AVE	Pyrene	mg/kg	0.0848	95UCL	6.7E+04	--	1E-06	--
24401 MARBELLA AVE	Tetrachloroethene	µg/kg	0.42	Max	8.6E+04	1.0E+04	5E-06	4E-10
24401 MARBELLA AVE	Toluene	µg/kg	1.1	Max	1.6E+07	--	7E-08	--
24401 MARBELLA AVE	TPH as Diesel	mg/kg	73.95	95UCL	1.9E+03	--	4E-02	--
24401 MARBELLA AVE	TPH as Gasoline	mg/kg	0.0745	95UCL	8.6E+02	--	9E-05	--
24401 MARBELLA AVE	TPH as Motor Oil	mg/kg	208.1	95UCL	1.6E+05	--	1E-03	--
24401 MARBELLA AVE	Vanadium	mg/kg	42.07	95UCL	3.3E+03	--	1E-02	--
24402 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.645	95UCL	7.5E+04	--	9E-06	--
24402 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.66	Max	7.7E+04	--	9E-06	--
24402 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.861	95UCL	1.9E+05	2.7E+03	4E-06	3E-09
24402 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	1.712	95UCL	1.1E+04	--	2E-04	--
24402 NEPTUNE AVE	Benzene	µg/kg	0.202	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24402 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.39	Max	3.2E+03	6.7E+00	1E-04	6E-07
24402 NEPTUNE AVE	Cobalt	mg/kg	10.03	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24402 NEPTUNE AVE	Ethylbenzene	µg/kg	5.651	95UCL	4.5E+06	5.1E+04	1E-06	1E-09
24402 NEPTUNE AVE	Naphthalene	mg/kg	0.463	95UCL	1.4E+02	3.9E+01	3E-03	1E-07
24402 NEPTUNE AVE	Pyrene	mg/kg	1.053	95UCL	6.7E+04	--	2E-05	--
24402 NEPTUNE AVE	Toluene	µg/kg	0.205	95UCL	1.6E+07	--	1E-08	--
24402 NEPTUNE AVE	TPH as Diesel	mg/kg	2428	95UCL	1.9E+03	--	1E+00	--
24402 NEPTUNE AVE	TPH as Gasoline	mg/kg	18.43	95UCL	8.6E+02	--	2E-02	--
24402 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2113	95UCL	1.6E+05	--	1E-02	--
24402 NEPTUNE AVE	Xylenes, Total	µg/kg	0.829	95UCL	4.7E+05	--	2E-06	--
24402 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.291	95UCL	7.5E+04	--	4E-06	--
24402 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.21	Max	7.7E+04	--	3E-06	--
24402 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00551	95UCL	1.9E+05	2.7E+03	3E-08	2E-11
24402 PANAMA AVE	2,4-Dinitrotoluene	mg/kg	0.066	Max	6.3E+03	2.8E+02	1E-05	2E-09
24402 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0279	95UCL	1.1E+04	--	3E-06	--
24402 PANAMA AVE	Benzene	µg/kg	0.2	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24402 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.66	Max	6.3E+04	6.4E+03	1E-05	1E-09
24402 PANAMA AVE	Bromomethane	µg/kg	1.9	Max	7.8E+03	--	2E-04	--
24402 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.285	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24402 PANAMA AVE	Cobalt	mg/kg	11.37	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24402 PANAMA AVE	Ethylbenzene	µg/kg	0.175	95UCL	4.5E+06	5.1E+04	4E-08	3E-11
24402 PANAMA AVE	Naphthalene	mg/kg	0.00577	95UCL	1.4E+02	3.9E+01	4E-05	2E-09
24402 PANAMA AVE	Pyrene	mg/kg	0.13	95UCL	6.7E+04	--	2E-06	--
24402 PANAMA AVE	Toluene	µg/kg	0.378	95UCL	1.6E+07	--	2E-08	--
24402 PANAMA AVE	TPH as Diesel	mg/kg	500.7	95UCL	1.9E+03	--	3E-01	--
24402 PANAMA AVE	TPH as Gasoline	mg/kg	0.07	95UCL	8.6E+02	--	8E-05	--
24402 PANAMA AVE	TPH as Motor Oil	mg/kg	842.2	95UCL	1.6E+05	--	5E-03	--
24402 PANAMA AVE	Trichloroethene	µg/kg	0.17	Max	5.5E+03	1.9E+04	3E-05	9E-11
24402 PANAMA AVE	Vanadium	mg/kg	37.78	95UCL	3.3E+03	--	1E-02	--
24402 PANAMA AVE	Xylenes, Total	µg/kg	0.365	95UCL	4.7E+05	--	8E-07	--
24402 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	5855	95UCL	7.5E+04	--	8E-02	--
24402 RAVENNA AVE	1,2-Dichloropropane	µg/kg	0.65	Max	1.2E+04	8.5E+03	5E-05	8E-10
24402 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1712	95UCL	7.7E+04	--	2E-02	--
24402 RAVENNA AVE	1-Methylnaphthalene	mg/kg	12.01	95UCL	1.9E+05	2.7E+03	6E-05	5E-08
24402 RAVENNA AVE	2-Methylnaphthalene	mg/kg	19.19	95UCL	1.1E+04	--	2E-03	--
24402 RAVENNA AVE	Benzene	µg/kg	2135	95UCL	6.9E+04	2.2E+03	3E-02	1E-05
24402 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.38	Max	6.3E+04	6.4E+03	6E-06	6E-10
24402 RAVENNA AVE	Bromomethane	µg/kg	1.1	Max	7.8E+03	--	1E-04	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24402 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.157	95UCL	3.2E+03	6.7E+00	5E-05	2E-07
24402 RAVENNA AVE	Cobalt	mg/kg	11.09	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24402 RAVENNA AVE	Ethylbenzene	µg/kg	3220	95UCL	4.5E+06	5.1E+04	7E-04	6E-07
24402 RAVENNA AVE	Naphthalene	mg/kg	9.183	95UCL	1.4E+02	3.9E+01	7E-02	2E-06
24402 RAVENNA AVE	Pyrene	mg/kg	0.662	95UCL	6.7E+04	--	1E-05	--
24402 RAVENNA AVE	Toluene	µg/kg	68.07	95UCL	1.6E+07	--	4E-06	--
24402 RAVENNA AVE	TPH as Diesel	mg/kg	7874	95UCL	1.9E+03	--	4E+00	--
24402 RAVENNA AVE	TPH as Gasoline	mg/kg	1091	95UCL	8.6E+02	--	1E+00	--
24402 RAVENNA AVE	TPH as Motor Oil	mg/kg	7158	95UCL	1.6E+05	--	5E-02	--
24402 RAVENNA AVE	Xylenes, Total	µg/kg	4661	95UCL	4.7E+05	--	1E-02	--
24403 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	4666	95UCL	7.5E+04	--	6E-02	--
24403 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	707.6	95UCL	7.7E+04	--	9E-03	--
24403 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	7.801	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24403 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	11.79	95UCL	1.1E+04	--	1E-03	--
24403 NEPTUNE AVE	Benzene	µg/kg	1673	95UCL	6.9E+04	2.2E+03	2E-02	8E-06
24403 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.38	Max	6.3E+04	6.4E+03	6E-06	6E-10
24403 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.38	Max	3.2E+03	6.7E+00	1E-04	6E-07
24403 NEPTUNE AVE	Cobalt	mg/kg	10.85	95UCL	2.0E+02	1.1E+02	5E-02	1E-06
24403 NEPTUNE AVE	Ethylbenzene	µg/kg	3081	95UCL	4.5E+06	5.1E+04	7E-04	6E-07
24403 NEPTUNE AVE	Naphthalene	mg/kg	5.38	95UCL	1.4E+02	3.9E+01	4E-02	1E-06
24403 NEPTUNE AVE	Pyrene	mg/kg	1.776	95UCL	6.7E+04	--	3E-05	--
24403 NEPTUNE AVE	Toluene	µg/kg	250.6	95UCL	1.6E+07	--	2E-05	--
24403 NEPTUNE AVE	TPH as Diesel	mg/kg	9042	95UCL	1.9E+03	--	5E+00	--
24403 NEPTUNE AVE	TPH as Gasoline	mg/kg	484.8	95UCL	8.6E+02	--	6E-01	--
24403 NEPTUNE AVE	TPH as Motor Oil	mg/kg	9528	95UCL	1.6E+05	--	6E-02	--
24403 NEPTUNE AVE	Xylenes, Total	µg/kg	3652	95UCL	4.7E+05	--	8E-03	--
24403 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	706.4	95UCL	7.5E+04	--	9E-03	--
24403 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	2100	Max	7.7E+04	--	3E-02	--
24403 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.402	95UCL	1.9E+05	2.7E+03	7E-06	5E-09
24403 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.904	95UCL	1.1E+04	--	2E-04	--
24403 RAVENNA AVE	Benzene	µg/kg	15.54	95UCL	6.9E+04	2.2E+03	2E-04	7E-08
24403 RAVENNA AVE	Bromomethane	µg/kg	2.4	Max	7.8E+03	--	3E-04	--
24403 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.288	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24403 RAVENNA AVE	Cobalt	mg/kg	10.45	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24403 RAVENNA AVE	Ethylbenzene	µg/kg	166.8	95UCL	4.5E+06	5.1E+04	4E-05	3E-08
24403 RAVENNA AVE	Naphthalene	mg/kg	0.826	95UCL	1.4E+02	3.9E+01	6E-03	2E-07
24403 RAVENNA AVE	Pyrene	mg/kg	0.584	95UCL	6.7E+04	--	9E-06	--
24403 RAVENNA AVE	Toluene	µg/kg	0.974	95UCL	1.6E+07	--	6E-08	--
24403 RAVENNA AVE	TPH as Diesel	mg/kg	2290	95UCL	1.9E+03	--	1E+00	--
24403 RAVENNA AVE	TPH as Gasoline	mg/kg	91.94	95UCL	8.6E+02	--	1E-01	--
24403 RAVENNA AVE	TPH as Motor Oil	mg/kg	2597	95UCL	1.6E+05	--	2E-02	--
24403 RAVENNA AVE	Vinyl Chloride	µg/kg	0.18	Max	8.7E+04	3.1E+02	2E-06	6E-09
24403 RAVENNA AVE	Xylenes, Total	µg/kg	240.7	95UCL	4.7E+05	--	5E-04	--
24405 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.43	Max	7.5E+04	--	6E-06	--
24405 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0017	Max	1.9E+05	2.7E+03	9E-09	6E-12
24405 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00324	95UCL	1.1E+04	--	3E-07	--
24405 MARBELLA AVE	Benzene	µg/kg	0.293	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24405 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.27	Max	6.3E+04	6.4E+03	4E-06	4E-10
24405 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.6	Max	3.2E+03	6.7E+00	2E-04	9E-07
24405 MARBELLA AVE	Cobalt	mg/kg	12.24	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24405 MARBELLA AVE	Ethylbenzene	µg/kg	0.38	Max	4.5E+06	5.1E+04	8E-08	8E-11
24405 MARBELLA AVE	Naphthalene	mg/kg	0.0055	95UCL	1.4E+02	3.9E+01	4E-05	1E-09
24405 MARBELLA AVE	Pyrene	mg/kg	0.0426	95UCL	6.7E+04	--	6E-07	--
24405 MARBELLA AVE	Tetrachloroethene	µg/kg	0.74	Max	8.6E+04	1.0E+04	9E-06	7E-10
24405 MARBELLA AVE	Toluene	µg/kg	0.691	95UCL	1.6E+07	--	4E-08	--
24405 MARBELLA AVE	TPH as Diesel	mg/kg	178.8	95UCL	1.9E+03	--	9E-02	--
24405 MARBELLA AVE	TPH as Motor Oil	mg/kg	413.1	95UCL	1.6E+05	--	3E-03	--
24405 MARBELLA AVE	Xylenes, Total	µg/kg	2.4	Max	4.7E+05	--	5E-06	--
24406 MARBELLA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.18	Max	8.3E+05	5.7E+03	2E-07	3E-10
24406 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2417	95UCL	7.5E+04	--	3E-02	--
24406 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	4940	95UCL	7.7E+04	--	6E-02	--

Appendix E
Detailed Risk Calculations

Table E-4
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Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24406 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.22	Max	8.7E+06	2.8E+04	3E-08	8E-11
24406 MARBELLA AVE	1-Methylnaphthalene	mg/kg	4.079	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24406 MARBELLA AVE	2-Methylnaphthalene	mg/kg	8.28	95UCL	1.1E+04	--	8E-04	--
24406 MARBELLA AVE	Benzene	µg/kg	1876	95UCL	6.9E+04	2.2E+03	3E-02	8E-06
24406 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.98	Max	6.3E+04	6.4E+03	2E-05	2E-09
24406 MARBELLA AVE	Bromomethane	µg/kg	380	Max	7.8E+03	--	5E-02	--
24406 MARBELLA AVE	Cobalt	mg/kg	10.88	95UCL	2.0E+02	1.1E+02	5E-02	1E-06
24406 MARBELLA AVE	Ethylbenzene	µg/kg	15000	Max	4.5E+06	5.1E+04	3E-03	3E-06
24406 MARBELLA AVE	Naphthalene	mg/kg	3.603	95UCL	1.4E+02	3.9E+01	3E-02	9E-07
24406 MARBELLA AVE	Pyrene	mg/kg	0.335	95UCL	6.7E+04	--	5E-06	--
24406 MARBELLA AVE	Toluene	µg/kg	4733	95UCL	1.6E+07	--	3E-04	--
24406 MARBELLA AVE	TPH as Diesel	mg/kg	4319	95UCL	1.9E+03	--	2E+00	--
24406 MARBELLA AVE	TPH as Gasoline	mg/kg	741.3	95UCL	8.6E+02	--	9E-01	--
24406 MARBELLA AVE	TPH as Motor Oil	mg/kg	4117	95UCL	1.6E+05	--	3E-02	--
24406 MARBELLA AVE	Trichloroethene	µg/kg	0.16	Max	5.5E+03	1.9E+04	3E-05	9E-11
24406 MARBELLA AVE	Xylenes, Total	µg/kg	9524	95UCL	4.7E+05	--	2E-02	--
24406 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	941.7	95UCL	7.5E+04	--	1E-02	--
24406 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	720	Max	7.7E+04	--	9E-03	--
24406 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.778	95UCL	1.9E+05	2.7E+03	9E-06	7E-09
24406 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	2.531	95UCL	1.1E+04	--	2E-04	--
24406 NEPTUNE AVE	Benzene	µg/kg	25.54	95UCL	6.9E+04	2.2E+03	4E-04	1E-07
24406 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	3.3	Max	6.3E+04	6.4E+03	5E-05	5E-09
24406 NEPTUNE AVE	Cobalt	mg/kg	10.27	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24406 NEPTUNE AVE	Ethylbenzene	µg/kg	226.2	95UCL	4.5E+06	5.1E+04	5E-05	4E-08
24406 NEPTUNE AVE	Naphthalene	mg/kg	1.259	95UCL	1.4E+02	3.9E+01	9E-03	3E-07
24406 NEPTUNE AVE	Pyrene	mg/kg	0.732	95UCL	6.7E+04	--	1E-05	--
24406 NEPTUNE AVE	TPH as Diesel	mg/kg	6316	95UCL	1.9E+03	--	3E+00	--
24406 NEPTUNE AVE	TPH as Gasoline	mg/kg	117.8	95UCL	8.6E+02	--	1E-01	--
24406 NEPTUNE AVE	TPH as Motor Oil	mg/kg	14325	95UCL	1.6E+05	--	9E-02	--
24406 NEPTUNE AVE	Xylenes, Total	µg/kg	428.6	95UCL	4.7E+05	--	9E-04	--
24406 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.61	Max	7.5E+04	--	8E-06	--
24406 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.12	Max	7.7E+04	--	2E-06	--
24406 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.67	Max	1.9E+05	2.7E+03	4E-06	3E-09
24406 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.196	95UCL	1.1E+04	--	2E-05	--
24406 PANAMA AVE	Benzene	µg/kg	0.189	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24406 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.189	95UCL	3.2E+03	6.7E+00	6E-05	3E-07
24406 PANAMA AVE	Cobalt	mg/kg	10.72	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24406 PANAMA AVE	Naphthalene	mg/kg	0.032	95UCL	1.4E+02	3.9E+01	2E-04	8E-09
24406 PANAMA AVE	Pyrene	mg/kg	0.64	95UCL	6.7E+04	--	1E-05	--
24406 PANAMA AVE	Toluene	µg/kg	0.194	95UCL	1.6E+07	--	1E-08	--
24406 PANAMA AVE	TPH as Diesel	mg/kg	2396	95UCL	1.9E+03	--	1E+00	--
24406 PANAMA AVE	TPH as Motor Oil	mg/kg	2953	95UCL	1.6E+05	--	2E-02	--
24406 PANAMA AVE	Xylenes, Total	µg/kg	0.2	Max	4.7E+05	--	4E-07	--
24406 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	110	Max	7.5E+04	--	2E-03	--
24406 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	16	Max	7.7E+04	--	2E-04	--
24406 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.612	95UCL	1.9E+05	2.7E+03	3E-06	2E-09
24406 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.817	95UCL	1.1E+04	--	7E-05	--
24406 RAVENNA AVE	Benzene	µg/kg	0.18	Max	6.9E+04	2.2E+03	3E-06	8E-10
24406 RAVENNA AVE	Bromomethane	µg/kg	1.3	Max	7.8E+03	--	2E-04	--
24406 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.6	Max	3.2E+03	6.7E+00	2E-04	9E-07
24406 RAVENNA AVE	Ethylbenzene	µg/kg	360	Max	4.5E+06	5.1E+04	8E-05	7E-08
24406 RAVENNA AVE	Naphthalene	mg/kg	0.27	95UCL	1.4E+02	3.9E+01	2E-03	7E-08
24406 RAVENNA AVE	Pyrene	mg/kg	0.255	95UCL	6.7E+04	--	4E-06	--
24406 RAVENNA AVE	Toluene	µg/kg	3.064	95UCL	1.6E+07	--	2E-07	--
24406 RAVENNA AVE	TPH as Diesel	mg/kg	959.4	95UCL	1.9E+03	--	5E-01	--
24406 RAVENNA AVE	TPH as Gasoline	mg/kg	3.442	95UCL	8.6E+02	--	4E-03	--
24406 RAVENNA AVE	TPH as Motor Oil	mg/kg	1742	95UCL	1.6E+05	--	1E-02	--
24406 RAVENNA AVE	Xylenes, Total	µg/kg	110	Max	4.7E+05	--	2E-04	--
24409 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	28.28	95UCL	7.5E+04	--	4E-04	--
24409 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.19	Max	7.7E+04	--	3E-06	--
24409 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.19	Max	8.7E+06	2.8E+04	2E-08	7E-11

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24409 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.811	95UCL	1.9E+05	2.7E+03	4E-06	3E-09
24409 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	1.711	95UCL	1.1E+04	--	2E-04	--
24409 NEPTUNE AVE	Benzene	µg/kg	112.9	95UCL	6.9E+04	2.2E+03	2E-03	5E-07
24409 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.43	Max	6.3E+04	6.4E+03	7E-06	7E-10
24409 NEPTUNE AVE	Ethylbenzene	µg/kg	212.5	95UCL	4.5E+06	5.1E+04	5E-05	4E-08
24409 NEPTUNE AVE	Naphthalene	mg/kg	0.434	95UCL	1.4E+02	3.9E+01	3E-03	1E-07
24409 NEPTUNE AVE	Pyrene	mg/kg	0.733	95UCL	6.7E+04	--	1E-05	--
24409 NEPTUNE AVE	Toluene	µg/kg	0.34	95UCL	1.6E+07	--	2E-08	--
24409 NEPTUNE AVE	TPH as Diesel	mg/kg	4008	95UCL	1.9E+03	--	2E+00	--
24409 NEPTUNE AVE	TPH as Gasoline	mg/kg	187.8	95UCL	8.6E+02	--	2E-01	--
24409 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5861	95UCL	1.6E+05	--	4E-02	--
24409 NEPTUNE AVE	Xylenes, Total	µg/kg	0.911	95UCL	4.7E+05	--	2E-06	--
24409 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.178	95UCL	7.5E+04	--	2E-06	--
24409 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.22	Max	7.7E+04	--	3E-06	--
24409 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.119	95UCL	1.9E+05	2.7E+03	6E-06	4E-09
24409 RAVENNA AVE	2-Methylnaphthalene	mg/kg	2.273	95UCL	1.1E+04	--	2E-04	--
24409 RAVENNA AVE	Benzene	µg/kg	0.25	Max	6.9E+04	2.2E+03	4E-06	1E-09
24409 RAVENNA AVE	Cobalt	mg/kg	9.98	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24409 RAVENNA AVE	Ethylbenzene	µg/kg	7.388	95UCL	4.5E+06	5.1E+04	2E-06	2E-09
24409 RAVENNA AVE	Naphthalene	mg/kg	0.456	95UCL	1.4E+02	3.9E+01	3E-03	1E-07
24409 RAVENNA AVE	Pyrene	mg/kg	0.702	95UCL	6.7E+04	--	1E-05	--
24409 RAVENNA AVE	Toluene	µg/kg	0.151	95UCL	1.6E+07	--	9E-09	--
24409 RAVENNA AVE	TPH as Diesel	mg/kg	1905	95UCL	1.9E+03	--	1E+00	--
24409 RAVENNA AVE	TPH as Gasoline	mg/kg	62.34	95UCL	8.6E+02	--	7E-02	--
24409 RAVENNA AVE	TPH as Motor Oil	mg/kg	2654	95UCL	1.6E+05	--	2E-02	--
24409 RAVENNA AVE	Xylenes, Total	µg/kg	0.732	95UCL	4.7E+05	--	2E-06	--
24410 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0145	95UCL	1.9E+05	2.7E+03	8E-08	5E-11
24410 PANAMA AVE	2,4-Dinitrotoluene	mg/kg	0.068	Max	6.3E+03	2.8E+02	1E-05	2E-09
24410 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0252	95UCL	1.1E+04	--	2E-06	--
24410 PANAMA AVE	Benzene	µg/kg	3.528	95UCL	6.9E+04	2.2E+03	5E-05	2E-08
24410 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.21	Max	6.3E+04	6.4E+03	3E-06	3E-10
24410 PANAMA AVE	Bromomethane	µg/kg	2.3	Max	7.8E+03	--	3E-04	--
24410 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	3.2E+03	6.7E+00	8E-05	4E-07
24410 PANAMA AVE	Cobalt	mg/kg	9.678	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24410 PANAMA AVE	Naphthalene	mg/kg	0.00886	95UCL	1.4E+02	3.9E+01	6E-05	2E-09
24410 PANAMA AVE	Pyrene	mg/kg	0.184	95UCL	6.7E+04	--	3E-06	--
24410 PANAMA AVE	Tetrachloroethene	µg/kg	0.23	Max	8.6E+04	1.0E+04	3E-06	2E-10
24410 PANAMA AVE	Toluene	µg/kg	0.594	95UCL	1.6E+07	--	4E-08	--
24410 PANAMA AVE	TPH as Diesel	mg/kg	238.4	95UCL	1.9E+03	--	1E-01	--
24410 PANAMA AVE	TPH as Gasoline	mg/kg	0.058	Max	8.6E+02	--	7E-05	--
24410 PANAMA AVE	TPH as Motor Oil	mg/kg	822.7	95UCL	1.6E+05	--	5E-03	--
24410 PANAMA AVE	Trichloroethene	µg/kg	0.2	Max	5.5E+03	1.9E+04	4E-05	1E-10
24410 PANAMA AVE	Xylenes, Total	µg/kg	0.61	Max	4.7E+05	--	1E-06	--
24411 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	67.89	95UCL	7.5E+04	--	9E-04	--
24411 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	82	Max	7.7E+04	--	1E-03	--
24411 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.33	Max	8.7E+06	2.8E+04	4E-08	1E-10
24411 MARBELLA AVE	1-Methylnaphthalene	mg/kg	1.826	95UCL	1.9E+05	2.7E+03	9E-06	7E-09
24411 MARBELLA AVE	2-Methylnaphthalene	mg/kg	4.455	95UCL	1.1E+04	--	4E-04	--
24411 MARBELLA AVE	Benzene	µg/kg	0.183	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24411 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.36	95UCL	6.3E+04	6.4E+03	6E-06	6E-10
24411 MARBELLA AVE	Cobalt	mg/kg	11.18	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24411 MARBELLA AVE	Ethylbenzene	µg/kg	76	Max	4.5E+06	5.1E+04	2E-05	2E-08
24411 MARBELLA AVE	Naphthalene	mg/kg	0.689	95UCL	1.4E+02	3.9E+01	5E-03	2E-07
24411 MARBELLA AVE	Pyrene	mg/kg	1.311	95UCL	6.7E+04	--	2E-05	--
24411 MARBELLA AVE	Tetrachloroethene	µg/kg	0.37	95UCL	8.6E+04	1.0E+04	4E-06	4E-10
24411 MARBELLA AVE	Toluene	µg/kg	10.61	95UCL	1.6E+07	--	7E-07	--
24411 MARBELLA AVE	TPH as Diesel	mg/kg	4283	95UCL	1.9E+03	--	2E+00	--
24411 MARBELLA AVE	TPH as Gasoline	mg/kg	0.13	95UCL	8.6E+02	--	2E-04	--
24411 MARBELLA AVE	TPH as Motor Oil	mg/kg	6751	95UCL	1.6E+05	--	4E-02	--
24411 MARBELLA AVE	Trichloroethene	µg/kg	0.48	Max	5.5E+03	1.9E+04	9E-05	3E-10
24411 MARBELLA AVE	Xylenes, Total	µg/kg	36.09	95UCL	4.7E+05	--	8E-05	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24411 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	6840	95UCL	7.5E+04	--	9E-02	--
24411 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	2229	95UCL	7.7E+04	--	3E-02	--
24411 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.2	Max	8.7E+06	2.8E+04	2E-08	7E-11
24411 PANAMA AVE	1-Methylnaphthalene	mg/kg	9.877	95UCL	1.9E+05	2.7E+03	5E-05	4E-08
24411 PANAMA AVE	2-Methylnaphthalene	mg/kg	16.08	95UCL	1.1E+04	--	2E-03	--
24411 PANAMA AVE	Benzene	µg/kg	2532	95UCL	6.9E+04	2.2E+03	4E-02	1E-05
24411 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.3	Max	6.3E+04	6.4E+03	2E-05	2E-09
24411 PANAMA AVE	Bromomethane	µg/kg	270	Max	7.8E+03	--	4E-02	--
24411 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.33	Max	3.2E+03	6.7E+00	1E-04	5E-07
24411 PANAMA AVE	Cobalt	mg/kg	10.85	95UCL	2.0E+02	1.1E+02	5E-02	1E-06
24411 PANAMA AVE	Ethylbenzene	µg/kg	2419	95UCL	4.5E+06	5.1E+04	5E-04	5E-07
24411 PANAMA AVE	Naphthalene	mg/kg	7.637	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24411 PANAMA AVE	Pyrene	mg/kg	0.218	95UCL	6.7E+04	--	3E-06	--
24411 PANAMA AVE	Toluene	µg/kg	474.4	95UCL	1.6E+07	--	3E-05	--
24411 PANAMA AVE	TPH as Diesel	mg/kg	6337	95UCL	1.9E+03	--	3E+00	--
24411 PANAMA AVE	TPH as Gasoline	mg/kg	1037	95UCL	8.6E+02	--	1E+00	--
24411 PANAMA AVE	TPH as Motor Oil	mg/kg	5449	95UCL	1.6E+05	--	3E-02	--
24411 PANAMA AVE	Xylenes, Total	µg/kg	8771	95UCL	4.7E+05	--	2E-02	--
24412 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	4881	95UCL	7.5E+04	--	7E-02	--
24412 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	7900	Max	7.7E+04	--	1E-01	--
24412 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.34	Max	8.7E+06	2.8E+04	4E-08	1E-10
24412 MARBELLA AVE	1-Methylnaphthalene	mg/kg	5.304	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24412 MARBELLA AVE	2-Methylnaphthalene	mg/kg	12.28	95UCL	1.1E+04	--	1E-03	--
24412 MARBELLA AVE	Benzene	µg/kg	986.8	95UCL	6.9E+04	2.2E+03	1E-02	4E-06
24412 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1	Max	6.3E+04	6.4E+03	2E-05	2E-09
24412 MARBELLA AVE	Bromomethane	µg/kg	6.2	Max	7.8E+03	--	8E-04	--
24412 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.172	95UCL	3.2E+03	6.7E+00	6E-05	3E-07
24412 MARBELLA AVE	Cobalt	mg/kg	13.36	95UCL	2.0E+02	1.1E+02	7E-02	1E-06
24412 MARBELLA AVE	Ethylbenzene	µg/kg	2011	95UCL	4.5E+06	5.1E+04	4E-04	4E-07
24412 MARBELLA AVE	Naphthalene	mg/kg	7.962	95UCL	1.4E+02	3.9E+01	6E-02	2E-06
24412 MARBELLA AVE	Pyrene	mg/kg	0.336	95UCL	6.7E+04	--	5E-06	--
24412 MARBELLA AVE	Toluene	µg/kg	54.96	95UCL	1.6E+07	--	3E-06	--
24412 MARBELLA AVE	TPH as Diesel	mg/kg	6974	95UCL	1.9E+03	--	4E+00	--
24412 MARBELLA AVE	TPH as Gasoline	mg/kg	1059	95UCL	8.6E+02	--	1E+00	--
24412 MARBELLA AVE	TPH as Motor Oil	mg/kg	7448	95UCL	1.6E+05	--	5E-02	--
24412 MARBELLA AVE	Vanadium	mg/kg	42.26	95UCL	3.3E+03	--	1E-02	--
24412 MARBELLA AVE	Xylenes, Total	µg/kg	4952	95UCL	4.7E+05	--	1E-02	--
24412 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1060	95UCL	7.5E+04	--	1E-02	--
24412 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	7.62	95UCL	7.7E+04	--	1E-04	--
24412 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.37	Max	8.7E+06	2.8E+04	4E-08	1E-10
24412 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.43	95UCL	1.9E+05	2.7E+03	1E-05	9E-09
24412 RAVENNA AVE	2-Methylnaphthalene	mg/kg	3.516	95UCL	1.1E+04	--	3E-04	--
24412 RAVENNA AVE	Benzene	µg/kg	15.17	95UCL	6.9E+04	2.2E+03	2E-04	7E-08
24412 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.18	Max	6.3E+04	6.4E+03	3E-06	3E-10
24412 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	3.2E+03	6.7E+00	9E-05	4E-07
24412 RAVENNA AVE	Cobalt	mg/kg	9.909	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24412 RAVENNA AVE	Ethylbenzene	µg/kg	614	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24412 RAVENNA AVE	Naphthalene	mg/kg	1.379	95UCL	1.4E+02	3.9E+01	1E-02	4E-07
24412 RAVENNA AVE	Pyrene	mg/kg	0.432	95UCL	6.7E+04	--	7E-06	--
24412 RAVENNA AVE	Toluene	µg/kg	2.905	95UCL	1.6E+07	--	2E-07	--
24412 RAVENNA AVE	TPH as Diesel	mg/kg	2519	95UCL	1.9E+03	--	1E+00	--
24412 RAVENNA AVE	TPH as Gasoline	mg/kg	188.8	95UCL	8.6E+02	--	2E-01	--
24412 RAVENNA AVE	TPH as Motor Oil	mg/kg	3367	95UCL	1.6E+05	--	2E-02	--
24412 RAVENNA AVE	Xylenes, Total	µg/kg	191.7	95UCL	4.7E+05	--	4E-04	--
24413 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	2008	95UCL	7.5E+04	--	3E-02	--
24413 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	160	Max	7.7E+04	--	2E-03	--
24413 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	160	Max	8.7E+06	2.8E+04	2E-05	6E-08
24413 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	4.169	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24413 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	6.066	95UCL	1.1E+04	--	6E-04	--
24413 NEPTUNE AVE	Benzene	µg/kg	295.5	95UCL	6.9E+04	2.2E+03	4E-03	1E-06
24413 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.5	Max	6.3E+04	6.4E+03	2E-05	2E-09

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24413 NEPTUNE AVE	Bromomethane	µg/kg	2.3	Max	7.8E+03	--	3E-04	--
24413 NEPTUNE AVE	Ethylbenzene	µg/kg	530.9	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24413 NEPTUNE AVE	Naphthalene	mg/kg	2.267	95UCL	1.4E+02	3.9E+01	2E-02	6E-07
24413 NEPTUNE AVE	Pyrene	mg/kg	0.597	95UCL	6.7E+04	--	9E-06	--
24413 NEPTUNE AVE	Toluene	µg/kg	6.821	95UCL	1.6E+07	--	4E-07	--
24413 NEPTUNE AVE	TPH as Diesel	mg/kg	4852	95UCL	1.9E+03	--	3E+00	--
24413 NEPTUNE AVE	TPH as Gasoline	mg/kg	355.7	95UCL	8.6E+02	--	4E-01	--
24413 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5548	95UCL	1.6E+05	--	4E-02	--
24413 NEPTUNE AVE	Xylenes, Total	µg/kg	644.1	95UCL	4.7E+05	--	1E-03	--
24413 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.259	95UCL	7.5E+04	--	3E-06	--
24413 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.25	Max	7.7E+04	--	3E-06	--
24413 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	1	Max	8.7E+06	2.8E+04	1E-07	4E-10
24413 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.341	95UCL	1.9E+05	2.7E+03	2E-06	1E-09
24413 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.666	95UCL	1.1E+04	--	6E-05	--
24413 RAVENNA AVE	Benzene	µg/kg	0.494	95UCL	6.9E+04	2.2E+03	7E-06	2E-09
24413 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	6.6	Max	6.3E+04	6.4E+03	1E-04	1E-08
24413 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	3.2E+03	6.7E+00	1E-04	6E-07
24413 RAVENNA AVE	Cobalt	mg/kg	9.433	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24413 RAVENNA AVE	Ethylbenzene	µg/kg	1.2	Max	4.5E+06	5.1E+04	3E-07	2E-10
24413 RAVENNA AVE	Naphthalene	mg/kg	0.0618	95UCL	1.4E+02	3.9E+01	4E-04	2E-08
24413 RAVENNA AVE	Pyrene	mg/kg	0.531	95UCL	6.7E+04	--	8E-06	--
24413 RAVENNA AVE	Tetrachloroethene	µg/kg	0.25	Max	8.6E+04	1.0E+04	3E-06	3E-10
24413 RAVENNA AVE	Toluene	µg/kg	0.59	95UCL	1.6E+07	--	4E-08	--
24413 RAVENNA AVE	TPH as Diesel	mg/kg	1803	95UCL	1.9E+03	--	1E+00	--
24413 RAVENNA AVE	TPH as Gasoline	mg/kg	0.336	95UCL	8.6E+02	--	4E-04	--
24413 RAVENNA AVE	TPH as Motor Oil	mg/kg	2491	95UCL	1.6E+05	--	2E-02	--
24413 RAVENNA AVE	Xylenes, Total	µg/kg	0.492	95UCL	4.7E+05	--	1E-06	--
24416 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2617	95UCL	7.5E+04	--	4E-02	--
24416 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	360.5	95UCL	7.7E+04	--	5E-03	--
24416 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.46	Max	8.7E+06	2.8E+04	5E-08	2E-10
24416 MARBELLA AVE	1-Methylnaphthalene	mg/kg	5.606	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24416 MARBELLA AVE	2-Methylnaphthalene	mg/kg	11.55	95UCL	1.1E+04	--	1E-03	--
24416 MARBELLA AVE	Benzene	µg/kg	1005	95UCL	6.9E+04	2.2E+03	2E-02	5E-06
24416 MARBELLA AVE	Cobalt	mg/kg	11.01	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24416 MARBELLA AVE	Ethylbenzene	µg/kg	2215	95UCL	4.5E+06	5.1E+04	5E-04	4E-07
24416 MARBELLA AVE	Naphthalene	mg/kg	5.653	95UCL	1.4E+02	3.9E+01	4E-02	2E-06
24416 MARBELLA AVE	Pyrene	mg/kg	2.482	95UCL	6.7E+04	--	4E-05	--
24416 MARBELLA AVE	Toluene	µg/kg	193.5	95UCL	1.6E+07	--	1E-05	--
24416 MARBELLA AVE	TPH as Diesel	mg/kg	6146	95UCL	1.9E+03	--	3E+00	--
24416 MARBELLA AVE	TPH as Gasoline	mg/kg	1002	95UCL	8.6E+02	--	1E+00	--
24416 MARBELLA AVE	TPH as Motor Oil	mg/kg	5536	95UCL	1.6E+05	--	4E-02	--
24416 MARBELLA AVE	Vanadium	mg/kg	39.31	95UCL	3.3E+03	--	1E-02	--
24416 MARBELLA AVE	Xylenes, Total	µg/kg	3684	95UCL	4.7E+05	--	8E-03	--
24416 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	9.8	Max	7.5E+04	--	1E-04	--
24416 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.68	Max	7.7E+04	--	9E-06	--
24416 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.425	95UCL	1.9E+05	2.7E+03	2E-06	2E-09
24416 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.578	95UCL	1.1E+04	--	5E-05	--
24416 NEPTUNE AVE	Benzene	µg/kg	1.675	95UCL	6.9E+04	2.2E+03	2E-05	8E-09
24416 NEPTUNE AVE	Ethylbenzene	µg/kg	12	Max	4.5E+06	5.1E+04	3E-06	2E-09
24416 NEPTUNE AVE	Naphthalene	mg/kg	0.157	95UCL	1.4E+02	3.9E+01	1E-03	4E-08
24416 NEPTUNE AVE	Pyrene	mg/kg	0.279	95UCL	6.7E+04	--	4E-06	--
24416 NEPTUNE AVE	TPH as Diesel	mg/kg	13196	95UCL	1.9E+03	--	7E+00	--
24416 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.273	95UCL	8.6E+02	--	3E-04	--
24416 NEPTUNE AVE	TPH as Motor Oil	mg/kg	25076	95UCL	1.6E+05	--	2E-01	--
24416 NEPTUNE AVE	Xylenes, Total	µg/kg	5.2	Max	4.7E+05	--	1E-05	--
24416 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0186	95UCL	1.1E+04	--	2E-06	--
24416 PANAMA AVE	Benzene	µg/kg	0.246	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24416 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	6.3E+04	6.4E+03	6E-06	6E-10
24416 PANAMA AVE	Cobalt	mg/kg	9.217	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24416 PANAMA AVE	Ethylbenzene	µg/kg	0.21	Max	4.5E+06	5.1E+04	5E-08	4E-11
24416 PANAMA AVE	Naphthalene	mg/kg	0.012	Max	1.4E+02	3.9E+01	9E-05	3E-09

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24416 PANAMA AVE	Pyrene	mg/kg	0.0942	95UCL	6.7E+04	--	1E-06	--
24416 PANAMA AVE	Toluene	µg/kg	0.238	95UCL	1.6E+07	--	2E-08	--
24416 PANAMA AVE	TPH as Diesel	mg/kg	216.2	95UCL	1.9E+03	--	1E-01	--
24416 PANAMA AVE	TPH as Gasoline	mg/kg	0.0862	95UCL	8.6E+02	--	1E-04	--
24416 PANAMA AVE	TPH as Motor Oil	mg/kg	676.3	95UCL	1.6E+05	--	4E-03	--
24416 PANAMA AVE	Xylenes, Total	µg/kg	0.2	Max	4.7E+05	--	4E-07	--
24416 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	214.9	95UCL	7.5E+04	--	3E-03	--
24416 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	18.21	95UCL	7.7E+04	--	2E-04	--
24416 RAVENNA AVE	1-Methylnaphthalene	mg/kg	8.086	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24416 RAVENNA AVE	2-Methylnaphthalene	mg/kg	9.579	95UCL	1.1E+04	--	9E-04	--
24416 RAVENNA AVE	Benzene	µg/kg	0.38	95UCL	6.9E+04	2.2E+03	6E-06	2E-09
24416 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.155	95UCL	3.2E+03	6.7E+00	5E-05	2E-07
24416 RAVENNA AVE	Ethylbenzene	µg/kg	93.35	95UCL	4.5E+06	5.1E+04	2E-05	2E-08
24416 RAVENNA AVE	Naphthalene	mg/kg	2.598	95UCL	1.4E+02	3.9E+01	2E-02	7E-07
24416 RAVENNA AVE	Pyrene	mg/kg	1.713	95UCL	6.7E+04	--	3E-05	--
24416 RAVENNA AVE	Toluene	µg/kg	0.214	95UCL	1.6E+07	--	1E-08	--
24416 RAVENNA AVE	TPH as Diesel	mg/kg	4843	95UCL	1.9E+03	--	3E+00	--
24416 RAVENNA AVE	TPH as Gasoline	mg/kg	170.1	95UCL	8.6E+02	--	2E-01	--
24416 RAVENNA AVE	TPH as Motor Oil	mg/kg	6614	95UCL	1.6E+05	--	4E-02	--
24416 RAVENNA AVE	Xylenes, Total	µg/kg	10.5	95UCL	4.7E+05	--	2E-05	--
24417 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.19	Max	7.5E+04	--	3E-06	--
24417 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0011	Max	1.9E+05	2.7E+03	6E-09	4E-12
24417 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0025	Max	1.1E+04	--	2E-07	--
24417 MARBELLA AVE	Benzene	µg/kg	0.248	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24417 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.39	Max	3.2E+03	6.7E+00	1E-04	6E-07
24417 MARBELLA AVE	Cobalt	mg/kg	12.35	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24417 MARBELLA AVE	Naphthalene	mg/kg	0.0029	Max	1.4E+02	3.9E+01	2E-05	8E-10
24417 MARBELLA AVE	Pyrene	mg/kg	0.09	Max	6.7E+04	--	1E-06	--
24417 MARBELLA AVE	Tetrachloroethene	µg/kg	0.41	Max	8.6E+04	1.0E+04	5E-06	4E-10
24417 MARBELLA AVE	Toluene	µg/kg	0.22	Max	1.6E+07	--	1E-08	--
24417 MARBELLA AVE	TPH as Diesel	mg/kg	85	Max	1.9E+03	--	5E-02	--
24417 MARBELLA AVE	TPH as Motor Oil	mg/kg	250	Max	1.6E+05	--	2E-03	--
24417 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	387.4	95UCL	7.5E+04	--	5E-03	--
24417 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	67.3	95UCL	7.7E+04	--	9E-04	--
24417 PANAMA AVE	1-Methylnaphthalene	mg/kg	5.28	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24417 PANAMA AVE	2-Methylnaphthalene	mg/kg	7.94	95UCL	1.1E+04	--	7E-04	--
24417 PANAMA AVE	Benzene	µg/kg	1119	95UCL	6.9E+04	2.2E+03	2E-02	5E-06
24417 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.22	Max	6.3E+04	6.4E+03	4E-06	3E-10
24417 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.52	Max	3.2E+03	6.7E+00	2E-04	8E-07
24417 PANAMA AVE	Cobalt	mg/kg	9.751	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24417 PANAMA AVE	Ethylbenzene	µg/kg	3372	95UCL	4.5E+06	5.1E+04	7E-04	7E-07
24417 PANAMA AVE	Naphthalene	mg/kg	3.74	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24417 PANAMA AVE	Pyrene	mg/kg	0.49	95UCL	6.7E+04	--	7E-06	--
24417 PANAMA AVE	Toluene	µg/kg	4.644	95UCL	1.6E+07	--	3E-07	--
24417 PANAMA AVE	TPH as Diesel	mg/kg	3329	95UCL	1.9E+03	--	2E+00	--
24417 PANAMA AVE	TPH as Gasoline	mg/kg	612.7	95UCL	8.6E+02	--	7E-01	--
24417 PANAMA AVE	TPH as Motor Oil	mg/kg	3699	95UCL	1.6E+05	--	2E-02	--
24417 PANAMA AVE	Xylenes, Total	µg/kg	621.8	95UCL	4.7E+05	--	1E-03	--
24419 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	113.6	95UCL	7.5E+04	--	2E-03	--
24419 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	27.47	95UCL	7.7E+04	--	4E-04	--
24419 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.306	95UCL	1.9E+05	2.7E+03	7E-06	5E-09
24419 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	2.911	95UCL	1.1E+04	--	3E-04	--
24419 NEPTUNE AVE	Benzene	µg/kg	187.9	95UCL	6.9E+04	2.2E+03	3E-03	8E-07
24419 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.66	Max	6.3E+04	6.4E+03	1E-05	1E-09
24419 NEPTUNE AVE	Bromodichloromethane	µg/kg	0.57	Max	4.9E+05	5.3E+03	1E-06	1E-09
24419 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.32	Max	3.2E+03	6.7E+00	1E-04	5E-07
24419 NEPTUNE AVE	Ethylbenzene	µg/kg	679.8	95UCL	4.5E+06	5.1E+04	2E-04	1E-07
24419 NEPTUNE AVE	Naphthalene	mg/kg	0.64	95UCL	1.4E+02	3.9E+01	5E-03	2E-07
24419 NEPTUNE AVE	Pyrene	mg/kg	0.648	95UCL	6.7E+04	--	1E-05	--
24419 NEPTUNE AVE	Toluene	µg/kg	8.699	95UCL	1.6E+07	--	5E-07	--
24419 NEPTUNE AVE	TPH as Diesel	mg/kg	3530	95UCL	1.9E+03	--	2E+00	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24419 NEPTUNE AVE	TPH as Gasoline	mg/kg	108.9	95UCL	8.6E+02	--	1E-01	--
24419 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3970	95UCL	1.6E+05	--	3E-02	--
24419 NEPTUNE AVE	Xylenes, Total	µg/kg	56.25	95UCL	4.7E+05	--	1E-04	--
24419 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	134.4	95UCL	7.5E+04	--	2E-03	--
24419 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	13.08	95UCL	7.7E+04	--	2E-04	--
24419 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.19	Max	8.7E+06	2.8E+04	2E-08	7E-11
24419 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.604	95UCL	1.9E+05	2.7E+03	3E-06	2E-09
24419 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.879	95UCL	1.1E+04	--	8E-05	--
24419 RAVENNA AVE	Benzene	µg/kg	5.654	95UCL	6.9E+04	2.2E+03	8E-05	3E-08
24419 RAVENNA AVE	Bromomethane	µg/kg	500	Max	7.8E+03	--	6E-02	--
24419 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.148	95UCL	3.2E+03	6.7E+00	5E-05	2E-07
24419 RAVENNA AVE	Ethylbenzene	µg/kg	35.42	95UCL	4.5E+06	5.1E+04	8E-06	7E-09
24419 RAVENNA AVE	Naphthalene	mg/kg	0.162	95UCL	1.4E+02	3.9E+01	1E-03	4E-08
24419 RAVENNA AVE	Pyrene	mg/kg	0.281	95UCL	6.7E+04	--	4E-06	--
24419 RAVENNA AVE	Toluene	µg/kg	0.219	95UCL	1.6E+07	--	1E-08	--
24419 RAVENNA AVE	TPH as Diesel	mg/kg	420.3	95UCL	1.9E+03	--	2E-01	--
24419 RAVENNA AVE	TPH as Gasoline	mg/kg	24.38	95UCL	8.6E+02	--	3E-02	--
24419 RAVENNA AVE	TPH as Motor Oil	mg/kg	514.1	95UCL	1.6E+05	--	3E-03	--
24419 RAVENNA AVE	Xylenes, Total	µg/kg	41.71	95UCL	4.7E+05	--	9E-05	--
24420 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.366	95UCL	7.5E+04	--	5E-06	--
24420 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.25	Max	7.7E+04	--	3E-06	--
24420 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.15	Max	8.7E+06	2.8E+04	2E-08	5E-11
24420 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0154	95UCL	1.9E+05	2.7E+03	8E-08	6E-11
24420 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0779	95UCL	1.1E+04	--	7E-06	--
24420 PANAMA AVE	Benzene	µg/kg	0.346	95UCL	6.9E+04	2.2E+03	5E-06	2E-09
24420 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.22	Max	3.2E+03	6.7E+00	7E-05	3E-07
24420 PANAMA AVE	Ethylbenzene	µg/kg	0.32	Max	4.5E+06	5.1E+04	7E-08	6E-11
24420 PANAMA AVE	Naphthalene	mg/kg	0.0364	95UCL	1.4E+02	3.9E+01	3E-04	9E-09
24420 PANAMA AVE	Pyrene	mg/kg	0.333	95UCL	6.7E+04	--	5E-06	--
24420 PANAMA AVE	Toluene	µg/kg	0.277	95UCL	1.6E+07	--	2E-08	--
24420 PANAMA AVE	TPH as Diesel	mg/kg	1536	95UCL	1.9E+03	--	8E-01	--
24420 PANAMA AVE	TPH as Motor Oil	mg/kg	4737	95UCL	1.6E+05	--	3E-02	--
24420 PANAMA AVE	Xylenes, Total	µg/kg	0.244	95UCL	4.7E+05	--	5E-07	--
24421 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2721	95UCL	7.5E+04	--	4E-02	--
24421 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	525.8	95UCL	7.7E+04	--	7E-03	--
24421 PANAMA AVE	1-Methylnaphthalene	mg/kg	5.706	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24421 PANAMA AVE	2-Methylnaphthalene	mg/kg	15.23	95UCL	1.1E+04	--	1E-03	--
24421 PANAMA AVE	Benzene	µg/kg	18.9	95UCL	6.9E+04	2.2E+03	3E-04	9E-08
24421 PANAMA AVE	Ethylbenzene	µg/kg	2798	95UCL	4.5E+06	5.1E+04	6E-04	6E-07
24421 PANAMA AVE	Naphthalene	mg/kg	8.604	95UCL	1.4E+02	3.9E+01	6E-02	2E-06
24421 PANAMA AVE	Pyrene	mg/kg	0.49	95UCL	6.7E+04	--	7E-06	--
24421 PANAMA AVE	Toluene	µg/kg	50.25	95UCL	1.6E+07	--	3E-06	--
24421 PANAMA AVE	TPH as Diesel	mg/kg	6712	95UCL	1.9E+03	--	4E+00	--
24421 PANAMA AVE	TPH as Gasoline	mg/kg	592.1	95UCL	8.6E+02	--	7E-01	--
24421 PANAMA AVE	TPH as Motor Oil	mg/kg	4525	95UCL	1.6E+05	--	3E-02	--
24421 PANAMA AVE	Xylenes, Total	µg/kg	1913	95UCL	4.7E+05	--	4E-03	--
24422 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	251.8	95UCL	7.5E+04	--	3E-03	--
24422 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	325.9	95UCL	7.7E+04	--	4E-03	--
24422 MARBELLA AVE	1-Methylnaphthalene	mg/kg	3.226	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24422 MARBELLA AVE	2-Methylnaphthalene	mg/kg	4.759	95UCL	1.1E+04	--	4E-04	--
24422 MARBELLA AVE	Benzene	µg/kg	233	95UCL	6.9E+04	2.2E+03	3E-03	1E-06
24422 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.78	Max	6.3E+04	6.4E+03	1E-05	1E-09
24422 MARBELLA AVE	Bromomethane	µg/kg	380	Max	7.8E+03	--	5E-02	--
24422 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.26	Max	3.2E+03	6.7E+00	8E-05	4E-07
24422 MARBELLA AVE	Ethylbenzene	µg/kg	1342	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24422 MARBELLA AVE	Naphthalene	mg/kg	3.255	95UCL	1.4E+02	3.9E+01	2E-02	8E-07
24422 MARBELLA AVE	Pyrene	mg/kg	1.052	95UCL	6.7E+04	--	2E-05	--
24422 MARBELLA AVE	Tetrachloroethene	µg/kg	0.27	Max	8.6E+04	1.0E+04	3E-06	3E-10
24422 MARBELLA AVE	Toluene	µg/kg	36.39	95UCL	1.6E+07	--	2E-06	--
24422 MARBELLA AVE	TPH as Diesel	mg/kg	3609	95UCL	1.9E+03	--	2E+00	--
24422 MARBELLA AVE	TPH as Gasoline	mg/kg	308.3	95UCL	8.6E+02	--	4E-01	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24422 MARBELLA AVE	TPH as Motor Oil	mg/kg	4505	95UCL	1.6E+05	--	3E-02	--
24422 MARBELLA AVE	Xylenes, Total	µg/kg	108.8	95UCL	4.7E+05	--	2E-04	--
24422 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	3.949	95UCL	7.5E+04	--	5E-05	--
24422 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.3	Max	7.7E+04	--	4E-06	--
24422 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.404	95UCL	1.9E+05	2.7E+03	2E-06	2E-09
24422 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.422	95UCL	1.1E+04	--	4E-05	--
24422 NEPTUNE AVE	Benzene	µg/kg	1.445	95UCL	6.9E+04	2.2E+03	2E-05	7E-09
24422 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.3	Max	6.3E+04	6.4E+03	5E-06	5E-10
24422 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.162	95UCL	3.2E+03	6.7E+00	5E-05	2E-07
24422 NEPTUNE AVE	Ethylbenzene	µg/kg	3.14	95UCL	4.5E+06	5.1E+04	7E-07	6E-10
24422 NEPTUNE AVE	Naphthalene	mg/kg	0.143	95UCL	1.4E+02	3.9E+01	1E-03	4E-08
24422 NEPTUNE AVE	Pyrene	mg/kg	0.471	95UCL	6.7E+04	--	7E-06	--
24422 NEPTUNE AVE	Toluene	µg/kg	17.43	95UCL	1.6E+07	--	1E-06	--
24422 NEPTUNE AVE	TPH as Diesel	mg/kg	773.3	95UCL	1.9E+03	--	4E-01	--
24422 NEPTUNE AVE	TPH as Gasoline	mg/kg	39.15	95UCL	8.6E+02	--	5E-02	--
24422 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1149	95UCL	1.6E+05	--	7E-03	--
24422 NEPTUNE AVE	Xylenes, Total	µg/kg	0.676	95UCL	4.7E+05	--	1E-06	--
24422 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	3669	95UCL	7.5E+04	--	5E-02	--
24422 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	105.2	95UCL	7.7E+04	--	1E-03	--
24422 RAVENNA AVE	1-Methylnaphthalene	mg/kg	8.662	95UCL	1.9E+05	2.7E+03	5E-05	3E-08
24422 RAVENNA AVE	2-Methylnaphthalene	mg/kg	14.76	95UCL	1.1E+04	--	1E-03	--
24422 RAVENNA AVE	Benzene	µg/kg	23.05	95UCL	6.9E+04	2.2E+03	3E-04	1E-07
24422 RAVENNA AVE	Bromomethane	µg/kg	0.78	Max	7.8E+03	--	1E-04	--
24422 RAVENNA AVE	Ethylbenzene	µg/kg	450.9	95UCL	4.5E+06	5.1E+04	1E-04	9E-08
24422 RAVENNA AVE	Naphthalene	mg/kg	4.206	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24422 RAVENNA AVE	Pyrene	mg/kg	1.061	95UCL	6.7E+04	--	2E-05	--
24422 RAVENNA AVE	Toluene	µg/kg	10.35	95UCL	1.6E+07	--	6E-07	--
24422 RAVENNA AVE	TPH as Diesel	mg/kg	5380	95UCL	1.9E+03	--	3E+00	--
24422 RAVENNA AVE	TPH as Gasoline	mg/kg	128.3	95UCL	8.6E+02	--	2E-01	--
24422 RAVENNA AVE	TPH as Motor Oil	mg/kg	7297	95UCL	1.6E+05	--	5E-02	--
24422 RAVENNA AVE	Xylenes, Total	µg/kg	465.3	95UCL	4.7E+05	--	1E-03	--
24423 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0076	Max	1.1E+04	--	7E-07	--
24423 MARBELLA AVE	Benzene	µg/kg	0.36	Max	6.9E+04	2.2E+03	5E-06	2E-09
24423 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.27	Max	6.3E+04	6.4E+03	4E-06	4E-10
24423 MARBELLA AVE	Bromomethane	µg/kg	3.4	Max	7.8E+03	--	4E-04	--
24423 MARBELLA AVE	Cobalt	mg/kg	11.77	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24423 MARBELLA AVE	Naphthalene	mg/kg	0.014	Max	1.4E+02	3.9E+01	1E-04	4E-09
24423 MARBELLA AVE	Pyrene	mg/kg	0.00849	95UCL	6.7E+04	--	1E-07	--
24423 MARBELLA AVE	Toluene	µg/kg	1.1	Max	1.6E+07	--	7E-08	--
24423 MARBELLA AVE	TPH as Diesel	mg/kg	110	Max	1.9E+03	--	6E-02	--
24423 MARBELLA AVE	TPH as Gasoline	mg/kg	0.16	Max	8.6E+02	--	2E-04	--
24423 MARBELLA AVE	TPH as Motor Oil	mg/kg	108.5	95UCL	1.6E+05	--	7E-04	--
24423 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1782	95UCL	7.5E+04	--	2E-02	--
24423 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	325.7	95UCL	7.7E+04	--	4E-03	--
24423 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	3.302	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24423 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	8.561	95UCL	1.1E+04	--	8E-04	--
24423 NEPTUNE AVE	Benzene	µg/kg	223.1	95UCL	6.9E+04	2.2E+03	3E-03	1E-06
24423 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.1	Max	6.3E+04	6.4E+03	2E-05	2E-09
24423 NEPTUNE AVE	Bromodichloromethane	µg/kg	0.12	Max	4.9E+05	5.3E+03	3E-07	2E-10
24423 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.53	Max	3.2E+03	6.7E+00	2E-04	8E-07
24423 NEPTUNE AVE	Ethylbenzene	µg/kg	930.4	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24423 NEPTUNE AVE	Naphthalene	mg/kg	3.741	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24423 NEPTUNE AVE	Pyrene	mg/kg	0.609	95UCL	6.7E+04	--	9E-06	--
24423 NEPTUNE AVE	Toluene	µg/kg	10.49	95UCL	1.6E+07	--	6E-07	--
24423 NEPTUNE AVE	TPH as Diesel	mg/kg	5398	95UCL	1.9E+03	--	3E+00	--
24423 NEPTUNE AVE	TPH as Gasoline	mg/kg	206.4	95UCL	8.6E+02	--	2E-01	--
24423 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5357	95UCL	1.6E+05	--	3E-02	--
24423 NEPTUNE AVE	Xylenes, Total	µg/kg	400.5	95UCL	4.7E+05	--	9E-04	--
24423 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	3191	95UCL	7.5E+04	--	4E-02	--
24423 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	642.2	95UCL	7.7E+04	--	8E-03	--
24423 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.14	Max	8.7E+06	2.8E+04	2E-08	5E-11

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24423 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.247	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24423 RAVENNA AVE	2-Methylnaphthalene	mg/kg	5.595	95UCL	1.1E+04	--	5E-04	--
24423 RAVENNA AVE	Benzene	µg/kg	584.3	95UCL	6.9E+04	2.2E+03	9E-03	3E-06
24423 RAVENNA AVE	Bromomethane	µg/kg	2.9	Max	7.8E+03	--	4E-04	--
24423 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.246	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24423 RAVENNA AVE	Cobalt	mg/kg	8.798	95UCL	2.0E+02	1.1E+02	4E-02	8E-07
24423 RAVENNA AVE	Ethylbenzene	µg/kg	1344	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24423 RAVENNA AVE	Naphthalene	mg/kg	2.485	95UCL	1.4E+02	3.9E+01	2E-02	6E-07
24423 RAVENNA AVE	Pyrene	mg/kg	0.326	95UCL	6.7E+04	--	5E-06	--
24423 RAVENNA AVE	Toluene	µg/kg	0.217	95UCL	1.6E+07	--	1E-08	--
24423 RAVENNA AVE	TPH as Diesel	mg/kg	1966	95UCL	1.9E+03	--	1E+00	--
24423 RAVENNA AVE	TPH as Gasoline	mg/kg	321.7	95UCL	8.6E+02	--	4E-01	--
24423 RAVENNA AVE	TPH as Motor Oil	mg/kg	1884	95UCL	1.6E+05	--	1E-02	--
24423 RAVENNA AVE	Xylenes, Total	µg/kg	481.7	95UCL	4.7E+05	--	1E-03	--
24426 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	51	Max	7.5E+04	--	7E-04	--
24426 MARBELLA AVE	1-Methylnaphthalene	mg/kg	2.51	95UCL	1.9E+05	2.7E+03	1E-05	9E-09
24426 MARBELLA AVE	2-Methylnaphthalene	mg/kg	5.701	95UCL	1.1E+04	--	5E-04	--
24426 MARBELLA AVE	Benzene	µg/kg	16.49	95UCL	6.9E+04	2.2E+03	2E-04	7E-08
24426 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.42	Max	3.2E+03	6.7E+00	1E-04	6E-07
24426 MARBELLA AVE	Ethylbenzene	µg/kg	355	95UCL	4.5E+06	5.1E+04	8E-05	7E-08
24426 MARBELLA AVE	Naphthalene	mg/kg	2.663	95UCL	1.4E+02	3.9E+01	2E-02	7E-07
24426 MARBELLA AVE	Pyrene	mg/kg	0.958	95UCL	6.7E+04	--	1E-05	--
24426 MARBELLA AVE	Toluene	µg/kg	0.28	Max	1.6E+07	--	2E-08	--
24426 MARBELLA AVE	TPH as Diesel	mg/kg	8220	95UCL	1.9E+03	--	4E+00	--
24426 MARBELLA AVE	TPH as Gasoline	mg/kg	207.9	95UCL	8.6E+02	--	2E-01	--
24426 MARBELLA AVE	TPH as Motor Oil	mg/kg	13341	95UCL	1.6E+05	--	8E-02	--
24426 MARBELLA AVE	Trichloroethene	µg/kg	64	Max	5.5E+03	1.9E+04	1E-02	3E-08
24426 MARBELLA AVE	Xylenes, Total	µg/kg	0.75	Max	4.7E+05	--	2E-06	--
24426 NEPTUNE AVE	1,1,2,2-Tetrachloroethane	µg/kg	1.6	Max	8.3E+05	5.7E+03	2E-06	3E-09
24426 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.265	95UCL	7.5E+04	--	4E-06	--
24426 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.16	Max	7.7E+04	--	2E-06	--
24426 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0591	95UCL	1.9E+05	2.7E+03	3E-07	2E-10
24426 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	0.082	Max	6.3E+03	2.8E+02	1E-05	3E-09
24426 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0878	95UCL	1.1E+04	--	8E-06	--
24426 NEPTUNE AVE	Benzene	µg/kg	0.382	95UCL	6.9E+04	2.2E+03	6E-06	2E-09
24426 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.27	Max	6.3E+04	6.4E+03	4E-06	4E-10
24426 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.173	95UCL	3.2E+03	6.7E+00	6E-05	3E-07
24426 NEPTUNE AVE	Cobalt	mg/kg	9.717	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24426 NEPTUNE AVE	Ethylbenzene	µg/kg	1.4	Max	4.5E+06	5.1E+04	3E-07	3E-10
24426 NEPTUNE AVE	Naphthalene	mg/kg	0.0211	95UCL	1.4E+02	3.9E+01	2E-04	5E-09
24426 NEPTUNE AVE	Pyrene	mg/kg	0.163	95UCL	6.7E+04	--	2E-06	--
24426 NEPTUNE AVE	Tetrachloroethene	µg/kg	0.26	Max	8.6E+04	1.0E+04	3E-06	3E-10
24426 NEPTUNE AVE	Toluene	µg/kg	0.353	95UCL	1.6E+07	--	2E-08	--
24426 NEPTUNE AVE	TPH as Diesel	mg/kg	823.3	95UCL	1.9E+03	--	4E-01	--
24426 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.672	95UCL	8.6E+02	--	8E-04	--
24426 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2086	95UCL	1.6E+05	--	1E-02	--
24426 NEPTUNE AVE	Trichloroethene	µg/kg	0.23	Max	5.5E+03	1.9E+04	4E-05	1E-10
24426 NEPTUNE AVE	Xylenes, Total	µg/kg	0.509	95UCL	4.7E+05	--	1E-06	--
24426 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.33	Max	8.7E+06	2.8E+04	4E-08	1E-10
24426 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.003	Max	1.9E+05	2.7E+03	2E-08	1E-11
24426 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.029	95UCL	1.1E+04	--	3E-06	--
24426 PANAMA AVE	Benzene	µg/kg	0.826	95UCL	6.9E+04	2.2E+03	1E-05	4E-09
24426 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.3	Max	3.2E+03	6.7E+00	1E-04	5E-07
24426 PANAMA AVE	Cobalt	mg/kg	9.768	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24426 PANAMA AVE	Ethylbenzene	µg/kg	0.5	Max	4.5E+06	5.1E+04	1E-07	1E-10
24426 PANAMA AVE	Naphthalene	mg/kg	0.00909	95UCL	1.4E+02	3.9E+01	6E-05	2E-09
24426 PANAMA AVE	Pyrene	mg/kg	0.0849	95UCL	6.7E+04	--	1E-06	--
24426 PANAMA AVE	Toluene	µg/kg	0.298	95UCL	1.6E+07	--	2E-08	--
24426 PANAMA AVE	TPH as Diesel	mg/kg	953.2	95UCL	1.9E+03	--	5E-01	--
24426 PANAMA AVE	TPH as Gasoline	mg/kg	0.112	95UCL	8.6E+02	--	1E-04	--
24426 PANAMA AVE	TPH as Motor Oil	mg/kg	2016	95UCL	1.6E+05	--	1E-02	--

Appendix E
Detailed Risk Calculations

Table E-4
CO-C-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24426 PANAMA AVE	Xylenes, Total	µg/kg	0.59	Max	4.7E+05	--	1E-06	--
24426 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	3351	95UCL	7.5E+04	--	4E-02	--
24426 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	124.6	95UCL	7.7E+04	--	2E-03	--
24426 RAVENNA AVE	1-Methylnaphthalene	mg/kg	5.382	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24426 RAVENNA AVE	2-Methylnaphthalene	mg/kg	8.915	95UCL	1.1E+04	--	8E-04	--
24426 RAVENNA AVE	Benzene	µg/kg	126.8	95UCL	6.9E+04	2.2E+03	2E-03	6E-07
24426 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.21	Max	6.3E+04	6.4E+03	3E-06	3E-10
24426 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.321	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24426 RAVENNA AVE	Cobalt	mg/kg	9.748	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24426 RAVENNA AVE	Ethylbenzene	µg/kg	652	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24426 RAVENNA AVE	Naphthalene	mg/kg	2.956	95UCL	1.4E+02	3.9E+01	2E-02	8E-07
24426 RAVENNA AVE	Pyrene	mg/kg	2.033	95UCL	6.7E+04	--	3E-05	--
24426 RAVENNA AVE	Toluene	µg/kg	3.711	95UCL	1.6E+07	--	2E-07	--
24426 RAVENNA AVE	TPH as Diesel	mg/kg	3043	95UCL	1.9E+03	--	2E+00	--
24426 RAVENNA AVE	TPH as Gasoline	mg/kg	222.1	95UCL	8.6E+02	--	3E-01	--
24426 RAVENNA AVE	TPH as Motor Oil	mg/kg	2931	95UCL	1.6E+05	--	2E-02	--
24426 RAVENNA AVE	Xylenes, Total	µg/kg	1071	95UCL	4.7E+05	--	2E-03	--
24427 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0062	Max	1.9E+05	2.7E+03	3E-08	2E-11
24427 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00717	95UCL	1.1E+04	--	7E-07	--
24427 MARBELLA AVE	Benzene	µg/kg	0.184	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24427 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.2	Max	6.3E+04	6.4E+03	3E-06	3E-10
24427 MARBELLA AVE	Cobalt	mg/kg	13.15	95UCL	2.0E+02	1.1E+02	7E-02	1E-06
24427 MARBELLA AVE	Naphthalene	mg/kg	0.00233	95UCL	1.4E+02	3.9E+01	2E-05	6E-10
24427 MARBELLA AVE	Pyrene	mg/kg	0.0203	95UCL	6.7E+04	--	3E-07	--
24427 MARBELLA AVE	Tetrachloroethene	µg/kg	3.73	95UCL	8.6E+04	1.0E+04	4E-05	4E-09
24427 MARBELLA AVE	Toluene	µg/kg	0.196	95UCL	1.6E+07	--	1E-08	--
24427 MARBELLA AVE	TPH as Diesel	mg/kg	60.64	95UCL	1.9E+03	--	3E-02	--
24427 MARBELLA AVE	TPH as Gasoline	mg/kg	0.16	Max	8.6E+02	--	2E-04	--
24427 MARBELLA AVE	TPH as Motor Oil	mg/kg	195.2	95UCL	1.6E+05	--	1E-03	--
24427 MARBELLA AVE	Trichloroethene	µg/kg	0.25	Max	5.5E+03	1.9E+04	5E-05	1E-10
24427 MARBELLA AVE	Vanadium	mg/kg	43.36	95UCL	3.3E+03	--	1E-02	--
24427 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	430.7	95UCL	7.5E+04	--	6E-03	--
24427 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	240	Max	7.7E+04	--	3E-03	--
24427 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.372	95UCL	1.9E+05	2.7E+03	2E-06	1E-09
24427 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.926	95UCL	1.1E+04	--	8E-05	--
24427 PANAMA AVE	Benzene	µg/kg	17.28	95UCL	6.9E+04	2.2E+03	3E-04	8E-08
24427 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.38	Max	6.3E+04	6.4E+03	6E-06	6E-10
24427 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.56	Max	3.2E+03	6.7E+00	2E-04	8E-07
24427 PANAMA AVE	Cobalt	mg/kg	9.822	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24427 PANAMA AVE	Ethylbenzene	µg/kg	383.5	95UCL	4.5E+06	5.1E+04	9E-05	8E-08
24427 PANAMA AVE	Naphthalene	mg/kg	0.761	95UCL	1.4E+02	3.9E+01	5E-03	2E-07
24427 PANAMA AVE	Pyrene	mg/kg	0.843	95UCL	6.7E+04	--	1E-05	--
24427 PANAMA AVE	Toluene	µg/kg	2.764	95UCL	1.6E+07	--	2E-07	--
24427 PANAMA AVE	TPH as Diesel	mg/kg	1731	95UCL	1.9E+03	--	9E-01	--
24427 PANAMA AVE	TPH as Gasoline	mg/kg	107.2	95UCL	8.6E+02	--	1E-01	--
24427 PANAMA AVE	TPH as Motor Oil	mg/kg	2773	95UCL	1.6E+05	--	2E-02	--
24427 PANAMA AVE	Xylenes, Total	µg/kg	69.87	95UCL	4.7E+05	--	2E-04	--
24429 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	3408	95UCL	7.5E+04	--	5E-02	--
24429 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	3200	Max	7.7E+04	--	4E-02	--
24429 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	3.916	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24429 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.647	95UCL	1.1E+04	--	4E-04	--
24429 NEPTUNE AVE	Benzene	µg/kg	428.7	95UCL	6.9E+04	2.2E+03	6E-03	2E-06
24429 NEPTUNE AVE	Bromomethane	µg/kg	160	Max	7.8E+03	--	2E-02	--
24429 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.31	Max	3.2E+03	6.7E+00	1E-04	5E-07
24429 NEPTUNE AVE	Ethylbenzene	µg/kg	784.2	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24429 NEPTUNE AVE	Naphthalene	mg/kg	1.599	95UCL	1.4E+02	3.9E+01	1E-02	4E-07
24429 NEPTUNE AVE	Pyrene	mg/kg	0.633	95UCL	6.7E+04	--	1E-05	--
24429 NEPTUNE AVE	Tetrachloroethene	µg/kg	0.17	Max	8.6E+04	1.0E+04	2E-06	2E-10
24429 NEPTUNE AVE	Toluene	µg/kg	0.276	95UCL	1.6E+07	--	2E-08	--
24429 NEPTUNE AVE	TPH as Diesel	mg/kg	7341	95UCL	1.9E+03	--	4E+00	--
24429 NEPTUNE AVE	TPH as Gasoline	mg/kg	545.9	95UCL	8.6E+02	--	6E-01	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24429 NEPTUNE AVE	TPH as Motor Oil	mg/kg	8182	95UCL	1.6E+05	--	5E-02	--
24429 NEPTUNE AVE	Xylenes, Total	µg/kg	2049	95UCL	4.7E+05	--	4E-03	--
24429 RAVENNA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.221	95UCL	8.3E+05	5.7E+03	3E-07	4E-10
24429 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	620	Max	7.5E+04	--	8E-03	--
24429 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	21	Max	7.7E+04	--	3E-04	--
24429 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.261	95UCL	1.9E+05	2.7E+03	1E-06	1E-09
24429 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.279	95UCL	1.1E+04	--	3E-05	--
24429 RAVENNA AVE	Benzene	µg/kg	0.265	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24429 RAVENNA AVE	Bromomethane	µg/kg	170	Max	7.8E+03	--	2E-02	--
24429 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.37	Max	3.2E+03	6.7E+00	1E-04	6E-07
24429 RAVENNA AVE	Ethylbenzene	µg/kg	560	Max	4.5E+06	5.1E+04	1E-04	1E-07
24429 RAVENNA AVE	Naphthalene	mg/kg	0.263	95UCL	1.4E+02	3.9E+01	2E-03	7E-08
24429 RAVENNA AVE	Pyrene	mg/kg	0.296	95UCL	6.7E+04	--	4E-06	--
24429 RAVENNA AVE	Toluene	µg/kg	0.242	95UCL	1.6E+07	--	2E-08	--
24429 RAVENNA AVE	TPH as Diesel	mg/kg	808.8	95UCL	1.9E+03	--	4E-01	--
24429 RAVENNA AVE	TPH as Gasoline	mg/kg	71.14	95UCL	8.6E+02	--	8E-02	--
24429 RAVENNA AVE	TPH as Motor Oil	mg/kg	1138	95UCL	1.6E+05	--	7E-03	--
24429 RAVENNA AVE	Xylenes, Total	µg/kg	6.331	95UCL	4.7E+05	--	1E-05	--
24430 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.14	Max	7.5E+04	--	2E-06	--
24430 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0024	Max	1.9E+05	2.7E+03	1E-08	9E-12
24430 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00729	95UCL	1.1E+04	--	7E-07	--
24430 PANAMA AVE	Benzene	µg/kg	0.579	95UCL	6.9E+04	2.2E+03	8E-06	3E-09
24430 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.22	Max	6.3E+04	6.4E+03	4E-06	3E-10
24430 PANAMA AVE	Bromomethane	µg/kg	2	Max	7.8E+03	--	3E-04	--
24430 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.342	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24430 PANAMA AVE	Ethylbenzene	µg/kg	0.62	Max	4.5E+06	5.1E+04	1E-07	1E-10
24430 PANAMA AVE	Naphthalene	mg/kg	0.00447	95UCL	1.4E+02	3.9E+01	3E-05	1E-09
24430 PANAMA AVE	Pyrene	mg/kg	0.0417	95UCL	6.7E+04	--	6E-07	--
24430 PANAMA AVE	Toluene	µg/kg	0.373	95UCL	1.6E+07	--	2E-08	--
24430 PANAMA AVE	TPH as Diesel	mg/kg	34.13	95UCL	1.9E+03	--	2E-02	--
24430 PANAMA AVE	TPH as Gasoline	mg/kg	0.0759	95UCL	8.6E+02	--	9E-05	--
24430 PANAMA AVE	TPH as Motor Oil	mg/kg	91.05	95UCL	1.6E+05	--	6E-04	--
24430 PANAMA AVE	Xylenes, Total	µg/kg	0.29	Max	4.7E+05	--	6E-07	--
24431 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.23	Max	8.3E+05	5.7E+03	3E-07	4E-10
24431 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.326	95UCL	7.5E+04	--	4E-06	--
24431 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.385	95UCL	1.9E+05	2.7E+03	2E-06	1E-09
24431 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.474	95UCL	1.1E+04	--	4E-05	--
24431 PANAMA AVE	Benzene	µg/kg	0.336	95UCL	6.9E+04	2.2E+03	5E-06	2E-09
24431 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.6	Max	3.2E+03	6.7E+00	2E-04	9E-07
24431 PANAMA AVE	Cobalt	mg/kg	10.42	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24431 PANAMA AVE	Ethylbenzene	µg/kg	100.8	95UCL	4.5E+06	5.1E+04	2E-05	2E-08
24431 PANAMA AVE	Naphthalene	mg/kg	0.207	95UCL	1.4E+02	3.9E+01	2E-03	5E-08
24431 PANAMA AVE	Pyrene	mg/kg	0.192	95UCL	6.7E+04	--	3E-06	--
24431 PANAMA AVE	Tetrachloroethene	µg/kg	8.3	Max	8.6E+04	1.0E+04	1E-04	8E-09
24431 PANAMA AVE	Toluene	µg/kg	0.243	95UCL	1.6E+07	--	2E-08	--
24431 PANAMA AVE	TPH as Diesel	mg/kg	1203	95UCL	1.9E+03	--	6E-01	--
24431 PANAMA AVE	TPH as Gasoline	mg/kg	33.38	95UCL	8.6E+02	--	4E-02	--
24431 PANAMA AVE	TPH as Motor Oil	mg/kg	2101	95UCL	1.6E+05	--	1E-02	--
24431 PANAMA AVE	Trichloroethene	µg/kg	0.4	Max	5.5E+03	1.9E+04	7E-05	2E-10
24431 PANAMA AVE	Xylenes, Total	µg/kg	2.846	95UCL	4.7E+05	--	6E-06	--
24432 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	11.59	95UCL	7.5E+04	--	2E-04	--
24432 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1.913	95UCL	7.7E+04	--	3E-05	--
24432 MARBELLA AVE	1-Methylnaphthalene	mg/kg	1.522	95UCL	1.9E+05	2.7E+03	8E-06	6E-09
24432 MARBELLA AVE	2-Methylnaphthalene	mg/kg	2.151	95UCL	1.1E+04	--	2E-04	--
24432 MARBELLA AVE	Benzene	µg/kg	35.31	95UCL	6.9E+04	2.2E+03	5E-04	2E-07
24432 MARBELLA AVE	Ethylbenzene	µg/kg	699.4	95UCL	4.5E+06	5.1E+04	2E-04	1E-07
24432 MARBELLA AVE	Naphthalene	mg/kg	1.287	95UCL	1.4E+02	3.9E+01	9E-03	3E-07
24432 MARBELLA AVE	Pyrene	mg/kg	0.429	95UCL	6.7E+04	--	6E-06	--
24432 MARBELLA AVE	Toluene	µg/kg	2.764	95UCL	1.6E+07	--	2E-07	--
24432 MARBELLA AVE	TPH as Diesel	mg/kg	2948	95UCL	1.9E+03	--	2E+00	--
24432 MARBELLA AVE	TPH as Gasoline	mg/kg	165.7	95UCL	8.6E+02	--	2E-01	--

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24432 MARBELLA AVE	TPH as Motor Oil	mg/kg	3877	95UCL	1.6E+05	--	2E-02	--
24432 MARBELLA AVE	Trichloroethene	µg/kg	24	Max	5.5E+03	1.9E+04	4E-03	1E-08
24432 MARBELLA AVE	Xylenes, Total	µg/kg	22.19	95UCL	4.7E+05	--	5E-05	--
24433 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	4.479	95UCL	7.5E+04	--	6E-05	--
24433 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.197	95UCL	7.7E+04	--	3E-06	--
24433 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0079	95UCL	1.9E+05	2.7E+03	4E-08	3E-11
24433 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.011	95UCL	1.1E+04	--	1E-06	--
24433 MARBELLA AVE	Benzene	µg/kg	0.16	Max	6.9E+04	2.2E+03	2E-06	7E-10
24433 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.171	95UCL	3.2E+03	6.7E+00	5E-05	3E-07
24433 MARBELLA AVE	Cobalt	mg/kg	12.85	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24433 MARBELLA AVE	Ethylbenzene	µg/kg	0.64	Max	4.5E+06	5.1E+04	1E-07	1E-10
24433 MARBELLA AVE	Naphthalene	mg/kg	0.0479	95UCL	1.4E+02	3.9E+01	3E-04	1E-08
24433 MARBELLA AVE	Pyrene	mg/kg	0.025	95UCL	6.7E+04	--	4E-07	--
24433 MARBELLA AVE	Tetrachloroethene	µg/kg	3837	95UCL	8.6E+04	1.0E+04	5E-02	4E-06
24433 MARBELLA AVE	Toluene	µg/kg	17.93	95UCL	1.6E+07	--	1E-06	--
24433 MARBELLA AVE	TPH as Diesel	mg/kg	3456	95UCL	1.9E+03	--	2E+00	--
24433 MARBELLA AVE	TPH as Gasoline	mg/kg	0.19	Max	8.6E+02	--	2E-04	--
24433 MARBELLA AVE	TPH as Motor Oil	mg/kg	7531	95UCL	1.6E+05	--	5E-02	--
24433 MARBELLA AVE	Trichloroethene	µg/kg	140	Max	5.5E+03	1.9E+04	3E-02	8E-08
24433 MARBELLA AVE	Vanadium	mg/kg	41.88	95UCL	3.3E+03	--	1E-02	--
24433 MARBELLA AVE	Xylenes, Total	µg/kg	21.62	95UCL	4.7E+05	--	5E-05	--
24436 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	0.91	Max	2.0E+03	7.2E+03	5E-04	1E-09
24436 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.217	95UCL	7.5E+04	--	3E-06	--
24436 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.026	Max	1.9E+05	2.7E+03	1E-07	1E-10
24436 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00749	95UCL	1.1E+04	--	7E-07	--
24436 PANAMA AVE	Benzene	µg/kg	1.761	95UCL	6.9E+04	2.2E+03	3E-05	8E-09
24436 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.45	Max	6.3E+04	6.4E+03	7E-06	7E-10
24436 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.303	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24436 PANAMA AVE	Ethylbenzene	µg/kg	0.479	95UCL	4.5E+06	5.1E+04	1E-07	9E-11
24436 PANAMA AVE	Naphthalene	mg/kg	0.00359	95UCL	1.4E+02	3.9E+01	3E-05	9E-10
24436 PANAMA AVE	Pyrene	mg/kg	0.0249	95UCL	6.7E+04	--	4E-07	--
24436 PANAMA AVE	Toluene	µg/kg	0.394	95UCL	1.6E+07	--	2E-08	--
24436 PANAMA AVE	TPH as Diesel	mg/kg	24.63	95UCL	1.9E+03	--	1E-02	--
24436 PANAMA AVE	TPH as Gasoline	mg/kg	0.087	Max	8.6E+02	--	1E-04	--
24436 PANAMA AVE	TPH as Motor Oil	mg/kg	76.43	95UCL	1.6E+05	--	5E-04	--
24436 PANAMA AVE	Xylenes, Total	µg/kg	0.2	Max	4.7E+05	--	4E-07	--
24502 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	71.31	95UCL	7.5E+04	--	1E-03	--
24502 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	9.236	95UCL	7.7E+04	--	1E-04	--
24502 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.17	Max	8.7E+06	2.8E+04	2E-08	6E-11
24502 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.787	95UCL	1.9E+05	2.7E+03	4E-06	3E-09
24502 MARBELLA AVE	2-Methylnaphthalene	mg/kg	1.794	95UCL	1.1E+04	--	2E-04	--
24502 MARBELLA AVE	Benzene	µg/kg	4.998	95UCL	6.9E+04	2.2E+03	7E-05	2E-08
24502 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	6.3E+04	6.4E+03	3E-06	3E-10
24502 MARBELLA AVE	Bromodichloromethane	µg/kg	0.19	Max	4.9E+05	5.3E+03	4E-07	4E-10
24502 MARBELLA AVE	Bromomethane	µg/kg	23.61	95UCL	7.8E+03	--	3E-03	--
24502 MARBELLA AVE	Cobalt	mg/kg	9.689	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24502 MARBELLA AVE	Ethylbenzene	µg/kg	384.5	95UCL	4.5E+06	5.1E+04	9E-05	8E-08
24502 MARBELLA AVE	Naphthalene	mg/kg	0.824	95UCL	1.4E+02	3.9E+01	6E-03	2E-07
24502 MARBELLA AVE	Pyrene	mg/kg	0.286	95UCL	6.7E+04	--	4E-06	--
24502 MARBELLA AVE	Toluene	µg/kg	5.616	95UCL	1.6E+07	--	3E-07	--
24502 MARBELLA AVE	TPH as Diesel	mg/kg	2303	95UCL	1.9E+03	--	1E+00	--
24502 MARBELLA AVE	TPH as Gasoline	mg/kg	153.8	95UCL	8.6E+02	--	2E-01	--
24502 MARBELLA AVE	TPH as Motor Oil	mg/kg	3126	95UCL	1.6E+05	--	2E-02	--
24502 MARBELLA AVE	Xylenes, Total	µg/kg	37.38	95UCL	4.7E+05	--	8E-05	--
24502 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	7.305	95UCL	7.5E+04	--	1E-04	--
24502 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	9.7	Max	7.7E+04	--	1E-04	--
24502 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.217	95UCL	1.9E+05	2.7E+03	1E-06	8E-10
24502 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.129	95UCL	1.1E+04	--	1E-05	--
24502 NEPTUNE AVE	Benzene	µg/kg	0.132	95UCL	6.9E+04	2.2E+03	2E-06	6E-10
24502 NEPTUNE AVE	Bromodichloromethane	µg/kg	27	Max	4.9E+05	5.3E+03	6E-05	5E-08
24502 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.33	95UCL	3.2E+03	6.7E+00	1E-04	5E-07

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24502 NEPTUNE AVE	Ethylbenzene	µg/kg	24.43	95UCL	4.5E+06	5.1E+04	5E-06	5E-09
24502 NEPTUNE AVE	Naphthalene	mg/kg	0.11	95UCL	1.4E+02	3.9E+01	8E-04	3E-08
24502 NEPTUNE AVE	Pyrene	mg/kg	0.247	95UCL	6.7E+04	--	4E-06	--
24502 NEPTUNE AVE	Toluene	µg/kg	0.15	95UCL	1.6E+07	--	9E-09	--
24502 NEPTUNE AVE	TPH as Diesel	mg/kg	2321	95UCL	1.9E+03	--	1E+00	--
24502 NEPTUNE AVE	TPH as Gasoline	mg/kg	36.3	95UCL	8.6E+02	--	4E-02	--
24502 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3580	95UCL	1.6E+05	--	2E-02	--
24502 NEPTUNE AVE	Xylenes, Total	µg/kg	5.732	95UCL	4.7E+05	--	1E-05	--
24502 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00268	95UCL	1.9E+05	2.7E+03	1E-08	1E-11
24502 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00226	95UCL	1.1E+04	--	2E-07	--
24502 PANAMA AVE	Benzene	µg/kg	1.183	95UCL	6.9E+04	2.2E+03	2E-05	5E-09
24502 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.26	Max	6.3E+04	6.4E+03	4E-06	4E-10
24502 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.223	95UCL	3.2E+03	6.7E+00	7E-05	3E-07
24502 PANAMA AVE	Ethylbenzene	µg/kg	0.426	95UCL	4.5E+06	5.1E+04	9E-08	8E-11
24502 PANAMA AVE	Naphthalene	mg/kg	0.0017	95UCL	1.4E+02	3.9E+01	1E-05	4E-10
24502 PANAMA AVE	Pyrene	mg/kg	0.00358	95UCL	6.7E+04	--	5E-08	--
24502 PANAMA AVE	Toluene	µg/kg	0.33	95UCL	1.6E+07	--	2E-08	--
24502 PANAMA AVE	TPH as Diesel	mg/kg	43	Max	1.9E+03	--	2E-02	--
24502 PANAMA AVE	TPH as Gasoline	mg/kg	0.0816	95UCL	8.6E+02	--	1E-04	--
24502 PANAMA AVE	TPH as Motor Oil	mg/kg	19.94	95UCL	1.6E+05	--	1E-04	--
24502 PANAMA AVE	Xylenes, Total	µg/kg	0.23	Max	4.7E+05	--	5E-07	--
24502 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1594	95UCL	7.5E+04	--	2E-02	--
24502 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1200	Max	7.7E+04	--	2E-02	--
24502 RAVENNA AVE	1-Methylnaphthalene	mg/kg	4.321	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24502 RAVENNA AVE	2-Methylnaphthalene	mg/kg	6.801	95UCL	1.1E+04	--	6E-04	--
24502 RAVENNA AVE	Benzene	µg/kg	110.3	95UCL	6.9E+04	2.2E+03	2E-03	5E-07
24502 RAVENNA AVE	Bromomethane	µg/kg	900	Max	7.8E+03	--	1E-01	--
24502 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.369	95UCL	3.2E+03	6.7E+00	1E-04	6E-07
24502 RAVENNA AVE	Ethylbenzene	µg/kg	577.6	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24502 RAVENNA AVE	Naphthalene	mg/kg	2.498	95UCL	1.4E+02	3.9E+01	2E-02	6E-07
24502 RAVENNA AVE	Pyrene	mg/kg	1.041	95UCL	6.7E+04	--	2E-05	--
24502 RAVENNA AVE	Toluene	µg/kg	0.154	95UCL	1.6E+07	--	9E-09	--
24502 RAVENNA AVE	TPH as Diesel	mg/kg	3606	95UCL	1.9E+03	--	2E+00	--
24502 RAVENNA AVE	TPH as Gasoline	mg/kg	320.5	95UCL	8.6E+02	--	4E-01	--
24502 RAVENNA AVE	TPH as Motor Oil	mg/kg	3824	95UCL	1.6E+05	--	2E-02	--
24502 RAVENNA AVE	Xylenes, Total	µg/kg	532.9	95UCL	4.7E+05	--	1E-03	--
24503 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.27	Max	7.5E+04	--	4E-06	--
24503 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0075	Max	1.9E+05	2.7E+03	4E-08	3E-11
24503 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00165	95UCL	1.1E+04	--	2E-07	--
24503 MARBELLA AVE	Benzene	µg/kg	0.205	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24503 MARBELLA AVE	Cobalt	mg/kg	13.81	95UCL	2.0E+02	1.1E+02	7E-02	1E-06
24503 MARBELLA AVE	Naphthalene	mg/kg	0.00812	95UCL	1.4E+02	3.9E+01	6E-05	2E-09
24503 MARBELLA AVE	Pyrene	mg/kg	0.0234	95UCL	6.7E+04	--	4E-07	--
24503 MARBELLA AVE	Tetrachloroethene	µg/kg	2.304	95UCL	8.6E+04	1.0E+04	3E-05	2E-09
24503 MARBELLA AVE	Toluene	µg/kg	0.244	95UCL	1.6E+07	--	2E-08	--
24503 MARBELLA AVE	TPH as Diesel	mg/kg	39.41	95UCL	1.9E+03	--	2E-02	--
24503 MARBELLA AVE	TPH as Gasoline	mg/kg	0.17	Max	8.6E+02	--	2E-04	--
24503 MARBELLA AVE	TPH as Motor Oil	mg/kg	97.78	95UCL	1.6E+05	--	6E-04	--
24503 MARBELLA AVE	Trichloroethene	µg/kg	0.26	Max	5.5E+03	1.9E+04	5E-05	1E-10
24503 MARBELLA AVE	Vanadium	mg/kg	42.17	95UCL	3.3E+03	--	1E-02	--
24503 MARBELLA AVE	Xylenes, Total	µg/kg	0.21	Max	4.7E+05	--	5E-07	--
24503 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	195.2	95UCL	7.5E+04	--	3E-03	--
24503 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	77.44	95UCL	7.7E+04	--	1E-03	--
24503 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.077	95UCL	1.9E+05	2.7E+03	6E-06	4E-09
24503 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	2.316	95UCL	1.1E+04	--	2E-04	--
24503 NEPTUNE AVE	Benzene	µg/kg	16.3	95UCL	6.9E+04	2.2E+03	2E-04	7E-08
24503 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.2	Max	6.3E+04	6.4E+03	2E-05	2E-09
24503 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.26	Max	3.2E+03	6.7E+00	8E-05	4E-07
24503 NEPTUNE AVE	Ethylbenzene	µg/kg	317.6	95UCL	4.5E+06	5.1E+04	7E-05	6E-08
24503 NEPTUNE AVE	Naphthalene	mg/kg	0.874	95UCL	1.4E+02	3.9E+01	6E-03	2E-07
24503 NEPTUNE AVE	Pyrene	mg/kg	0.582	95UCL	6.7E+04	--	9E-06	--

Appendix E
Detailed Risk Calculations

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COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24503 NEPTUNE AVE	Toluene	µg/kg	0.197	95UCL	1.6E+07	--	1E-08	--
24503 NEPTUNE AVE	TPH as Diesel	mg/kg	8762	95UCL	1.9E+03	--	5E+00	--
24503 NEPTUNE AVE	TPH as Gasoline	mg/kg	239.7	95UCL	8.6E+02	--	3E-01	--
24503 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6378	95UCL	1.6E+05	--	4E-02	--
24503 NEPTUNE AVE	Xylenes, Total	µg/kg	343	95UCL	4.7E+05	--	7E-04	--
24503 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	131.2	95UCL	7.5E+04	--	2E-03	--
24503 PANAMA AVE	1,2-Dichloropropane	µg/kg	100	Max	1.2E+04	8.5E+03	8E-03	1E-07
24503 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	11.61	95UCL	7.7E+04	--	2E-04	--
24503 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.552	95UCL	1.9E+05	2.7E+03	8E-06	6E-09
24503 PANAMA AVE	2-Methylnaphthalene	mg/kg	4.323	95UCL	1.1E+04	--	4E-04	--
24503 PANAMA AVE	Benzene	µg/kg	49.61	95UCL	6.9E+04	2.2E+03	7E-04	2E-07
24503 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.26	Max	6.3E+04	6.4E+03	4E-06	4E-10
24503 PANAMA AVE	Ethylbenzene	µg/kg	560.2	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24503 PANAMA AVE	Naphthalene	mg/kg	1.038	95UCL	1.4E+02	3.9E+01	7E-03	3E-07
24503 PANAMA AVE	Pyrene	mg/kg	0.305	95UCL	6.7E+04	--	5E-06	--
24503 PANAMA AVE	Toluene	µg/kg	7.6	95UCL	1.6E+07	--	5E-07	--
24503 PANAMA AVE	TPH as Diesel	mg/kg	3450	95UCL	1.9E+03	--	2E+00	--
24503 PANAMA AVE	TPH as Gasoline	mg/kg	160.4	95UCL	8.6E+02	--	2E-01	--
24503 PANAMA AVE	TPH as Motor Oil	mg/kg	4023	95UCL	1.6E+05	--	3E-02	--
24503 PANAMA AVE	Xylenes, Total	µg/kg	156.6	95UCL	4.7E+05	--	3E-04	--
24503 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	80.57	95UCL	7.5E+04	--	1E-03	--
24503 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	7.648	95UCL	7.7E+04	--	1E-04	--
24503 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.001	95UCL	1.9E+05	2.7E+03	1E-05	8E-09
24503 RAVENNA AVE	2-Methylnaphthalene	mg/kg	2.988	95UCL	1.1E+04	--	3E-04	--
24503 RAVENNA AVE	Benzene	µg/kg	0.724	95UCL	6.9E+04	2.2E+03	1E-05	3E-09
24503 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.4	Max	6.3E+04	6.4E+03	6E-06	6E-10
24503 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	3.2E+03	6.7E+00	1E-04	6E-07
24503 RAVENNA AVE	Ethylbenzene	µg/kg	26.13	95UCL	4.5E+06	5.1E+04	6E-06	5E-09
24503 RAVENNA AVE	Methylene Chloride	µg/kg	3	Max	1.2E+06	5.9E+04	2E-06	5E-10
24503 RAVENNA AVE	Naphthalene	mg/kg	1.009	95UCL	1.4E+02	3.9E+01	7E-03	3E-07
24503 RAVENNA AVE	Pyrene	mg/kg	0.588	95UCL	6.7E+04	--	9E-06	--
24503 RAVENNA AVE	Toluene	µg/kg	0.675	95UCL	1.6E+07	--	4E-08	--
24503 RAVENNA AVE	TPH as Diesel	mg/kg	1067	95UCL	1.9E+03	--	6E-01	--
24503 RAVENNA AVE	TPH as Gasoline	mg/kg	247.6	95UCL	8.6E+02	--	3E-01	--
24503 RAVENNA AVE	TPH as Motor Oil	mg/kg	1309	95UCL	1.6E+05	--	8E-03	--
24503 RAVENNA AVE	Xylenes, Total	µg/kg	12.54	95UCL	4.7E+05	--	3E-05	--
24506 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2786	95UCL	7.5E+04	--	4E-02	--
24506 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	834.1	95UCL	7.7E+04	--	1E-02	--
24506 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.19	Max	8.7E+06	2.8E+04	2E-08	7E-11
24506 MARBELLA AVE	1-Methylnaphthalene	mg/kg	7.249	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24506 MARBELLA AVE	2-Methylnaphthalene	mg/kg	11.3	95UCL	1.1E+04	--	1E-03	--
24506 MARBELLA AVE	Benzene	µg/kg	930.1	95UCL	6.9E+04	2.2E+03	1E-02	4E-06
24506 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.1	Max	6.3E+04	6.4E+03	2E-05	2E-09
24506 MARBELLA AVE	Bromomethane	µg/kg	220	Max	7.8E+03	--	3E-02	--
24506 MARBELLA AVE	Cobalt	mg/kg	10.22	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24506 MARBELLA AVE	Ethylbenzene	µg/kg	1474	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24506 MARBELLA AVE	Methylene Chloride	µg/kg	4.4	Max	1.2E+06	5.9E+04	4E-06	8E-10
24506 MARBELLA AVE	Naphthalene	mg/kg	4.233	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24506 MARBELLA AVE	Pyrene	mg/kg	1.021	95UCL	6.7E+04	--	2E-05	--
24506 MARBELLA AVE	Toluene	µg/kg	1574	95UCL	1.6E+07	--	1E-04	--
24506 MARBELLA AVE	TPH as Diesel	mg/kg	6550	95UCL	1.9E+03	--	3E+00	--
24506 MARBELLA AVE	TPH as Gasoline	mg/kg	393	95UCL	8.6E+02	--	5E-01	--
24506 MARBELLA AVE	TPH as Motor Oil	mg/kg	10441	95UCL	1.6E+05	--	7E-02	--
24506 MARBELLA AVE	Xylenes, Total	µg/kg	5700	95UCL	4.7E+05	--	1E-02	--
24507 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.008	Max	1.9E+05	2.7E+03	4E-08	3E-11
24507 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00887	95UCL	1.1E+04	--	8E-07	--
24507 MARBELLA AVE	Benzene	µg/kg	0.206	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24507 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.28	Max	3.2E+03	6.7E+00	9E-05	4E-07
24507 MARBELLA AVE	Cobalt	mg/kg	13.73	95UCL	2.0E+02	1.1E+02	7E-02	1E-06
24507 MARBELLA AVE	Naphthalene	mg/kg	0.0099	95UCL	1.4E+02	3.9E+01	7E-05	3E-09
24507 MARBELLA AVE	Pyrene	mg/kg	0.0769	95UCL	6.7E+04	--	1E-06	--

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Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24507 MARBELLA AVE	Tetrachloroethene	µg/kg	2.282	95UCL	8.6E+04	1.0E+04	3E-05	2E-09
24507 MARBELLA AVE	Toluene	µg/kg	0.204	95UCL	1.6E+07	--	1E-08	--
24507 MARBELLA AVE	TPH as Diesel	mg/kg	71.39	95UCL	1.9E+03	--	4E-02	--
24507 MARBELLA AVE	TPH as Gasoline	mg/kg	0.0781	95UCL	8.6E+02	--	9E-05	--
24507 MARBELLA AVE	TPH as Motor Oil	mg/kg	237.3	95UCL	1.6E+05	--	2E-03	--
24507 MARBELLA AVE	Trichloroethene	µg/kg	0.22	Max	5.5E+03	1.9E+04	4E-05	1E-10
24507 MARBELLA AVE	Vanadium	mg/kg	48.4	95UCL	3.3E+03	--	2E-02	--
24508 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1290	95UCL	7.5E+04	--	2E-02	--
24508 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	2200	Max	7.7E+04	--	3E-02	--
24508 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	200	Max	8.7E+06	2.8E+04	2E-05	7E-08
24508 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.93	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24508 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	7.842	95UCL	1.1E+04	--	7E-04	--
24508 NEPTUNE AVE	Benzene	µg/kg	443	95UCL	6.9E+04	2.2E+03	6E-03	2E-06
24508 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.32	Max	6.3E+04	6.4E+03	5E-06	5E-10
24508 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.35	Max	3.2E+03	6.7E+00	1E-04	5E-07
24508 NEPTUNE AVE	Ethylbenzene	µg/kg	1134	95UCL	4.5E+06	5.1E+04	3E-04	2E-07
24508 NEPTUNE AVE	Naphthalene	mg/kg	3.131	95UCL	1.4E+02	3.9E+01	2E-02	8E-07
24508 NEPTUNE AVE	Pyrene	mg/kg	0.408	95UCL	6.7E+04	--	6E-06	--
24508 NEPTUNE AVE	Toluene	µg/kg	0.208	95UCL	1.6E+07	--	1E-08	--
24508 NEPTUNE AVE	TPH as Diesel	mg/kg	3550	95UCL	1.9E+03	--	2E+00	--
24508 NEPTUNE AVE	TPH as Gasoline	mg/kg	413.4	95UCL	8.6E+02	--	5E-01	--
24508 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4089	95UCL	1.6E+05	--	3E-02	--
24508 NEPTUNE AVE	Xylenes, Total	µg/kg	544.2	95UCL	4.7E+05	--	1E-03	--
24508 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00262	95UCL	1.9E+05	2.7E+03	1E-08	1E-11
24508 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00303	95UCL	1.1E+04	--	3E-07	--
24508 PANAMA AVE	Benzene	µg/kg	1.952	95UCL	6.9E+04	2.2E+03	3E-05	9E-09
24508 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.19	Max	6.3E+04	6.4E+03	3E-06	3E-10
24508 PANAMA AVE	Bromomethane	µg/kg	1.7	Max	7.8E+03	--	2E-04	--
24508 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.307	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24508 PANAMA AVE	Ethylbenzene	µg/kg	1.3	Max	4.5E+06	5.1E+04	3E-07	3E-10
24508 PANAMA AVE	Naphthalene	mg/kg	0.00216	95UCL	1.4E+02	3.9E+01	2E-05	6E-10
24508 PANAMA AVE	Pyrene	mg/kg	0.00373	95UCL	6.7E+04	--	6E-08	--
24508 PANAMA AVE	Toluene	µg/kg	0.41	95UCL	1.6E+07	--	3E-08	--
24508 PANAMA AVE	TPH as Diesel	mg/kg	88	Max	1.9E+03	--	5E-02	--
24508 PANAMA AVE	TPH as Gasoline	mg/kg	0.075	Max	8.6E+02	--	9E-05	--
24508 PANAMA AVE	TPH as Motor Oil	mg/kg	280	Max	1.6E+05	--	2E-03	--
24508 PANAMA AVE	Trichloroethene	µg/kg	1.4	Max	5.5E+03	1.9E+04	3E-04	8E-10
24508 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	13203	95UCL	7.5E+04	--	2E-01	--
24508 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	2137	95UCL	7.7E+04	--	3E-02	--
24508 RAVENNA AVE	1-Methylnaphthalene	mg/kg	9.716	95UCL	1.9E+05	2.7E+03	5E-05	4E-08
24508 RAVENNA AVE	2-Methylnaphthalene	mg/kg	14.68	95UCL	1.1E+04	--	1E-03	--
24508 RAVENNA AVE	Benzene	µg/kg	3232	95UCL	6.9E+04	2.2E+03	5E-02	2E-05
24508 RAVENNA AVE	Cobalt	mg/kg	9.427	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24508 RAVENNA AVE	Ethylbenzene	µg/kg	4268	95UCL	4.5E+06	5.1E+04	9E-04	8E-07
24508 RAVENNA AVE	Naphthalene	mg/kg	6.496	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24508 RAVENNA AVE	Pyrene	mg/kg	0.635	95UCL	6.7E+04	--	1E-05	--
24508 RAVENNA AVE	Toluene	µg/kg	21.72	95UCL	1.6E+07	--	1E-06	--
24508 RAVENNA AVE	TPH as Diesel	mg/kg	7154	95UCL	1.9E+03	--	4E+00	--
24508 RAVENNA AVE	TPH as Gasoline	mg/kg	882.9	95UCL	8.6E+02	--	1E+00	--
24508 RAVENNA AVE	TPH as Motor Oil	mg/kg	6347	95UCL	1.6E+05	--	4E-02	--
24508 RAVENNA AVE	Xylenes, Total	µg/kg	9175	95UCL	4.7E+05	--	2E-02	--
24509 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.206	95UCL	7.5E+04	--	3E-06	--
24509 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.089	Max	7.7E+04	--	1E-06	--
24509 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.636	95UCL	1.9E+05	2.7E+03	3E-06	2E-09
24509 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.958	95UCL	1.1E+04	--	9E-05	--
24509 NEPTUNE AVE	Benzene	µg/kg	0.194	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24509 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.19	Max	6.3E+04	6.4E+03	3E-06	3E-10
24509 NEPTUNE AVE	Bromodichloromethane	µg/kg	0.24	Max	4.9E+05	5.3E+03	5E-07	5E-10
24509 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.37	Max	3.2E+03	6.7E+00	1E-04	6E-07
24509 NEPTUNE AVE	Ethylbenzene	µg/kg	19	Max	4.5E+06	5.1E+04	4E-06	4E-09
24509 NEPTUNE AVE	Naphthalene	mg/kg	0.3	95UCL	1.4E+02	3.9E+01	2E-03	8E-08

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24509 NEPTUNE AVE	Pyrene	mg/kg	0.442	95UCL	6.7E+04	--	7E-06	--
24509 NEPTUNE AVE	Toluene	µg/kg	0.257	95UCL	1.6E+07	--	2E-08	--
24509 NEPTUNE AVE	TPH as Diesel	mg/kg	1985	95UCL	1.9E+03	--	1E+00	--
24509 NEPTUNE AVE	TPH as Gasoline	mg/kg	35.17	95UCL	8.6E+02	--	4E-02	--
24509 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3015	95UCL	1.6E+05	--	2E-02	--
24509 NEPTUNE AVE	Xylenes, Total	µg/kg	11.71	95UCL	4.7E+05	--	3E-05	--
24509 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2301	95UCL	7.5E+04	--	3E-02	--
24509 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	331	95UCL	7.7E+04	--	4E-03	--
24509 PANAMA AVE	1-Methylnaphthalene	mg/kg	2.11	95UCL	1.9E+05	2.7E+03	1E-05	8E-09
24509 PANAMA AVE	2-Methylnaphthalene	mg/kg	4.744	95UCL	1.1E+04	--	4E-04	--
24509 PANAMA AVE	Benzene	µg/kg	462.9	95UCL	6.9E+04	2.2E+03	7E-03	2E-06
24509 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.82	Max	6.3E+04	6.4E+03	1E-05	1E-09
24509 PANAMA AVE	Bromomethane	µg/kg	2.5	Max	7.8E+03	--	3E-04	--
24509 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.52	Max	3.2E+03	6.7E+00	2E-04	8E-07
24509 PANAMA AVE	Ethylbenzene	µg/kg	1252	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24509 PANAMA AVE	Naphthalene	mg/kg	2.835	95UCL	1.4E+02	3.9E+01	2E-02	7E-07
24509 PANAMA AVE	Pyrene	mg/kg	0.436	95UCL	6.7E+04	--	7E-06	--
24509 PANAMA AVE	Toluene	µg/kg	7.2	95UCL	1.6E+07	--	4E-07	--
24509 PANAMA AVE	TPH as Diesel	mg/kg	4083	95UCL	1.9E+03	--	2E+00	--
24509 PANAMA AVE	TPH as Gasoline	mg/kg	425.7	95UCL	8.6E+02	--	5E-01	--
24509 PANAMA AVE	TPH as Motor Oil	mg/kg	4919	95UCL	1.6E+05	--	3E-02	--
24509 PANAMA AVE	Xylenes, Total	µg/kg	2394	95UCL	4.7E+05	--	5E-03	--
24509 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	7040	95UCL	7.5E+04	--	9E-02	--
24509 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1094	95UCL	7.7E+04	--	1E-02	--
24509 RAVENNA AVE	1-Methylnaphthalene	mg/kg	4.94	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24509 RAVENNA AVE	2-Methylnaphthalene	mg/kg	12.75	95UCL	1.1E+04	--	1E-03	--
24509 RAVENNA AVE	Benzene	µg/kg	2747	95UCL	6.9E+04	2.2E+03	4E-02	1E-05
24509 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.66	Max	6.3E+04	6.4E+03	1E-05	1E-09
24509 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.31	Max	3.2E+03	6.7E+00	1E-04	5E-07
24509 RAVENNA AVE	Ethylbenzene	µg/kg	4953	95UCL	4.5E+06	5.1E+04	1E-03	1E-06
24509 RAVENNA AVE	Naphthalene	mg/kg	5.155	95UCL	1.4E+02	3.9E+01	4E-02	1E-06
24509 RAVENNA AVE	Pyrene	mg/kg	0.95	95UCL	6.7E+04	--	1E-05	--
24509 RAVENNA AVE	Toluene	µg/kg	0.175	95UCL	1.6E+07	--	1E-08	--
24509 RAVENNA AVE	TPH as Diesel	mg/kg	6285	95UCL	1.9E+03	--	3E+00	--
24509 RAVENNA AVE	TPH as Gasoline	mg/kg	643.4	95UCL	8.6E+02	--	8E-01	--
24509 RAVENNA AVE	TPH as Motor Oil	mg/kg	8010	95UCL	1.6E+05	--	5E-02	--
24509 RAVENNA AVE	Xylenes, Total	µg/kg	7045	95UCL	4.7E+05	--	2E-02	--
24512 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	3133	95UCL	7.5E+04	--	4E-02	--
24512 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	777.4	95UCL	7.7E+04	--	1E-02	--
24512 MARBELLA AVE	1-Methylnaphthalene	mg/kg	7.089	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24512 MARBELLA AVE	2-Methylnaphthalene	mg/kg	10.91	95UCL	1.1E+04	--	1E-03	--
24512 MARBELLA AVE	Benzene	µg/kg	408.5	95UCL	6.9E+04	2.2E+03	6E-03	2E-06
24512 MARBELLA AVE	Bromomethane	µg/kg	2.8	Max	7.8E+03	--	4E-04	--
24512 MARBELLA AVE	Cobalt	mg/kg	10.79	95UCL	2.0E+02	1.1E+02	5E-02	1E-06
24512 MARBELLA AVE	Ethylbenzene	µg/kg	1580	95UCL	4.5E+06	5.1E+04	4E-04	3E-07
24512 MARBELLA AVE	Naphthalene	mg/kg	4.874	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24512 MARBELLA AVE	Pyrene	mg/kg	0.924	95UCL	6.7E+04	--	1E-05	--
24512 MARBELLA AVE	Toluene	µg/kg	28.2	95UCL	1.6E+07	--	2E-06	--
24512 MARBELLA AVE	TPH as Diesel	mg/kg	8948	95UCL	1.9E+03	--	5E+00	--
24512 MARBELLA AVE	TPH as Gasoline	mg/kg	740.5	95UCL	8.6E+02	--	9E-01	--
24512 MARBELLA AVE	TPH as Motor Oil	mg/kg	24739	95UCL	1.6E+05	--	2E-01	--
24512 MARBELLA AVE	Vanadium	mg/kg	41.33	95UCL	3.3E+03	--	1E-02	--
24512 MARBELLA AVE	Xylenes, Total	µg/kg	1503	95UCL	4.7E+05	--	3E-03	--
24512 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1328	95UCL	7.5E+04	--	2E-02	--
24512 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	610	Max	7.7E+04	--	8E-03	--
24512 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	4.563	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24512 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.012	95UCL	1.1E+04	--	4E-04	--
24512 NEPTUNE AVE	Benzene	µg/kg	243.8	95UCL	6.9E+04	2.2E+03	4E-03	1E-06
24512 NEPTUNE AVE	Ethylbenzene	µg/kg	1264	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24512 NEPTUNE AVE	Methylene Chloride	µg/kg	1.4	Max	1.2E+06	5.9E+04	1E-06	2E-10
24512 NEPTUNE AVE	Naphthalene	mg/kg	3.455	95UCL	1.4E+02	3.9E+01	2E-02	9E-07

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24512 NEPTUNE AVE	Pyrene	mg/kg	0.634	95UCL	6.7E+04	--	1E-05	--
24512 NEPTUNE AVE	TPH as Diesel	mg/kg	3969	95UCL	1.9E+03	--	2E+00	--
24512 NEPTUNE AVE	TPH as Gasoline	mg/kg	188.1	95UCL	8.6E+02	--	2E-01	--
24512 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5086	95UCL	1.6E+05	--	3E-02	--
24512 NEPTUNE AVE	Xylenes, Total	µg/kg	287	95UCL	4.7E+05	--	6E-04	--
24512 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.11	Max	7.5E+04	--	2E-06	--
24512 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00187	95UCL	1.9E+05	2.7E+03	1E-08	7E-12
24512 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00311	95UCL	1.1E+04	--	3E-07	--
24512 PANAMA AVE	Benzene	µg/kg	2.497	95UCL	6.9E+04	2.2E+03	4E-05	1E-08
24512 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.33	Max	3.2E+03	6.7E+00	1E-04	5E-07
24512 PANAMA AVE	Ethylbenzene	µg/kg	0.665	95UCL	4.5E+06	5.1E+04	2E-07	1E-10
24512 PANAMA AVE	Naphthalene	mg/kg	0.0582	95UCL	1.4E+02	3.9E+01	4E-04	2E-08
24512 PANAMA AVE	Pyrene	mg/kg	0.0133	95UCL	6.7E+04	--	2E-07	--
24512 PANAMA AVE	Toluene	µg/kg	0.371	95UCL	1.6E+07	--	2E-08	--
24512 PANAMA AVE	TPH as Diesel	mg/kg	45	Max	1.9E+03	--	2E-02	--
24512 PANAMA AVE	TPH as Gasoline	mg/kg	0.075	Max	8.6E+02	--	9E-05	--
24512 PANAMA AVE	TPH as Motor Oil	mg/kg	140	Max	1.6E+05	--	9E-04	--
24512 PANAMA AVE	Trichloroethene	µg/kg	0.3	Max	5.5E+03	1.9E+04	6E-05	2E-10
24512 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	4510	95UCL	7.5E+04	--	6E-02	--
24512 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	419.2	95UCL	7.7E+04	--	5E-03	--
24512 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.239	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24512 RAVENNA AVE	2-Methylnaphthalene	mg/kg	5.297	95UCL	1.1E+04	--	5E-04	--
24512 RAVENNA AVE	Benzene	µg/kg	581.7	95UCL	6.9E+04	2.2E+03	8E-03	3E-06
24512 RAVENNA AVE	Bromomethane	µg/kg	500	Max	7.8E+03	--	6E-02	--
24512 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	3.2E+03	6.7E+00	1E-04	5E-07
24512 RAVENNA AVE	Ethylbenzene	µg/kg	1354	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24512 RAVENNA AVE	Naphthalene	mg/kg	2.471	95UCL	1.4E+02	3.9E+01	2E-02	6E-07
24512 RAVENNA AVE	Pyrene	mg/kg	0.393	95UCL	6.7E+04	--	6E-06	--
24512 RAVENNA AVE	Toluene	µg/kg	6.779	95UCL	1.6E+07	--	4E-07	--
24512 RAVENNA AVE	TPH as Diesel	mg/kg	3194	95UCL	1.9E+03	--	2E+00	--
24512 RAVENNA AVE	TPH as Gasoline	mg/kg	594.5	95UCL	8.6E+02	--	7E-01	--
24512 RAVENNA AVE	TPH as Motor Oil	mg/kg	3880	95UCL	1.6E+05	--	2E-02	--
24512 RAVENNA AVE	Xylenes, Total	µg/kg	1794	95UCL	4.7E+05	--	4E-03	--
24513 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1175	95UCL	7.5E+04	--	2E-02	--
24513 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	180.3	95UCL	7.7E+04	--	2E-03	--
24513 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.871	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24513 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	7.457	95UCL	1.1E+04	--	7E-04	--
24513 NEPTUNE AVE	Benzene	µg/kg	187.2	95UCL	6.9E+04	2.2E+03	3E-03	8E-07
24513 NEPTUNE AVE	Bromomethane	µg/kg	420	Max	7.8E+03	--	5E-02	--
24513 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.25	Max	3.2E+03	6.7E+00	8E-05	4E-07
24513 NEPTUNE AVE	Ethylbenzene	µg/kg	885.2	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24513 NEPTUNE AVE	Naphthalene	mg/kg	3.114	95UCL	1.4E+02	3.9E+01	2E-02	8E-07
24513 NEPTUNE AVE	Pyrene	mg/kg	0.325	95UCL	6.7E+04	--	5E-06	--
24513 NEPTUNE AVE	Toluene	µg/kg	0.241	95UCL	1.6E+07	--	2E-08	--
24513 NEPTUNE AVE	TPH as Diesel	mg/kg	3254	95UCL	1.9E+03	--	2E+00	--
24513 NEPTUNE AVE	TPH as Gasoline	mg/kg	348.6	95UCL	8.6E+02	--	4E-01	--
24513 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3508	95UCL	1.6E+05	--	2E-02	--
24513 NEPTUNE AVE	Xylenes, Total	µg/kg	378.4	95UCL	4.7E+05	--	8E-04	--
24513 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	5069	95UCL	7.5E+04	--	7E-02	--
24513 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	725.1	95UCL	7.7E+04	--	9E-03	--
24513 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	440	Max	8.7E+06	2.8E+04	5E-05	2E-07
24513 PANAMA AVE	1-Methylnaphthalene	mg/kg	6.542	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24513 PANAMA AVE	2-Methylnaphthalene	mg/kg	10.42	95UCL	1.1E+04	--	9E-04	--
24513 PANAMA AVE	Benzene	µg/kg	610.5	95UCL	6.9E+04	2.2E+03	9E-03	3E-06
24513 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.56	Max	6.3E+04	6.4E+03	9E-06	9E-10
24513 PANAMA AVE	Bromomethane	µg/kg	1.8	Max	7.8E+03	--	2E-04	--
24513 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.262	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24513 PANAMA AVE	Ethylbenzene	µg/kg	1877	95UCL	4.5E+06	5.1E+04	4E-04	4E-07
24513 PANAMA AVE	Naphthalene	mg/kg	4.477	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24513 PANAMA AVE	Pyrene	mg/kg	0.362	95UCL	6.7E+04	--	5E-06	--
24513 PANAMA AVE	Toluene	µg/kg	7.453	95UCL	1.6E+07	--	5E-07	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24513 PANAMA AVE	TPH as Diesel	mg/kg	5451	95UCL	1.9E+03	--	3E+00	--
24513 PANAMA AVE	TPH as Gasoline	mg/kg	638.1	95UCL	8.6E+02	--	7E-01	--
24513 PANAMA AVE	TPH as Motor Oil	mg/kg	6025	95UCL	1.6E+05	--	4E-02	--
24513 PANAMA AVE	Xylenes, Total	µg/kg	1536	95UCL	4.7E+05	--	3E-03	--
24513 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1175	95UCL	7.5E+04	--	2E-02	--
24513 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	272.7	95UCL	7.7E+04	--	4E-03	--
24513 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.18	Max	8.7E+06	2.8E+04	2E-08	6E-11
24513 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.975	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24513 RAVENNA AVE	2-Methylnaphthalene	mg/kg	10.09	95UCL	1.1E+04	--	9E-04	--
24513 RAVENNA AVE	Benzene	µg/kg	89.43	95UCL	6.9E+04	2.2E+03	1E-03	4E-07
24513 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.16	Max	6.3E+04	6.4E+03	3E-06	3E-10
24513 RAVENNA AVE	Bromodichloromethane	µg/kg	0.17	Max	4.9E+05	5.3E+03	4E-07	3E-10
24513 RAVENNA AVE	Ethylbenzene	µg/kg	596	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24513 RAVENNA AVE	Naphthalene	mg/kg	3.4	95UCL	1.4E+02	3.9E+01	2E-02	9E-07
24513 RAVENNA AVE	Pyrene	mg/kg	0.713	95UCL	6.7E+04	--	1E-05	--
24513 RAVENNA AVE	Toluene	µg/kg	0.236	95UCL	1.6E+07	--	1E-08	--
24513 RAVENNA AVE	TPH as Diesel	mg/kg	6633	95UCL	1.9E+03	--	4E+00	--
24513 RAVENNA AVE	TPH as Gasoline	mg/kg	214.6	95UCL	8.6E+02	--	3E-01	--
24513 RAVENNA AVE	TPH as Motor Oil	mg/kg	6905	95UCL	1.6E+05	--	4E-02	--
24513 RAVENNA AVE	Xylenes, Total	µg/kg	384.3	95UCL	4.7E+05	--	8E-04	--
24516 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	9041	95UCL	7.5E+04	--	1E-01	--
24516 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1472	95UCL	7.7E+04	--	2E-02	--
24516 MARBELLA AVE	1-Methylnaphthalene	mg/kg	5.388	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24516 MARBELLA AVE	2-Methylnaphthalene	mg/kg	15.88	95UCL	1.1E+04	--	1E-03	--
24516 MARBELLA AVE	Benzene	µg/kg	2578	95UCL	6.9E+04	2.2E+03	4E-02	1E-05
24516 MARBELLA AVE	Bromomethane	µg/kg	2.3	Max	7.8E+03	--	3E-04	--
24516 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.28	Max	3.2E+03	6.7E+00	9E-05	4E-07
24516 MARBELLA AVE	Ethylbenzene	µg/kg	2354	95UCL	4.5E+06	5.1E+04	5E-04	5E-07
24516 MARBELLA AVE	Naphthalene	mg/kg	7.062	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24516 MARBELLA AVE	Pyrene	mg/kg	0.352	95UCL	6.7E+04	--	5E-06	--
24516 MARBELLA AVE	Toluene	µg/kg	414.5	95UCL	1.6E+07	--	3E-05	--
24516 MARBELLA AVE	TPH as Diesel	mg/kg	6056	95UCL	1.9E+03	--	3E+00	--
24516 MARBELLA AVE	TPH as Gasoline	mg/kg	1151	95UCL	8.6E+02	--	1E+00	--
24516 MARBELLA AVE	TPH as Motor Oil	mg/kg	5612	95UCL	1.6E+05	--	4E-02	--
24516 MARBELLA AVE	Xylenes, Total	µg/kg	14329	95UCL	4.7E+05	--	3E-02	--
24517 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.25	Max	7.5E+04	--	3E-06	--
24517 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.11	Max	1.9E+05	2.7E+03	6E-07	4E-10
24517 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00588	95UCL	1.1E+04	--	5E-07	--
24517 MARBELLA AVE	Benzene	µg/kg	0.17	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24517 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.39	Max	3.2E+03	6.7E+00	1E-04	6E-07
24517 MARBELLA AVE	Cobalt	mg/kg	13.17	95UCL	2.0E+02	1.1E+02	7E-02	1E-06
24517 MARBELLA AVE	Naphthalene	mg/kg	0.0328	95UCL	1.4E+02	3.9E+01	2E-04	8E-09
24517 MARBELLA AVE	Pyrene	mg/kg	0.583	95UCL	6.7E+04	--	9E-06	--
24517 MARBELLA AVE	Toluene	µg/kg	0.56	Max	1.6E+07	--	3E-08	--
24517 MARBELLA AVE	TPH as Diesel	mg/kg	352.6	95UCL	1.9E+03	--	2E-01	--
24517 MARBELLA AVE	TPH as Gasoline	mg/kg	0.23	Max	8.6E+02	--	3E-04	--
24517 MARBELLA AVE	TPH as Motor Oil	mg/kg	764.7	95UCL	1.6E+05	--	5E-03	--
24517 MARBELLA AVE	Vanadium	mg/kg	47.35	95UCL	3.3E+03	--	1E-02	--
24518 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	408.7	95UCL	7.5E+04	--	5E-03	--
24518 NEPTUNE AVE	1,2-Dichloropropane	µg/kg	0.45	Max	1.2E+04	8.5E+03	4E-05	5E-10
24518 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	250	Max	7.7E+04	--	3E-03	--
24518 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	3.286	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24518 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	1.1	Max	6.3E+03	2.8E+02	2E-04	4E-08
24518 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	8.479	95UCL	1.1E+04	--	8E-04	--
24518 NEPTUNE AVE	Benzene	µg/kg	53.19	95UCL	6.9E+04	2.2E+03	8E-04	2E-07
24518 NEPTUNE AVE	Bromomethane	µg/kg	95.46	95UCL	7.8E+03	--	1E-02	--
24518 NEPTUNE AVE	Cobalt	mg/kg	9.266	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24518 NEPTUNE AVE	Ethylbenzene	µg/kg	497.6	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24518 NEPTUNE AVE	Naphthalene	mg/kg	2.983	95UCL	1.4E+02	3.9E+01	2E-02	8E-07
24518 NEPTUNE AVE	Pyrene	mg/kg	0.593	95UCL	6.7E+04	--	9E-06	--
24518 NEPTUNE AVE	Toluene	µg/kg	7.764	95UCL	1.6E+07	--	5E-07	--

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24518 NEPTUNE AVE	TPH as Diesel	mg/kg	3871	95UCL	1.9E+03	--	2E+00	--
24518 NEPTUNE AVE	TPH as Gasoline	mg/kg	397.5	95UCL	8.6E+02	--	5E-01	--
24518 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4538	95UCL	1.6E+05	--	3E-02	--
24518 NEPTUNE AVE	Xylenes, Total	µg/kg	187.8	95UCL	4.7E+05	--	4E-04	--
24518 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.18	Max	7.5E+04	--	2E-06	--
24518 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.024	Max	1.9E+05	2.7E+03	1E-07	9E-11
24518 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0102	95UCL	1.1E+04	--	9E-07	--
24518 PANAMA AVE	Benzene	µg/kg	1.935	95UCL	6.9E+04	2.2E+03	3E-05	9E-09
24518 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.61	Max	6.3E+04	6.4E+03	1E-05	1E-09
24518 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.296	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24518 PANAMA AVE	Ethylbenzene	µg/kg	0.715	95UCL	4.5E+06	5.1E+04	2E-07	1E-10
24518 PANAMA AVE	Naphthalene	mg/kg	0.00313	95UCL	1.4E+02	3.9E+01	2E-05	8E-10
24518 PANAMA AVE	Pyrene	mg/kg	0.0385	95UCL	6.7E+04	--	6E-07	--
24518 PANAMA AVE	Toluene	µg/kg	0.377	95UCL	1.6E+07	--	2E-08	--
24518 PANAMA AVE	TPH as Diesel	mg/kg	43.67	95UCL	1.9E+03	--	2E-02	--
24518 PANAMA AVE	TPH as Gasoline	mg/kg	0.0682	95UCL	8.6E+02	--	8E-05	--
24518 PANAMA AVE	TPH as Motor Oil	mg/kg	153.6	95UCL	1.6E+05	--	1E-03	--
24518 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2249	95UCL	7.5E+04	--	3E-02	--
24518 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	100.3	95UCL	7.7E+04	--	1E-03	--
24518 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.203	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24518 RAVENNA AVE	2-Methylnaphthalene	mg/kg	7.292	95UCL	1.1E+04	--	7E-04	--
24518 RAVENNA AVE	Benzene	µg/kg	173.3	95UCL	6.9E+04	2.2E+03	3E-03	8E-07
24518 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.24	Max	3.2E+03	6.7E+00	8E-05	4E-07
24518 RAVENNA AVE	Ethylbenzene	µg/kg	1320	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24518 RAVENNA AVE	Naphthalene	mg/kg	3.994	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24518 RAVENNA AVE	Pyrene	mg/kg	0.474	95UCL	6.7E+04	--	7E-06	--
24518 RAVENNA AVE	Tetrachloroethene	µg/kg	0.44	Max	8.6E+04	1.0E+04	5E-06	4E-10
24518 RAVENNA AVE	Toluene	µg/kg	0.324	95UCL	1.6E+07	--	2E-08	--
24518 RAVENNA AVE	TPH as Diesel	mg/kg	4092	95UCL	1.9E+03	--	2E+00	--
24518 RAVENNA AVE	TPH as Gasoline	mg/kg	539.2	95UCL	8.6E+02	--	6E-01	--
24518 RAVENNA AVE	TPH as Motor Oil	mg/kg	4300	95UCL	1.6E+05	--	3E-02	--
24518 RAVENNA AVE	Xylenes, Total	µg/kg	399.5	95UCL	4.7E+05	--	9E-04	--
24519 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	121.7	95UCL	7.5E+04	--	2E-03	--
24519 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1.952	95UCL	7.7E+04	--	3E-05	--
24519 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.25	Max	8.7E+06	2.8E+04	3E-08	9E-11
24519 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.843	95UCL	1.9E+05	2.7E+03	1E-05	7E-09
24519 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.468	95UCL	1.1E+04	--	4E-04	--
24519 NEPTUNE AVE	Benzene	µg/kg	32.22	95UCL	6.9E+04	2.2E+03	5E-04	1E-07
24519 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.23	Max	6.3E+04	6.4E+03	4E-06	4E-10
24519 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.44	Max	3.2E+03	6.7E+00	1E-04	7E-07
24519 NEPTUNE AVE	Ethylbenzene	µg/kg	795.3	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24519 NEPTUNE AVE	Naphthalene	mg/kg	1.898	95UCL	1.4E+02	3.9E+01	1E-02	5E-07
24519 NEPTUNE AVE	Pyrene	mg/kg	0.359	95UCL	6.7E+04	--	5E-06	--
24519 NEPTUNE AVE	Toluene	µg/kg	5.472	95UCL	1.6E+07	--	3E-07	--
24519 NEPTUNE AVE	TPH as Diesel	mg/kg	2290	95UCL	1.9E+03	--	1E+00	--
24519 NEPTUNE AVE	TPH as Gasoline	mg/kg	119.4	95UCL	8.6E+02	--	1E-01	--
24519 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2535	95UCL	1.6E+05	--	2E-02	--
24519 NEPTUNE AVE	Xylenes, Total	µg/kg	12.8	95UCL	4.7E+05	--	3E-05	--
24519 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1287	95UCL	7.5E+04	--	2E-02	--
24519 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	150	Max	7.7E+04	--	2E-03	--
24519 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.791	95UCL	1.9E+05	2.7E+03	9E-06	7E-09
24519 PANAMA AVE	2-Methylnaphthalene	mg/kg	4.478	95UCL	1.1E+04	--	4E-04	--
24519 PANAMA AVE	Benzene	µg/kg	199.3	95UCL	6.9E+04	2.2E+03	3E-03	9E-07
24519 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.262	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24519 PANAMA AVE	Ethylbenzene	µg/kg	886.5	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24519 PANAMA AVE	Naphthalene	mg/kg	2.316	95UCL	1.4E+02	3.9E+01	2E-02	6E-07
24519 PANAMA AVE	Pyrene	mg/kg	0.348	95UCL	6.7E+04	--	5E-06	--
24519 PANAMA AVE	Toluene	µg/kg	0.276	95UCL	1.6E+07	--	2E-08	--
24519 PANAMA AVE	TPH as Diesel	mg/kg	3668	95UCL	1.9E+03	--	2E+00	--
24519 PANAMA AVE	TPH as Gasoline	mg/kg	214.3	95UCL	8.6E+02	--	3E-01	--
24519 PANAMA AVE	TPH as Motor Oil	mg/kg	3453	95UCL	1.6E+05	--	2E-02	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24519 PANAMA AVE	Xylenes, Total	µg/kg	165.2	95UCL	4.7E+05	--	4E-04	--
24522 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1317	95UCL	7.5E+04	--	2E-02	--
24522 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	38.9	95UCL	7.7E+04	--	5E-04	--
24522 MARBELLA AVE	1-Methylnaphthalene	mg/kg	6.352	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24522 MARBELLA AVE	2-Methylnaphthalene	mg/kg	8.889	95UCL	1.1E+04	--	8E-04	--
24522 MARBELLA AVE	Benzene	µg/kg	656.8	95UCL	6.9E+04	2.2E+03	1E-02	3E-06
24522 MARBELLA AVE	Bromodichloromethane	µg/kg	2.4	Max	4.9E+05	5.3E+03	5E-06	5E-09
24522 MARBELLA AVE	Cobalt	mg/kg	12.17	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24522 MARBELLA AVE	Ethylbenzene	µg/kg	3667	95UCL	4.5E+06	5.1E+04	8E-04	7E-07
24522 MARBELLA AVE	Naphthalene	mg/kg	4.166	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24522 MARBELLA AVE	Pyrene	mg/kg	0.0829	95UCL	6.7E+04	--	1E-06	--
24522 MARBELLA AVE	Toluene	µg/kg	16.67	95UCL	1.6E+07	--	1E-06	--
24522 MARBELLA AVE	TPH as Diesel	mg/kg	13753	95UCL	1.9E+03	--	7E+00	--
24522 MARBELLA AVE	TPH as Gasoline	mg/kg	472.9	95UCL	8.6E+02	--	6E-01	--
24522 MARBELLA AVE	TPH as Motor Oil	mg/kg	13484	95UCL	1.6E+05	--	8E-02	--
24522 MARBELLA AVE	Trichloroethene	µg/kg	0.69	Max	5.5E+03	1.9E+04	1E-04	4E-10
24522 MARBELLA AVE	Vanadium	mg/kg	43.05	95UCL	3.3E+03	--	1E-02	--
24522 MARBELLA AVE	Xylenes, Total	µg/kg	270	95UCL	4.7E+05	--	6E-04	--
24522 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	29.51	95UCL	7.5E+04	--	4E-04	--
24522 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	26	Max	7.7E+04	--	3E-04	--
24522 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	2.985	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24522 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	4.717	95UCL	1.1E+04	--	4E-04	--
24522 NEPTUNE AVE	Benzene	µg/kg	62.3	95UCL	6.9E+04	2.2E+03	9E-04	3E-07
24522 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.35	Max	3.2E+03	6.7E+00	1E-04	5E-07
24522 NEPTUNE AVE	Cobalt	mg/kg	9.639	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24522 NEPTUNE AVE	Ethylbenzene	µg/kg	596.9	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24522 NEPTUNE AVE	Methylene Chloride	µg/kg	4.9	Max	1.2E+06	5.9E+04	4E-06	8E-10
24522 NEPTUNE AVE	Naphthalene	mg/kg	2.169	95UCL	1.4E+02	3.9E+01	2E-02	6E-07
24522 NEPTUNE AVE	Pyrene	mg/kg	0.455	95UCL	6.7E+04	--	7E-06	--
24522 NEPTUNE AVE	Toluene	µg/kg	0.239	95UCL	1.6E+07	--	2E-08	--
24522 NEPTUNE AVE	TPH as Diesel	mg/kg	2313	95UCL	1.9E+03	--	1E+00	--
24522 NEPTUNE AVE	TPH as Gasoline	mg/kg	129.9	95UCL	8.6E+02	--	2E-01	--
24522 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3451	95UCL	1.6E+05	--	2E-02	--
24522 NEPTUNE AVE	Xylenes, Total	µg/kg	14.33	95UCL	4.7E+05	--	3E-05	--
24522 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.86	Max	7.5E+04	--	1E-05	--
24522 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.22	Max	7.7E+04	--	3E-06	--
24522 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00251	95UCL	1.9E+05	2.7E+03	1E-08	9E-12
24522 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00301	95UCL	1.1E+04	--	3E-07	--
24522 PANAMA AVE	Benzene	µg/kg	3.331	95UCL	6.9E+04	2.2E+03	5E-05	2E-08
24522 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.292	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24522 PANAMA AVE	Ethylbenzene	µg/kg	0.426	95UCL	4.5E+06	5.1E+04	9E-08	8E-11
24522 PANAMA AVE	Naphthalene	mg/kg	0.0021	95UCL	1.4E+02	3.9E+01	2E-05	5E-10
24522 PANAMA AVE	Pyrene	mg/kg	0.00651	95UCL	6.7E+04	--	1E-07	--
24522 PANAMA AVE	Toluene	µg/kg	1.671	95UCL	1.6E+07	--	1E-07	--
24522 PANAMA AVE	TPH as Diesel	mg/kg	160	Max	1.9E+03	--	8E-02	--
24522 PANAMA AVE	TPH as Gasoline	mg/kg	0.11	Max	8.6E+02	--	1E-04	--
24522 PANAMA AVE	TPH as Motor Oil	mg/kg	157.7	95UCL	1.6E+05	--	1E-03	--
24522 PANAMA AVE	Xylenes, Total	µg/kg	6	Max	4.7E+05	--	1E-05	--
24522 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1084	95UCL	7.5E+04	--	1E-02	--
24522 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1300	Max	7.7E+04	--	2E-02	--
24522 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.445	95UCL	1.9E+05	2.7E+03	1E-05	9E-09
24522 RAVENNA AVE	2-Methylnaphthalene	mg/kg	5.669	95UCL	1.1E+04	--	5E-04	--
24522 RAVENNA AVE	Benzene	µg/kg	219.5	95UCL	6.9E+04	2.2E+03	3E-03	1E-06
24522 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	3.2E+03	6.7E+00	1E-04	5E-07
24522 RAVENNA AVE	Ethylbenzene	µg/kg	909.5	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24522 RAVENNA AVE	Naphthalene	mg/kg	2.648	95UCL	1.4E+02	3.9E+01	2E-02	7E-07
24522 RAVENNA AVE	Pyrene	mg/kg	0.32	95UCL	6.7E+04	--	5E-06	--
24522 RAVENNA AVE	Toluene	µg/kg	7.339	95UCL	1.6E+07	--	5E-07	--
24522 RAVENNA AVE	TPH as Diesel	mg/kg	2802	95UCL	1.9E+03	--	2E+00	--
24522 RAVENNA AVE	TPH as Gasoline	mg/kg	360.2	95UCL	8.6E+02	--	4E-01	--
24522 RAVENNA AVE	TPH as Motor Oil	mg/kg	2677	95UCL	1.6E+05	--	2E-02	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24522 RAVENNA AVE	Xylenes, Total	µg/kg	208.9	95UCL	4.7E+05	--	4E-04	--
24523 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.27	Max	7.5E+04	--	4E-06	--
24523 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0078	95UCL	1.9E+05	2.7E+03	4E-08	3E-11
24523 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0304	95UCL	1.1E+04	--	3E-06	--
24523 MARBELLA AVE	Benzene	µg/kg	0.238	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
24523 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.54	Max	6.3E+04	6.4E+03	9E-06	8E-10
24523 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.52	Max	3.2E+03	6.7E+00	2E-04	8E-07
24523 MARBELLA AVE	Cobalt	mg/kg	10.91	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24523 MARBELLA AVE	Naphthalene	mg/kg	0.0146	95UCL	1.4E+02	3.9E+01	1E-04	4E-09
24523 MARBELLA AVE	Pyrene	mg/kg	0.293	95UCL	6.7E+04	--	4E-06	--
24523 MARBELLA AVE	Tetrachloroethene	µg/kg	0.926	95UCL	8.6E+04	1.0E+04	1E-05	9E-10
24523 MARBELLA AVE	Toluene	µg/kg	0.19	95UCL	1.6E+07	--	1E-08	--
24523 MARBELLA AVE	TPH as Diesel	mg/kg	192	95UCL	1.9E+03	--	1E-01	--
24523 MARBELLA AVE	TPH as Gasoline	mg/kg	0.092	Max	8.6E+02	--	1E-04	--
24523 MARBELLA AVE	TPH as Motor Oil	mg/kg	408	95UCL	1.6E+05	--	3E-03	--
24523 MARBELLA AVE	Xylenes, Total	µg/kg	0.21	Max	4.7E+05	--	5E-07	--
24523 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	8593	95UCL	7.5E+04	--	1E-01	--
24523 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1463	95UCL	7.7E+04	--	2E-02	--
24523 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	5.043	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24523 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	12.13	95UCL	1.1E+04	--	1E-03	--
24523 NEPTUNE AVE	Benzene	µg/kg	3091	95UCL	6.9E+04	2.2E+03	5E-02	1E-05
24523 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.5	Max	6.3E+04	6.4E+03	8E-06	8E-10
24523 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.31	Max	3.2E+03	6.7E+00	1E-04	5E-07
24523 NEPTUNE AVE	Cobalt	mg/kg	9.98	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24523 NEPTUNE AVE	Ethylbenzene	µg/kg	2796	95UCL	4.5E+06	5.1E+04	6E-04	6E-07
24523 NEPTUNE AVE	Naphthalene	mg/kg	5.235	95UCL	1.4E+02	3.9E+01	4E-02	1E-06
24523 NEPTUNE AVE	Pyrene	mg/kg	1.198	95UCL	6.7E+04	--	2E-05	--
24523 NEPTUNE AVE	Toluene	µg/kg	54.75	95UCL	1.6E+07	--	3E-06	--
24523 NEPTUNE AVE	TPH as Diesel	mg/kg	7201	95UCL	1.9E+03	--	4E+00	--
24523 NEPTUNE AVE	TPH as Gasoline	mg/kg	1039	95UCL	8.6E+02	--	1E+00	--
24523 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6934	95UCL	1.6E+05	--	4E-02	--
24523 NEPTUNE AVE	Xylenes, Total	µg/kg	14929	95UCL	4.7E+05	--	3E-02	--
24523 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	41.72	95UCL	7.5E+04	--	6E-04	--
24523 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	31	Max	7.7E+04	--	4E-04	--
24523 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	1	Max	8.7E+06	2.8E+04	1E-07	4E-10
24523 RAVENNA AVE	1-Methylnaphthalene	mg/kg	3.761	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24523 RAVENNA AVE	2-Methylnaphthalene	mg/kg	9.301	95UCL	1.1E+04	--	8E-04	--
24523 RAVENNA AVE	Benzene	µg/kg	26.41	95UCL	6.9E+04	2.2E+03	4E-04	1E-07
24523 RAVENNA AVE	Bromomethane	µg/kg	290	Max	7.8E+03	--	4E-02	--
24523 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.11	Max	3.2E+03	6.7E+00	4E-05	2E-07
24523 RAVENNA AVE	Ethylbenzene	µg/kg	1031	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24523 RAVENNA AVE	Naphthalene	mg/kg	3.806	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24523 RAVENNA AVE	Pyrene	mg/kg	0.414	95UCL	6.7E+04	--	6E-06	--
24523 RAVENNA AVE	Toluene	µg/kg	7.922	95UCL	1.6E+07	--	5E-07	--
24523 RAVENNA AVE	TPH as Diesel	mg/kg	4204	95UCL	1.9E+03	--	2E+00	--
24523 RAVENNA AVE	TPH as Gasoline	mg/kg	270.7	95UCL	8.6E+02	--	3E-01	--
24523 RAVENNA AVE	TPH as Motor Oil	mg/kg	5356	95UCL	1.6E+05	--	3E-02	--
24523 RAVENNA AVE	Trichloroethene	µg/kg	0.24	Max	5.5E+03	1.9E+04	4E-05	1E-10
24523 RAVENNA AVE	Xylenes, Total	µg/kg	11.47	95UCL	4.7E+05	--	2E-05	--
24526 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	10139	95UCL	7.5E+04	--	1E-01	--
24526 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	3089	95UCL	7.7E+04	--	4E-02	--
24526 MARBELLA AVE	1-Methylnaphthalene	mg/kg	13.68	95UCL	1.9E+05	2.7E+03	7E-05	5E-08
24526 MARBELLA AVE	2-Methylnaphthalene	mg/kg	20.74	95UCL	1.1E+04	--	2E-03	--
24526 MARBELLA AVE	Benzene	µg/kg	6513	95UCL	6.9E+04	2.2E+03	9E-02	3E-05
24526 MARBELLA AVE	Bromodichloromethane	µg/kg	5.2	Max	4.9E+05	5.3E+03	1E-05	1E-08
24526 MARBELLA AVE	Bromomethane	µg/kg	9.2	Max	7.8E+03	--	1E-03	--
24526 MARBELLA AVE	Cobalt	mg/kg	11.22	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24526 MARBELLA AVE	Ethylbenzene	µg/kg	7371	95UCL	4.5E+06	5.1E+04	2E-03	1E-06
24526 MARBELLA AVE	Naphthalene	mg/kg	10.74	95UCL	1.4E+02	3.9E+01	8E-02	3E-06
24526 MARBELLA AVE	Pyrene	mg/kg	0.653	95UCL	6.7E+04	--	1E-05	--
24526 MARBELLA AVE	Toluene	µg/kg	102.8	95UCL	1.6E+07	--	6E-06	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24526 MARBELLA AVE	TPH as Diesel	mg/kg	9703	95UCL	1.9E+03	--	5E+00	--
24526 MARBELLA AVE	TPH as Gasoline	mg/kg	1544	95UCL	8.6E+02	--	2E+00	--
24526 MARBELLA AVE	TPH as Motor Oil	mg/kg	9544	95UCL	1.6E+05	--	6E-02	--
24526 MARBELLA AVE	Xylenes, Total	µg/kg	13324	95UCL	4.7E+05	--	3E-02	--
24528 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	8.967	95UCL	7.5E+04	--	1E-04	--
24528 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	17	Max	7.7E+04	--	2E-04	--
24528 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.351	95UCL	1.9E+05	2.7E+03	7E-06	5E-09
24528 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.708	95UCL	1.1E+04	--	6E-05	--
24528 NEPTUNE AVE	Benzene	µg/kg	0.465	95UCL	6.9E+04	2.2E+03	7E-06	2E-09
24528 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.52	95UCL	6.3E+04	6.4E+03	8E-06	8E-10
24528 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.25	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24528 NEPTUNE AVE	Ethylbenzene	µg/kg	1300	Max	4.5E+06	5.1E+04	3E-04	3E-07
24528 NEPTUNE AVE	Naphthalene	mg/kg	0.595	95UCL	1.4E+02	3.9E+01	4E-03	2E-07
24528 NEPTUNE AVE	Pyrene	mg/kg	0.0561	95UCL	6.7E+04	--	8E-07	--
24528 NEPTUNE AVE	Tetrachloroethene	µg/kg	0.19	Max	8.6E+04	1.0E+04	2E-06	2E-10
24528 NEPTUNE AVE	Toluene	µg/kg	24.6	95UCL	1.6E+07	--	2E-06	--
24528 NEPTUNE AVE	TPH as Diesel	mg/kg	880.5	95UCL	1.9E+03	--	5E-01	--
24528 NEPTUNE AVE	TPH as Gasoline	mg/kg	87.64	95UCL	8.6E+02	--	1E-01	--
24528 NEPTUNE AVE	TPH as Motor Oil	mg/kg	835.7	95UCL	1.6E+05	--	5E-03	--
24528 NEPTUNE AVE	Trichloroethene	µg/kg	720	Max	5.5E+03	1.9E+04	1E-01	4E-07
24528 NEPTUNE AVE	Xylenes, Total	µg/kg	130	Max	4.7E+05	--	3E-04	--
24528 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0158	95UCL	1.9E+05	2.7E+03	8E-08	6E-11
24528 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0494	95UCL	1.1E+04	--	5E-06	--
24528 PANAMA AVE	Benzene	µg/kg	0.768	95UCL	6.9E+04	2.2E+03	1E-05	3E-09
24528 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.11	Max	6.3E+04	6.4E+03	2E-06	2E-10
24528 PANAMA AVE	Ethylbenzene	µg/kg	0.29	Max	4.5E+06	5.1E+04	6E-08	6E-11
24528 PANAMA AVE	Naphthalene	mg/kg	0.0121	95UCL	1.4E+02	3.9E+01	9E-05	3E-09
24528 PANAMA AVE	Pyrene	mg/kg	0.457	95UCL	6.7E+04	--	7E-06	--
24528 PANAMA AVE	Toluene	µg/kg	0.844	95UCL	1.6E+07	--	5E-08	--
24528 PANAMA AVE	TPH as Diesel	mg/kg	246.4	95UCL	1.9E+03	--	1E-01	--
24528 PANAMA AVE	TPH as Gasoline	mg/kg	4.377	95UCL	8.6E+02	--	5E-03	--
24528 PANAMA AVE	TPH as Motor Oil	mg/kg	654.6	95UCL	1.6E+05	--	4E-03	--
24528 PANAMA AVE	Xylenes, Total	µg/kg	0.288	95UCL	4.7E+05	--	6E-07	--
24529 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	5707	95UCL	7.5E+04	--	8E-02	--
24529 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1142	95UCL	7.7E+04	--	2E-02	--
24529 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	6.467	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24529 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	17.27	95UCL	1.1E+04	--	2E-03	--
24529 NEPTUNE AVE	Benzene	µg/kg	3154	95UCL	6.9E+04	2.2E+03	5E-02	1E-05
24529 NEPTUNE AVE	Bromodichloromethane	µg/kg	0.28	Max	4.9E+05	5.3E+03	6E-07	5E-10
24529 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.42	Max	3.2E+03	6.7E+00	1E-04	6E-07
24529 NEPTUNE AVE	Ethylbenzene	µg/kg	2323	95UCL	4.5E+06	5.1E+04	5E-04	5E-07
24529 NEPTUNE AVE	Naphthalene	mg/kg	5.303	95UCL	1.4E+02	3.9E+01	4E-02	1E-06
24529 NEPTUNE AVE	Pyrene	mg/kg	4.062	95UCL	6.7E+04	--	6E-05	--
24529 NEPTUNE AVE	Toluene	µg/kg	1353	95UCL	1.6E+07	--	8E-05	--
24529 NEPTUNE AVE	TPH as Diesel	mg/kg	5613	95UCL	1.9E+03	--	3E+00	--
24529 NEPTUNE AVE	TPH as Gasoline	mg/kg	734.4	95UCL	8.6E+02	--	9E-01	--
24529 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3944	95UCL	1.6E+05	--	3E-02	--
24529 NEPTUNE AVE	Xylenes, Total	µg/kg	12666	95UCL	4.7E+05	--	3E-02	--
24529 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.53	Max	7.5E+04	--	7E-06	--
24529 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0057	Max	1.9E+05	2.7E+03	3E-08	2E-11
24529 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.00768	95UCL	1.1E+04	--	7E-07	--
24529 PANAMA AVE	Benzene	µg/kg	0.556	95UCL	6.9E+04	2.2E+03	8E-06	3E-09
24529 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.463	95UCL	3.2E+03	6.7E+00	2E-04	7E-07
24529 PANAMA AVE	Ethylbenzene	µg/kg	0.4	Max	4.5E+06	5.1E+04	9E-08	8E-11
24529 PANAMA AVE	Naphthalene	mg/kg	0.00683	95UCL	1.4E+02	3.9E+01	5E-05	2E-09
24529 PANAMA AVE	Pyrene	mg/kg	0.013	95UCL	6.7E+04	--	2E-07	--
24529 PANAMA AVE	Toluene	µg/kg	1.1	Max	1.6E+07	--	7E-08	--
24529 PANAMA AVE	TPH as Diesel	mg/kg	83	Max	1.9E+03	--	4E-02	--
24529 PANAMA AVE	TPH as Gasoline	mg/kg	0.0744	95UCL	8.6E+02	--	9E-05	--
24529 PANAMA AVE	TPH as Motor Oil	mg/kg	51.07	95UCL	1.6E+05	--	3E-04	--
24529 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	5600	Max	7.5E+04	--	7E-02	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24529 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	680	Max	7.7E+04	--	9E-03	--
24529 RAVENNA AVE	1-Methylnaphthalene	mg/kg	6.945	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24529 RAVENNA AVE	2-Methylnaphthalene	mg/kg	10.7	95UCL	1.1E+04	--	1E-03	--
24529 RAVENNA AVE	Benzene	µg/kg	61.87	95UCL	6.9E+04	2.2E+03	9E-04	3E-07
24529 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.22	Max	6.3E+04	6.4E+03	4E-06	3E-10
24529 RAVENNA AVE	Bromodichloromethane	µg/kg	1.2	Max	4.9E+05	5.3E+03	3E-06	2E-09
24529 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	3.2E+03	6.7E+00	9E-05	4E-07
24529 RAVENNA AVE	Ethylbenzene	µg/kg	1448	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24529 RAVENNA AVE	Naphthalene	mg/kg	4.568	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24529 RAVENNA AVE	Pyrene	mg/kg	0.216	95UCL	6.7E+04	--	3E-06	--
24529 RAVENNA AVE	Toluene	µg/kg	0.947	95UCL	1.6E+07	--	6E-08	--
24529 RAVENNA AVE	TPH as Diesel	mg/kg	4286	95UCL	1.9E+03	--	2E+00	--
24529 RAVENNA AVE	TPH as Gasoline	mg/kg	400.8	95UCL	8.6E+02	--	5E-01	--
24529 RAVENNA AVE	TPH as Motor Oil	mg/kg	4630	95UCL	1.6E+05	--	3E-02	--
24529 RAVENNA AVE	Xylenes, Total	µg/kg	580	Max	4.7E+05	--	1E-03	--
24532 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	6237	95UCL	7.5E+04	--	8E-02	--
24532 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	841.5	95UCL	7.7E+04	--	1E-02	--
24532 MARBELLA AVE	1-Methylnaphthalene	mg/kg	8.263	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24532 MARBELLA AVE	2-Methylnaphthalene	mg/kg	21.36	95UCL	1.1E+04	--	2E-03	--
24532 MARBELLA AVE	Benzene	µg/kg	1325	95UCL	6.9E+04	2.2E+03	2E-02	6E-06
24532 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.79	Max	6.3E+04	6.4E+03	1E-05	1E-09
24532 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.16	95UCL	3.2E+03	6.7E+00	5E-05	2E-07
24532 MARBELLA AVE	Cobalt	mg/kg	11.54	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24532 MARBELLA AVE	Ethylbenzene	µg/kg	5317	95UCL	4.5E+06	5.1E+04	1E-03	1E-06
24532 MARBELLA AVE	Naphthalene	mg/kg	11.64	95UCL	1.4E+02	3.9E+01	8E-02	3E-06
24532 MARBELLA AVE	Pyrene	mg/kg	0.33	95UCL	6.7E+04	--	5E-06	--
24532 MARBELLA AVE	Toluene	µg/kg	6.175	95UCL	1.6E+07	--	4E-07	--
24532 MARBELLA AVE	TPH as Diesel	mg/kg	11443	95UCL	1.9E+03	--	6E+00	--
24532 MARBELLA AVE	TPH as Gasoline	mg/kg	1038	95UCL	8.6E+02	--	1E+00	--
24532 MARBELLA AVE	TPH as Motor Oil	mg/kg	10845	95UCL	1.6E+05	--	7E-02	--
24532 MARBELLA AVE	Xylenes, Total	µg/kg	2304	95UCL	4.7E+05	--	5E-03	--
24532 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0017	95UCL	1.1E+04	--	2E-07	--
24532 NEPTUNE AVE	Benzene	µg/kg	0.458	95UCL	6.9E+04	2.2E+03	7E-06	2E-09
24532 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	7.5	Max	6.3E+04	6.4E+03	1E-04	1E-08
24532 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.31	Max	3.2E+03	6.7E+00	1E-04	5E-07
24532 NEPTUNE AVE	Ethylbenzene	µg/kg	2.2	Max	4.5E+06	5.1E+04	5E-07	4E-10
24532 NEPTUNE AVE	Naphthalene	mg/kg	0.00139	95UCL	1.4E+02	3.9E+01	1E-05	4E-10
24532 NEPTUNE AVE	Pyrene	mg/kg	0.00892	95UCL	6.7E+04	--	1E-07	--
24532 NEPTUNE AVE	Toluene	µg/kg	0.405	95UCL	1.6E+07	--	3E-08	--
24532 NEPTUNE AVE	TPH as Diesel	mg/kg	15.95	95UCL	1.9E+03	--	8E-03	--
24532 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.089	95UCL	8.6E+02	--	1E-04	--
24532 NEPTUNE AVE	TPH as Motor Oil	mg/kg	46.89	95UCL	1.6E+05	--	3E-04	--
24532 NEPTUNE AVE	Xylenes, Total	µg/kg	25	Max	4.7E+05	--	5E-05	--
24532 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	180	Max	2.0E+03	7.2E+03	9E-02	3E-07
24532 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.89	Max	7.5E+04	--	1E-05	--
24532 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	1.6	Max	7.7E+04	--	2E-05	--
24532 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0914	95UCL	1.9E+05	2.7E+03	5E-07	3E-10
24532 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.158	95UCL	1.1E+04	--	1E-05	--
24532 PANAMA AVE	Benzene	µg/kg	0.164	95UCL	6.9E+04	2.2E+03	2E-06	7E-10
24532 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.2	Max	6.3E+04	6.4E+03	3E-06	3E-10
24532 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	3.2E+03	6.7E+00	9E-05	4E-07
24532 PANAMA AVE	Ethylbenzene	µg/kg	16	Max	4.5E+06	5.1E+04	4E-06	3E-09
24532 PANAMA AVE	Naphthalene	mg/kg	0.0711	95UCL	1.4E+02	3.9E+01	5E-04	2E-08
24532 PANAMA AVE	Pyrene	mg/kg	1.055	95UCL	6.7E+04	--	2E-05	--
24532 PANAMA AVE	TPH as Diesel	mg/kg	1473	95UCL	1.9E+03	--	8E-01	--
24532 PANAMA AVE	TPH as Gasoline	mg/kg	8.942	95UCL	8.6E+02	--	1E-02	--
24532 PANAMA AVE	TPH as Motor Oil	mg/kg	2589	95UCL	1.6E+05	--	2E-02	--
24532 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.33	Max	7.5E+04	--	4E-06	--
24532 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.2	Max	8.7E+06	2.8E+04	2E-08	7E-11
24532 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0027	95UCL	1.9E+05	2.7E+03	1E-08	1E-11
24532 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00459	95UCL	1.1E+04	--	4E-07	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24532 RAVENNA AVE	Benzene	µg/kg	0.708	95UCL	6.9E+04	2.2E+03	1E-05	3E-09
24532 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.2	Max	6.3E+04	6.4E+03	3E-06	3E-10
24532 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.326	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24532 RAVENNA AVE	Ethylbenzene	µg/kg	0.284	95UCL	4.5E+06	5.1E+04	6E-08	6E-11
24532 RAVENNA AVE	Naphthalene	mg/kg	0.00357	95UCL	1.4E+02	3.9E+01	3E-05	9E-10
24532 RAVENNA AVE	Pyrene	mg/kg	0.00579	95UCL	6.7E+04	--	9E-08	--
24532 RAVENNA AVE	Toluene	µg/kg	0.279	95UCL	1.6E+07	--	2E-08	--
24532 RAVENNA AVE	TPH as Diesel	mg/kg	47.41	95UCL	1.9E+03	--	3E-02	--
24532 RAVENNA AVE	TPH as Gasoline	mg/kg	0.11	Max	8.6E+02	--	1E-04	--
24532 RAVENNA AVE	TPH as Motor Oil	mg/kg	148.6	95UCL	1.6E+05	--	9E-04	--
24532 RAVENNA AVE	Xylenes, Total	µg/kg	0.41	Max	4.7E+05	--	9E-07	--
24533 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.77	Max	7.5E+04	--	1E-05	--
24533 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.11	95UCL	7.7E+04	--	1E-06	--
24533 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.00336	95UCL	1.9E+05	2.7E+03	2E-08	1E-11
24533 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00443	95UCL	1.1E+04	--	4E-07	--
24533 MARBELLA AVE	Benzene	µg/kg	2.467	95UCL	6.9E+04	2.2E+03	4E-05	1E-08
24533 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.24	Max	6.3E+04	6.4E+03	4E-06	4E-10
24533 MARBELLA AVE	Bromodichloromethane	µg/kg	0.29	Max	4.9E+05	5.3E+03	6E-07	6E-10
24533 MARBELLA AVE	Bromomethane	µg/kg	1.821	95UCL	7.8E+03	--	2E-04	--
24533 MARBELLA AVE	Cobalt	mg/kg	11.22	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24533 MARBELLA AVE	Ethylbenzene	µg/kg	0.36	95UCL	4.5E+06	5.1E+04	8E-08	7E-11
24533 MARBELLA AVE	Naphthalene	mg/kg	0.00388	95UCL	1.4E+02	3.9E+01	3E-05	1E-09
24533 MARBELLA AVE	Pyrene	mg/kg	0.019	95UCL	6.7E+04	--	3E-07	--
24533 MARBELLA AVE	Tetrachloroethene	µg/kg	1.241	95UCL	8.6E+04	1.0E+04	1E-05	1E-09
24533 MARBELLA AVE	Toluene	µg/kg	8.704	95UCL	1.6E+07	--	5E-07	--
24533 MARBELLA AVE	TPH as Diesel	mg/kg	77.18	95UCL	1.9E+03	--	4E-02	--
24533 MARBELLA AVE	TPH as Gasoline	mg/kg	0.179	95UCL	8.6E+02	--	2E-04	--
24533 MARBELLA AVE	TPH as Motor Oil	mg/kg	237.5	95UCL	1.6E+05	--	2E-03	--
24533 MARBELLA AVE	Xylenes, Total	µg/kg	5.978	95UCL	4.7E+05	--	1E-05	--
24533 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.31	Max	7.5E+04	--	4E-06	--
24533 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00629	95UCL	1.9E+05	2.7E+03	3E-08	2E-11
24533 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0261	95UCL	1.1E+04	--	2E-06	--
24533 PANAMA AVE	Benzene	µg/kg	0.556	95UCL	6.9E+04	2.2E+03	8E-06	3E-09
24533 PANAMA AVE	Bromomethane	µg/kg	5	Max	7.8E+03	--	6E-04	--
24533 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.268	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24533 PANAMA AVE	Ethylbenzene	µg/kg	0.24	95UCL	4.5E+06	5.1E+04	5E-08	5E-11
24533 PANAMA AVE	Naphthalene	mg/kg	0.00973	95UCL	1.4E+02	3.9E+01	7E-05	3E-09
24533 PANAMA AVE	Pyrene	mg/kg	0.355	95UCL	6.7E+04	--	5E-06	--
24533 PANAMA AVE	Toluene	µg/kg	0.24	95UCL	1.6E+07	--	2E-08	--
24533 PANAMA AVE	TPH as Diesel	mg/kg	615.9	95UCL	1.9E+03	--	3E-01	--
24533 PANAMA AVE	TPH as Gasoline	mg/kg	10.57	95UCL	8.6E+02	--	1E-02	--
24533 PANAMA AVE	TPH as Motor Oil	mg/kg	1072	95UCL	1.6E+05	--	7E-03	--
24533 PANAMA AVE	Xylenes, Total	µg/kg	0.4	Max	4.7E+05	--	9E-07	--
24533 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.379	95UCL	7.5E+04	--	5E-06	--
24533 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0036	95UCL	1.9E+05	2.7E+03	2E-08	1E-11
24533 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00253	95UCL	1.1E+04	--	2E-07	--
24533 RAVENNA AVE	Benzene	µg/kg	0.293	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24533 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.45	Max	6.3E+04	6.4E+03	7E-06	7E-10
24533 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.25	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24533 RAVENNA AVE	Ethylbenzene	µg/kg	0.86	Max	4.5E+06	5.1E+04	2E-07	2E-10
24533 RAVENNA AVE	Naphthalene	mg/kg	0.00607	95UCL	1.4E+02	3.9E+01	4E-05	2E-09
24533 RAVENNA AVE	Pyrene	mg/kg	0.029	95UCL	6.7E+04	--	4E-07	--
24533 RAVENNA AVE	Toluene	µg/kg	0.189	95UCL	1.6E+07	--	1E-08	--
24533 RAVENNA AVE	TPH as Diesel	mg/kg	10.78	95UCL	1.9E+03	--	6E-03	--
24533 RAVENNA AVE	TPH as Gasoline	mg/kg	0.16	Max	8.6E+02	--	2E-04	--
24533 RAVENNA AVE	TPH as Motor Oil	mg/kg	12.92	95UCL	1.6E+05	--	8E-05	--
24533 RAVENNA AVE	Xylenes, Total	µg/kg	0.27	Max	4.7E+05	--	6E-07	--
24602 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	36	Max	7.5E+04	--	5E-04	--
24602 MARBELLA AVE	1-Methylnaphthalene	mg/kg	23.05	95UCL	1.9E+05	2.7E+03	1E-04	9E-08
24602 MARBELLA AVE	2-Methylnaphthalene	mg/kg	45.03	95UCL	1.1E+04	--	4E-03	--
24602 MARBELLA AVE	Benzene	µg/kg	6.138	95UCL	6.9E+04	2.2E+03	9E-05	3E-08

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24602 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.18	Max	6.3E+04	6.4E+03	3E-06	3E-10
24602 MARBELLA AVE	Bromomethane	µg/kg	90	Max	7.8E+03	--	1E-02	--
24602 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.8	Max	3.2E+03	6.7E+00	3E-04	1E-06
24602 MARBELLA AVE	Cobalt	mg/kg	10.42	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24602 MARBELLA AVE	Ethylbenzene	µg/kg	422.9	95UCL	4.5E+06	5.1E+04	9E-05	8E-08
24602 MARBELLA AVE	Naphthalene	mg/kg	8.34	95UCL	1.4E+02	3.9E+01	6E-02	2E-06
24602 MARBELLA AVE	Pyrene	mg/kg	0.569	95UCL	6.7E+04	--	9E-06	--
24602 MARBELLA AVE	Tetrachloroethene	µg/kg	2.6	Max	8.6E+04	1.0E+04	3E-05	3E-09
24602 MARBELLA AVE	Toluene	µg/kg	1.718	95UCL	1.6E+07	--	1E-07	--
24602 MARBELLA AVE	TPH as Diesel	mg/kg	3527	95UCL	1.9E+03	--	2E+00	--
24602 MARBELLA AVE	TPH as Gasoline	mg/kg	211	95UCL	8.6E+02	--	3E-01	--
24602 MARBELLA AVE	TPH as Motor Oil	mg/kg	3155	95UCL	1.6E+05	--	2E-02	--
24602 MARBELLA AVE	Vanadium	mg/kg	40.83	95UCL	3.3E+03	--	1E-02	--
24602 MARBELLA AVE	Xylenes, Total	µg/kg	190	Max	4.7E+05	--	4E-04	--
24602 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.00151	95UCL	1.9E+05	2.7E+03	8E-09	6E-12
24602 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0032	95UCL	1.1E+04	--	3E-07	--
24602 NEPTUNE AVE	Benzene	µg/kg	0.243	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24602 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.252	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24602 NEPTUNE AVE	Naphthalene	mg/kg	0.0022	95UCL	1.4E+02	3.9E+01	2E-05	6E-10
24602 NEPTUNE AVE	Pyrene	mg/kg	0.00757	95UCL	6.7E+04	--	1E-07	--
24602 NEPTUNE AVE	Toluene	µg/kg	0.231	95UCL	1.6E+07	--	1E-08	--
24602 NEPTUNE AVE	TPH as Diesel	mg/kg	43.88	95UCL	1.9E+03	--	2E-02	--
24602 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.102	95UCL	8.6E+02	--	1E-04	--
24602 NEPTUNE AVE	TPH as Motor Oil	mg/kg	227.3	95UCL	1.6E+05	--	1E-03	--
24602 NEPTUNE AVE	Xylenes, Total	µg/kg	0.35	Max	4.7E+05	--	7E-07	--
24602 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.741	95UCL	7.5E+04	--	1E-05	--
24602 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.41	95UCL	7.7E+04	--	5E-06	--
24602 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.36	95UCL	1.9E+05	2.7E+03	2E-06	1E-09
24602 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.414	95UCL	1.1E+04	--	4E-05	--
24602 PANAMA AVE	Benzene	µg/kg	0.281	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24602 PANAMA AVE	Bromomethane	µg/kg	2.2	Max	7.8E+03	--	3E-04	--
24602 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.284	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24602 PANAMA AVE	Ethylbenzene	µg/kg	0.198	95UCL	4.5E+06	5.1E+04	4E-08	4E-11
24602 PANAMA AVE	Naphthalene	mg/kg	0.0921	95UCL	1.4E+02	3.9E+01	7E-04	2E-08
24602 PANAMA AVE	Pyrene	mg/kg	1.112	95UCL	6.7E+04	--	2E-05	--
24602 PANAMA AVE	Toluene	µg/kg	2.07	95UCL	1.6E+07	--	1E-07	--
24602 PANAMA AVE	TPH as Diesel	mg/kg	1853	95UCL	1.9E+03	--	1E+00	--
24602 PANAMA AVE	TPH as Gasoline	mg/kg	0.251	95UCL	8.6E+02	--	3E-04	--
24602 PANAMA AVE	TPH as Motor Oil	mg/kg	2991	95UCL	1.6E+05	--	2E-02	--
24602 PANAMA AVE	Xylenes, Total	µg/kg	0.327	95UCL	4.7E+05	--	7E-07	--
24602 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.219	95UCL	7.5E+04	--	3E-06	--
24602 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.00845	95UCL	1.9E+05	2.7E+03	4E-08	3E-11
24602 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0132	95UCL	1.1E+04	--	1E-06	--
24602 RAVENNA AVE	Benzene	µg/kg	0.203	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24602 RAVENNA AVE	Bromomethane	µg/kg	3.236	95UCL	7.8E+03	--	4E-04	--
24602 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	3.2E+03	6.7E+00	1E-04	6E-07
24602 RAVENNA AVE	Naphthalene	mg/kg	0.00575	95UCL	1.4E+02	3.9E+01	4E-05	2E-09
24602 RAVENNA AVE	Pyrene	mg/kg	0.0541	95UCL	6.7E+04	--	8E-07	--
24602 RAVENNA AVE	Toluene	µg/kg	0.955	95UCL	1.6E+07	--	6E-08	--
24602 RAVENNA AVE	TPH as Diesel	mg/kg	96.67	95UCL	1.9E+03	--	5E-02	--
24602 RAVENNA AVE	TPH as Gasoline	mg/kg	0.0703	95UCL	8.6E+02	--	8E-05	--
24602 RAVENNA AVE	TPH as Motor Oil	mg/kg	303.8	95UCL	1.6E+05	--	2E-03	--
24603 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	5.007	95UCL	7.5E+04	--	7E-05	--
24603 MARBELLA AVE	1-Methylnaphthalene	mg/kg	2.982	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24603 MARBELLA AVE	2-Methylnaphthalene	mg/kg	3.55	95UCL	1.1E+04	--	3E-04	--
24603 MARBELLA AVE	Benzene	µg/kg	0.368	95UCL	6.9E+04	2.2E+03	5E-06	2E-09
24603 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.63	Max	6.3E+04	6.4E+03	1E-05	1E-09
24603 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.219	95UCL	3.2E+03	6.7E+00	7E-05	3E-07
24603 MARBELLA AVE	Cobalt	mg/kg	11.51	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24603 MARBELLA AVE	Naphthalene	mg/kg	0.775	95UCL	1.4E+02	3.9E+01	6E-03	2E-07
24603 MARBELLA AVE	Pyrene	mg/kg	1.286	95UCL	6.7E+04	--	2E-05	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24603 MARBELLA AVE	Tetrachloroethene	µg/kg	0.754	95UCL	8.6E+04	1.0E+04	9E-06	8E-10
24603 MARBELLA AVE	Toluene	µg/kg	0.273	95UCL	1.6E+07	--	2E-08	--
24603 MARBELLA AVE	TPH as Diesel	mg/kg	2668	95UCL	1.9E+03	--	1E+00	--
24603 MARBELLA AVE	TPH as Gasoline	mg/kg	12.61	95UCL	8.6E+02	--	2E-02	--
24603 MARBELLA AVE	TPH as Motor Oil	mg/kg	4203	95UCL	1.6E+05	--	3E-02	--
24603 MARBELLA AVE	Trichloroethene	µg/kg	2.4	Max	5.5E+03	1.9E+04	4E-04	1E-09
24603 MARBELLA AVE	Vanadium	mg/kg	45.1	95UCL	3.3E+03	--	1E-02	--
24603 NEPTUNE AVE	1,1,2,2-Tetrachloroethane	µg/kg	1.2	Max	8.3E+05	5.7E+03	1E-06	2E-09
24603 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	4174	95UCL	7.5E+04	--	6E-02	--
24603 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	959	95UCL	7.7E+04	--	1E-02	--
24603 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.83	95UCL	1.9E+05	2.7E+03	9E-06	7E-09
24603 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	3.311	95UCL	1.1E+04	--	3E-04	--
24603 NEPTUNE AVE	Benzene	µg/kg	444.6	95UCL	6.9E+04	2.2E+03	6E-03	2E-06
24603 NEPTUNE AVE	Bromodichloromethane	µg/kg	170	Max	4.9E+05	5.3E+03	4E-04	3E-07
24603 NEPTUNE AVE	Bromomethane	µg/kg	2.1	Max	7.8E+03	--	3E-04	--
24603 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.34	Max	3.2E+03	6.7E+00	1E-04	5E-07
24603 NEPTUNE AVE	Ethylbenzene	µg/kg	679.3	95UCL	4.5E+06	5.1E+04	2E-04	1E-07
24603 NEPTUNE AVE	Naphthalene	mg/kg	1.507	95UCL	1.4E+02	3.9E+01	1E-02	4E-07
24603 NEPTUNE AVE	Pyrene	mg/kg	0.0802	95UCL	6.7E+04	--	1E-06	--
24603 NEPTUNE AVE	Toluene	µg/kg	526.8	95UCL	1.6E+07	--	3E-05	--
24603 NEPTUNE AVE	TPH as Diesel	mg/kg	1339	95UCL	1.9E+03	--	7E-01	--
24603 NEPTUNE AVE	TPH as Gasoline	mg/kg	286.4	95UCL	8.6E+02	--	3E-01	--
24603 NEPTUNE AVE	TPH as Motor Oil	mg/kg	823.6	95UCL	1.6E+05	--	5E-03	--
24603 NEPTUNE AVE	Xylenes, Total	µg/kg	9094	95UCL	4.7E+05	--	2E-02	--
24603 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1	Max	7.5E+04	--	1E-05	--
24603 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.114	95UCL	1.9E+05	2.7E+03	6E-07	4E-10
24603 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.104	95UCL	1.1E+04	--	9E-06	--
24603 PANAMA AVE	Benzene	µg/kg	0.72	Max	6.9E+04	2.2E+03	1E-05	3E-09
24603 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.324	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24603 PANAMA AVE	Naphthalene	mg/kg	0.0228	95UCL	1.4E+02	3.9E+01	2E-04	6E-09
24603 PANAMA AVE	Pyrene	mg/kg	1.028	95UCL	6.7E+04	--	2E-05	--
24603 PANAMA AVE	Toluene	µg/kg	0.82	Max	1.6E+07	--	5E-08	--
24603 PANAMA AVE	TPH as Diesel	mg/kg	863.6	95UCL	1.9E+03	--	5E-01	--
24603 PANAMA AVE	TPH as Gasoline	mg/kg	0.116	95UCL	8.6E+02	--	1E-04	--
24603 PANAMA AVE	TPH as Motor Oil	mg/kg	1177	95UCL	1.6E+05	--	7E-03	--
24603 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.203	95UCL	7.5E+04	--	3E-06	--
24603 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.091	Max	7.7E+04	--	1E-06	--
24603 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0539	95UCL	1.9E+05	2.7E+03	3E-07	2E-10
24603 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.215	95UCL	1.1E+04	--	2E-05	--
24603 RAVENNA AVE	Benzene	µg/kg	0.172	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24603 RAVENNA AVE	Bromomethane	µg/kg	2.2	Max	7.8E+03	--	3E-04	--
24603 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.175	95UCL	3.2E+03	6.7E+00	6E-05	3E-07
24603 RAVENNA AVE	Ethylbenzene	µg/kg	0.37	Max	4.5E+06	5.1E+04	8E-08	7E-11
24603 RAVENNA AVE	Methylene Chloride	µg/kg	360	Max	1.2E+06	5.9E+04	3E-04	6E-08
24603 RAVENNA AVE	Naphthalene	mg/kg	0.108	95UCL	1.4E+02	3.9E+01	8E-04	3E-08
24603 RAVENNA AVE	Pyrene	mg/kg	0.229	95UCL	6.7E+04	--	3E-06	--
24603 RAVENNA AVE	Thallium	mg/kg	2.573	95UCL	7.7E+01	--	3E-02	--
24603 RAVENNA AVE	Toluene	µg/kg	5.546	95UCL	1.6E+07	--	3E-07	--
24603 RAVENNA AVE	TPH as Diesel	mg/kg	964	95UCL	1.9E+03	--	5E-01	--
24603 RAVENNA AVE	TPH as Gasoline	mg/kg	0.0962	95UCL	8.6E+02	--	1E-04	--
24603 RAVENNA AVE	TPH as Motor Oil	mg/kg	2402	95UCL	1.6E+05	--	2E-02	--
24603 RAVENNA AVE	Xylenes, Total	µg/kg	0.364	95UCL	4.7E+05	--	8E-07	--
24606 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2428	95UCL	7.5E+04	--	3E-02	--
24606 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	420.6	95UCL	7.7E+04	--	5E-03	--
24606 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.52	Max	8.7E+06	2.8E+04	6E-08	2E-10
24606 MARBELLA AVE	1-Methylnaphthalene	mg/kg	11.66	95UCL	1.9E+05	2.7E+03	6E-05	4E-08
24606 MARBELLA AVE	2-Methylnaphthalene	mg/kg	17.98	95UCL	1.1E+04	--	2E-03	--
24606 MARBELLA AVE	Benzene	µg/kg	680.3	95UCL	6.9E+04	2.2E+03	1E-02	3E-06
24606 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.54	Max	6.3E+04	6.4E+03	9E-06	8E-10
24606 MARBELLA AVE	Bromodichloromethane	µg/kg	0.13	Max	4.9E+05	5.3E+03	3E-07	3E-10
24606 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.8	Max	3.2E+03	6.7E+00	3E-04	1E-06

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24606 MARBELLA AVE	Cobalt	mg/kg	9.92	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24606 MARBELLA AVE	Ethylbenzene	µg/kg	1699	95UCL	4.5E+06	5.1E+04	4E-04	3E-07
24606 MARBELLA AVE	Naphthalene	mg/kg	9.196	95UCL	1.4E+02	3.9E+01	7E-02	2E-06
24606 MARBELLA AVE	Pyrene	mg/kg	1.195	95UCL	6.7E+04	--	2E-05	--
24606 MARBELLA AVE	Toluene	µg/kg	94.6	95UCL	1.6E+07	--	6E-06	--
24606 MARBELLA AVE	TPH as Diesel	mg/kg	5815	95UCL	1.9E+03	--	3E+00	--
24606 MARBELLA AVE	TPH as Gasoline	mg/kg	511	95UCL	8.6E+02	--	6E-01	--
24606 MARBELLA AVE	TPH as Motor Oil	mg/kg	6216	95UCL	1.6E+05	--	4E-02	--
24606 MARBELLA AVE	Xylenes, Total	µg/kg	1063	95UCL	4.7E+05	--	2E-03	--
24607 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.1	Max	7.5E+04	--	1E-06	--
24607 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.38	Max	7.7E+04	--	5E-06	--
24607 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.00376	95UCL	1.9E+05	2.7E+03	2E-08	1E-11
24607 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00655	95UCL	1.1E+04	--	6E-07	--
24607 MARBELLA AVE	Benzene	µg/kg	0.317	95UCL	6.9E+04	2.2E+03	5E-06	1E-09
24607 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1	Max	6.3E+04	6.4E+03	2E-05	2E-09
24607 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.24	Max	3.2E+03	6.7E+00	8E-05	4E-07
24607 MARBELLA AVE	Cobalt	mg/kg	10.46	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24607 MARBELLA AVE	Naphthalene	mg/kg	0.0046	95UCL	1.4E+02	3.9E+01	3E-05	1E-09
24607 MARBELLA AVE	Pyrene	mg/kg	0.212	95UCL	6.7E+04	--	3E-06	--
24607 MARBELLA AVE	Tetrachloroethene	µg/kg	0.64	Max	8.6E+04	1.0E+04	7E-06	6E-10
24607 MARBELLA AVE	Toluene	µg/kg	0.315	95UCL	1.6E+07	--	2E-08	--
24607 MARBELLA AVE	TPH as Diesel	mg/kg	90.6	95UCL	1.9E+03	--	5E-02	--
24607 MARBELLA AVE	TPH as Gasoline	mg/kg	0.084	Max	8.6E+02	--	1E-04	--
24607 MARBELLA AVE	TPH as Motor Oil	mg/kg	183	95UCL	1.6E+05	--	1E-03	--
24607 MARBELLA AVE	Trichloroethene	µg/kg	0.43	Max	5.5E+03	1.9E+04	8E-05	2E-10
24608 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	421.2	95UCL	7.5E+04	--	6E-03	--
24608 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	111.4	95UCL	7.7E+04	--	1E-03	--
24608 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	4.995	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24608 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	0.67	Max	6.3E+03	2.8E+02	1E-04	2E-08
24608 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	8.224	95UCL	1.1E+04	--	7E-04	--
24608 NEPTUNE AVE	Benzene	µg/kg	0.344	95UCL	6.9E+04	2.2E+03	5E-06	2E-09
24608 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	3.2	95UCL	6.3E+04	6.4E+03	5E-05	5E-09
24608 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.84	Max	3.2E+03	6.7E+00	3E-04	1E-06
24608 NEPTUNE AVE	Ethylbenzene	µg/kg	206.1	95UCL	4.5E+06	5.1E+04	5E-05	4E-08
24608 NEPTUNE AVE	Naphthalene	mg/kg	5.581	95UCL	1.4E+02	3.9E+01	4E-02	1E-06
24608 NEPTUNE AVE	Pyrene	mg/kg	0.0479	95UCL	6.7E+04	--	7E-07	--
24608 NEPTUNE AVE	Toluene	µg/kg	0.332	95UCL	1.6E+07	--	2E-08	--
24608 NEPTUNE AVE	TPH as Diesel	mg/kg	4553	95UCL	1.9E+03	--	2E+00	--
24608 NEPTUNE AVE	TPH as Gasoline	mg/kg	330.6	95UCL	8.6E+02	--	4E-01	--
24608 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4186	95UCL	1.6E+05	--	3E-02	--
24608 NEPTUNE AVE	Xylenes, Total	µg/kg	58.56	95UCL	4.7E+05	--	1E-04	--
24608 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	120.8	95UCL	7.5E+04	--	2E-03	--
24608 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	36.39	95UCL	7.7E+04	--	5E-04	--
24608 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.527	95UCL	1.9E+05	2.7E+03	3E-06	2E-09
24608 PANAMA AVE	2,4-Dinitrotoluene	mg/kg	1.6	Max	6.3E+03	2.8E+02	3E-04	6E-08
24608 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.915	95UCL	1.1E+04	--	8E-05	--
24608 PANAMA AVE	Benzene	µg/kg	3.36	95UCL	6.9E+04	2.2E+03	5E-05	2E-08
24608 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.39	Max	3.2E+03	6.7E+00	1E-04	6E-07
24608 PANAMA AVE	Ethylbenzene	µg/kg	26.52	95UCL	4.5E+06	5.1E+04	6E-06	5E-09
24608 PANAMA AVE	Naphthalene	mg/kg	0.378	95UCL	1.4E+02	3.9E+01	3E-03	1E-07
24608 PANAMA AVE	Pyrene	mg/kg	3.182	95UCL	6.7E+04	--	5E-05	--
24608 PANAMA AVE	Thallium	mg/kg	2.123	95UCL	7.7E+01	--	3E-02	--
24608 PANAMA AVE	Toluene	µg/kg	17.86	95UCL	1.6E+07	--	1E-06	--
24608 PANAMA AVE	TPH as Diesel	mg/kg	9915	95UCL	1.9E+03	--	5E+00	--
24608 PANAMA AVE	TPH as Gasoline	mg/kg	0.506	95UCL	8.6E+02	--	6E-04	--
24608 PANAMA AVE	TPH as Motor Oil	mg/kg	17897	95UCL	1.6E+05	--	1E-01	--
24608 PANAMA AVE	Xylenes, Total	µg/kg	50.76	95UCL	4.7E+05	--	1E-04	--
24608 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1379	95UCL	7.5E+04	--	2E-02	--
24608 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	164.5	95UCL	7.7E+04	--	2E-03	--
24608 RAVENNA AVE	1-Methylnaphthalene	mg/kg	4.617	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24608 RAVENNA AVE	2-Methylnaphthalene	mg/kg	7.22	95UCL	1.1E+04	--	7E-04	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24608 RAVENNA AVE	Benzene	µg/kg	35.79	95UCL	6.9E+04	2.2E+03	5E-04	2E-07
24608 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.27	Max	6.3E+04	6.4E+03	4E-06	4E-10
24608 RAVENNA AVE	Bromomethane	µg/kg	2.7	Max	7.8E+03	--	4E-04	--
24608 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.289	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24608 RAVENNA AVE	Ethylbenzene	µg/kg	261.4	95UCL	4.5E+06	5.1E+04	6E-05	5E-08
24608 RAVENNA AVE	Methylene Chloride	µg/kg	2.9	Max	1.2E+06	5.9E+04	2E-06	5E-10
24608 RAVENNA AVE	Naphthalene	mg/kg	2.048	95UCL	1.4E+02	3.9E+01	1E-02	5E-07
24608 RAVENNA AVE	Pyrene	mg/kg	1.664	95UCL	6.7E+04	--	3E-05	--
24608 RAVENNA AVE	Toluene	µg/kg	3.572	95UCL	1.6E+07	--	2E-07	--
24608 RAVENNA AVE	TPH as Diesel	mg/kg	3181	95UCL	1.9E+03	--	2E+00	--
24608 RAVENNA AVE	TPH as Gasoline	mg/kg	138.7	95UCL	8.6E+02	--	2E-01	--
24608 RAVENNA AVE	TPH as Motor Oil	mg/kg	4248	95UCL	1.6E+05	--	3E-02	--
24608 RAVENNA AVE	Xylenes, Total	µg/kg	626.2	95UCL	4.7E+05	--	1E-03	--
24609 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	8061	95UCL	7.5E+04	--	1E-01	--
24609 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	2369	95UCL	7.7E+04	--	3E-02	--
24609 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	13.44	95UCL	1.9E+05	2.7E+03	7E-05	5E-08
24609 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	29.89	95UCL	1.1E+04	--	3E-03	--
24609 NEPTUNE AVE	Benzene	µg/kg	1244	95UCL	6.9E+04	2.2E+03	2E-02	6E-06
24609 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	3.5	Max	6.3E+04	6.4E+03	6E-05	6E-09
24609 NEPTUNE AVE	Bromomethane	µg/kg	310	Max	7.8E+03	--	4E-02	--
24609 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.34	Max	3.2E+03	6.7E+00	1E-04	5E-07
24609 NEPTUNE AVE	Ethylbenzene	µg/kg	3195	95UCL	4.5E+06	5.1E+04	7E-04	6E-07
24609 NEPTUNE AVE	Naphthalene	mg/kg	10.67	95UCL	1.4E+02	3.9E+01	8E-02	3E-06
24609 NEPTUNE AVE	Pyrene	mg/kg	4.114	95UCL	6.7E+04	--	6E-05	--
24609 NEPTUNE AVE	Toluene	µg/kg	872.8	95UCL	1.6E+07	--	5E-05	--
24609 NEPTUNE AVE	TPH as Diesel	mg/kg	13029	95UCL	1.9E+03	--	7E+00	--
24609 NEPTUNE AVE	TPH as Gasoline	mg/kg	1010	95UCL	8.6E+02	--	1E+00	--
24609 NEPTUNE AVE	TPH as Motor Oil	mg/kg	11557	95UCL	1.6E+05	--	7E-02	--
24609 NEPTUNE AVE	Xylenes, Total	µg/kg	12604	95UCL	4.7E+05	--	3E-02	--
24609 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	576.6	95UCL	7.5E+04	--	8E-03	--
24609 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	2.191	95UCL	7.7E+04	--	3E-05	--
24609 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.442	95UCL	1.9E+05	2.7E+03	7E-06	5E-09
24609 PANAMA AVE	2-Methylnaphthalene	mg/kg	3.878	95UCL	1.1E+04	--	4E-04	--
24609 PANAMA AVE	Benzene	µg/kg	67.13	95UCL	6.9E+04	2.2E+03	1E-03	3E-07
24609 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	3.2E+03	6.7E+00	1E-04	5E-07
24609 PANAMA AVE	Ethylbenzene	µg/kg	159	95UCL	4.5E+06	5.1E+04	4E-05	3E-08
24609 PANAMA AVE	Naphthalene	mg/kg	1.456	95UCL	1.4E+02	3.9E+01	1E-02	4E-07
24609 PANAMA AVE	Pyrene	mg/kg	1.415	95UCL	6.7E+04	--	2E-05	--
24609 PANAMA AVE	Toluene	µg/kg	0.455	95UCL	1.6E+07	--	3E-08	--
24609 PANAMA AVE	TPH as Diesel	mg/kg	2131	95UCL	1.9E+03	--	1E+00	--
24609 PANAMA AVE	TPH as Gasoline	mg/kg	114.9	95UCL	8.6E+02	--	1E-01	--
24609 PANAMA AVE	TPH as Motor Oil	mg/kg	3021	95UCL	1.6E+05	--	2E-02	--
24609 PANAMA AVE	Xylenes, Total	µg/kg	42.68	95UCL	4.7E+05	--	9E-05	--
24609 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.53	Max	7.5E+04	--	7E-06	--
24609 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.084	Max	7.7E+04	--	1E-06	--
24609 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.00245	95UCL	1.9E+05	2.7E+03	1E-08	9E-12
24609 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00351	95UCL	1.1E+04	--	3E-07	--
24609 RAVENNA AVE	Benzene	µg/kg	0.201	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24609 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	6.3E+04	6.4E+03	3E-06	3E-10
24609 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	3.2E+03	6.7E+00	9E-05	4E-07
24609 RAVENNA AVE	Naphthalene	mg/kg	0.00271	95UCL	1.4E+02	3.9E+01	2E-05	7E-10
24609 RAVENNA AVE	Pyrene	mg/kg	0.0178	95UCL	6.7E+04	--	3E-07	--
24609 RAVENNA AVE	Toluene	µg/kg	0.237	95UCL	1.6E+07	--	1E-08	--
24609 RAVENNA AVE	TPH as Diesel	mg/kg	800	Max	1.9E+03	--	4E-01	--
24609 RAVENNA AVE	TPH as Gasoline	mg/kg	0.0672	95UCL	8.6E+02	--	8E-05	--
24609 RAVENNA AVE	TPH as Motor Oil	mg/kg	2000	Max	1.6E+05	--	1E-02	--
24609 RAVENNA AVE	Xylenes, Total	µg/kg	0.411	95UCL	4.7E+05	--	9E-07	--
24612 MARBELLA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.36	Max	8.3E+05	5.7E+03	4E-07	6E-10
24612 MARBELLA AVE	1,2,3-Trichloropropane	µg/kg	0.48	Max	2.0E+03	7.2E+03	3E-04	7E-10
24612 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	3094	95UCL	7.5E+04	--	4E-02	--
24612 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	313.2	95UCL	7.7E+04	--	4E-03	--

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24612 MARBELLA AVE	1-Methylnaphthalene	mg/kg	10.23	95UCL	1.9E+05	2.7E+03	5E-05	4E-08
24612 MARBELLA AVE	2-Methylnaphthalene	mg/kg	15.37	95UCL	1.1E+04	--	1E-03	--
24612 MARBELLA AVE	Benzene	µg/kg	918.5	95UCL	6.9E+04	2.2E+03	1E-02	4E-06
24612 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.617	95UCL	6.3E+04	6.4E+03	1E-05	1E-09
24612 MARBELLA AVE	Bromomethane	µg/kg	510	Max	7.8E+03	--	7E-02	--
24612 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	3.2E+03	6.7E+00	8E-05	4E-07
24612 MARBELLA AVE	Cobalt	mg/kg	10.77	95UCL	2.0E+02	1.1E+02	5E-02	1E-06
24612 MARBELLA AVE	Ethylbenzene	µg/kg	2200	95UCL	4.5E+06	5.1E+04	5E-04	4E-07
24612 MARBELLA AVE	Naphthalene	mg/kg	6.526	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24612 MARBELLA AVE	Pyrene	mg/kg	2.292	95UCL	6.7E+04	--	3E-05	--
24612 MARBELLA AVE	Toluene	µg/kg	7.089	95UCL	1.6E+07	--	4E-07	--
24612 MARBELLA AVE	TPH as Diesel	mg/kg	7375	95UCL	1.9E+03	--	4E+00	--
24612 MARBELLA AVE	TPH as Gasoline	mg/kg	612.3	95UCL	8.6E+02	--	7E-01	--
24612 MARBELLA AVE	TPH as Motor Oil	mg/kg	7147	95UCL	1.6E+05	--	5E-02	--
24612 MARBELLA AVE	Xylenes, Total	µg/kg	943.7	95UCL	4.7E+05	--	2E-03	--
24612 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	2445	95UCL	7.5E+04	--	3E-02	--
24612 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	583.9	95UCL	7.7E+04	--	8E-03	--
24612 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	14.31	95UCL	1.9E+05	2.7E+03	7E-05	5E-08
24612 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	20.15	95UCL	1.1E+04	--	2E-03	--
24612 NEPTUNE AVE	Benzene	µg/kg	416	95UCL	6.9E+04	2.2E+03	6E-03	2E-06
24612 NEPTUNE AVE	Benzo (a) Anthracene	mg/kg	0.715	95UCL	--	2.6E+02	--	3E-08
24612 NEPTUNE AVE	Benzo (a) Pyrene	mg/kg	0.239	95UCL	--	2.6E+01	--	9E-08
24612 NEPTUNE AVE	Benzo (b) Fluoranthene	mg/kg	0.0477	95UCL	--	2.6E+02	--	2E-09
24612 NEPTUNE AVE	Benzo (k) Fluoranthene	mg/kg	0.00849	95UCL	--	2.6E+02	--	3E-10
24612 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.23	Max	3.2E+03	6.7E+00	7E-05	3E-07
24612 NEPTUNE AVE	Chrysene	mg/kg	1.358	95UCL	--	2.6E+03	--	5E-09
24612 NEPTUNE AVE	Dibenz (a,h) Anthracene	mg/kg	0.004	Max	--	1.9E+01	--	2E-09
24612 NEPTUNE AVE	Ethylbenzene	µg/kg	3231	95UCL	4.5E+06	5.1E+04	7E-04	6E-07
24612 NEPTUNE AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.00565	95UCL	--	2.6E+02	--	2E-10
24612 NEPTUNE AVE	Naphthalene	mg/kg	8.47	95UCL	1.4E+02	3.9E+01	6E-02	2E-06
24612 NEPTUNE AVE	Pyrene	mg/kg	3.863	95UCL	6.7E+04	--	6E-05	--
24612 NEPTUNE AVE	Toluene	µg/kg	46.16	95UCL	1.6E+07	--	3E-06	--
24612 NEPTUNE AVE	TPH as Diesel	mg/kg	8815	95UCL	1.9E+03	--	5E+00	--
24612 NEPTUNE AVE	TPH as Gasoline	mg/kg	731.8	95UCL	8.6E+02	--	9E-01	--
24612 NEPTUNE AVE	TPH as Motor Oil	mg/kg	10300	95UCL	1.6E+05	--	6E-02	--
24612 NEPTUNE AVE	Xylenes, Total	µg/kg	1051	95UCL	4.7E+05	--	2E-03	--
24612 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	28.12	95UCL	7.5E+04	--	4E-04	--
24612 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	9.327	95UCL	7.7E+04	--	1E-04	--
24612 PANAMA AVE	1-Methylnaphthalene	mg/kg	2.059	95UCL	1.9E+05	2.7E+03	1E-05	8E-09
24612 PANAMA AVE	2-Methylnaphthalene	mg/kg	4.509	95UCL	1.1E+04	--	4E-04	--
24612 PANAMA AVE	Benzene	µg/kg	4.887	95UCL	6.9E+04	2.2E+03	7E-05	2E-08
24612 PANAMA AVE	Ethylbenzene	µg/kg	251.7	95UCL	4.5E+06	5.1E+04	6E-05	5E-08
24612 PANAMA AVE	Naphthalene	mg/kg	1.321	95UCL	1.4E+02	3.9E+01	9E-03	3E-07
24612 PANAMA AVE	Pyrene	mg/kg	3.554	95UCL	6.7E+04	--	5E-05	--
24612 PANAMA AVE	Toluene	µg/kg	0.878	95UCL	1.6E+07	--	5E-08	--
24612 PANAMA AVE	TPH as Diesel	mg/kg	1219	95UCL	1.9E+03	--	6E-01	--
24612 PANAMA AVE	TPH as Gasoline	mg/kg	97.52	95UCL	8.6E+02	--	1E-01	--
24612 PANAMA AVE	TPH as Motor Oil	mg/kg	1788	95UCL	1.6E+05	--	1E-02	--
24612 PANAMA AVE	Xylenes, Total	µg/kg	15.45	95UCL	4.7E+05	--	3E-05	--
24612 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	29.27	95UCL	7.5E+04	--	4E-04	--
24612 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	7.661	95UCL	7.7E+04	--	1E-04	--
24612 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.13	Max	8.7E+06	2.8E+04	2E-08	5E-11
24612 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.671	95UCL	1.9E+05	2.7E+03	4E-06	3E-09
24612 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.858	95UCL	1.1E+04	--	8E-05	--
24612 RAVENNA AVE	Benzene	µg/kg	2.513	95UCL	6.9E+04	2.2E+03	4E-05	1E-08
24612 RAVENNA AVE	Bromomethane	µg/kg	2	Max	7.8E+03	--	3E-04	--
24612 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.27	Max	3.2E+03	6.7E+00	9E-05	4E-07
24612 RAVENNA AVE	Ethylbenzene	µg/kg	21.52	95UCL	4.5E+06	5.1E+04	5E-06	4E-09
24612 RAVENNA AVE	Methylene Chloride	µg/kg	6.2	Max	1.2E+06	5.9E+04	5E-06	1E-09
24612 RAVENNA AVE	Naphthalene	mg/kg	0.139	95UCL	1.4E+02	3.9E+01	1E-03	4E-08
24612 RAVENNA AVE	Pyrene	mg/kg	0.392	95UCL	6.7E+04	--	6E-06	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24612 RAVENNA AVE	Toluene	µg/kg	0.388	95UCL	1.6E+07	--	2E-08	--
24612 RAVENNA AVE	TPH as Diesel	mg/kg	2302	95UCL	1.9E+03	--	1E+00	--
24612 RAVENNA AVE	TPH as Gasoline	mg/kg	14	95UCL	8.6E+02	--	2E-02	--
24612 RAVENNA AVE	TPH as Motor Oil	mg/kg	6250	95UCL	1.6E+05	--	4E-02	--
24612 RAVENNA AVE	Xylenes, Total	µg/kg	12.73	95UCL	4.7E+05	--	3E-05	--
24613 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2.1	Max	7.5E+04	--	3E-05	--
24613 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.51	Max	7.7E+04	--	7E-06	--
24613 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.009	Max	1.9E+05	2.7E+03	5E-08	3E-11
24613 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0018	95UCL	1.1E+04	--	2E-07	--
24613 MARBELLA AVE	Benzene	µg/kg	0.849	95UCL	6.9E+04	2.2E+03	1E-05	4E-09
24613 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.48	Max	6.3E+04	6.4E+03	8E-06	8E-10
24613 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.3	Max	3.2E+03	6.7E+00	1E-04	5E-07
24613 MARBELLA AVE	Cobalt	mg/kg	12.38	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24613 MARBELLA AVE	Ethylbenzene	µg/kg	0.99	Max	4.5E+06	5.1E+04	2E-07	2E-10
24613 MARBELLA AVE	Naphthalene	mg/kg	0.00121	95UCL	1.4E+02	3.9E+01	9E-06	3E-10
24613 MARBELLA AVE	Pyrene	mg/kg	0.0238	95UCL	6.7E+04	--	4E-07	--
24613 MARBELLA AVE	Toluene	µg/kg	0.536	95UCL	1.6E+07	--	3E-08	--
24613 MARBELLA AVE	TPH as Diesel	mg/kg	27.71	95UCL	1.9E+03	--	2E-02	--
24613 MARBELLA AVE	TPH as Gasoline	mg/kg	1.547	95UCL	8.6E+02	--	2E-03	--
24613 MARBELLA AVE	TPH as Motor Oil	mg/kg	68.17	95UCL	1.6E+05	--	4E-04	--
24613 MARBELLA AVE	Vanadium	mg/kg	43.91	95UCL	3.3E+03	--	1E-02	--
24613 MARBELLA AVE	Xylenes, Total	µg/kg	6.3	Max	4.7E+05	--	1E-05	--
24613 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	3222	95UCL	7.5E+04	--	4E-02	--
24613 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	678.9	95UCL	7.7E+04	--	9E-03	--
24613 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	21.12	95UCL	1.9E+05	2.7E+03	1E-04	8E-08
24613 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	33.31	95UCL	1.1E+04	--	3E-03	--
24613 NEPTUNE AVE	Benzene	µg/kg	1141	95UCL	6.9E+04	2.2E+03	2E-02	5E-06
24613 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.75	Max	6.3E+04	6.4E+03	1E-05	1E-09
24613 NEPTUNE AVE	Bromomethane	µg/kg	320	Max	7.8E+03	--	4E-02	--
24613 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	2.8	Max	3.2E+03	6.7E+00	9E-04	4E-06
24613 NEPTUNE AVE	Ethylbenzene	µg/kg	1644	95UCL	4.5E+06	5.1E+04	4E-04	3E-07
24613 NEPTUNE AVE	Naphthalene	mg/kg	11.35	95UCL	1.4E+02	3.9E+01	8E-02	3E-06
24613 NEPTUNE AVE	Pyrene	mg/kg	7.22	95UCL	6.7E+04	--	1E-04	--
24613 NEPTUNE AVE	Toluene	µg/kg	49	95UCL	1.6E+07	--	3E-06	--
24613 NEPTUNE AVE	TPH as Diesel	mg/kg	7819	95UCL	1.9E+03	--	4E+00	--
24613 NEPTUNE AVE	TPH as Gasoline	mg/kg	596	95UCL	8.6E+02	--	7E-01	--
24613 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7859	95UCL	1.6E+05	--	5E-02	--
24613 NEPTUNE AVE	Xylenes, Total	µg/kg	2057	95UCL	4.7E+05	--	4E-03	--
24613 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	7.2	Max	2.0E+03	7.2E+03	4E-03	1E-08
24613 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	734.3	95UCL	7.5E+04	--	1E-02	--
24613 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	106.9	95UCL	7.7E+04	--	1E-03	--
24613 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.19	Max	8.7E+06	2.8E+04	2E-08	7E-11
24613 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.784	95UCL	1.9E+05	2.7E+03	9E-06	7E-09
24613 PANAMA AVE	2-Methylnaphthalene	mg/kg	3.636	95UCL	1.1E+04	--	3E-04	--
24613 PANAMA AVE	Benzene	µg/kg	66.51	95UCL	6.9E+04	2.2E+03	1E-03	3E-07
24613 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.36	Max	6.3E+04	6.4E+03	6E-06	6E-10
24613 PANAMA AVE	Bromomethane	µg/kg	3.1	Max	7.8E+03	--	4E-04	--
24613 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.4	Max	3.2E+03	6.7E+00	1E-04	6E-07
24613 PANAMA AVE	Ethylbenzene	µg/kg	218	95UCL	4.5E+06	5.1E+04	5E-05	4E-08
24613 PANAMA AVE	Naphthalene	mg/kg	1.278	95UCL	1.4E+02	3.9E+01	9E-03	3E-07
24613 PANAMA AVE	Pyrene	mg/kg	7.063	95UCL	6.7E+04	--	1E-04	--
24613 PANAMA AVE	Toluene	µg/kg	13.48	95UCL	1.6E+07	--	8E-07	--
24613 PANAMA AVE	TPH as Diesel	mg/kg	5447	95UCL	1.9E+03	--	3E+00	--
24613 PANAMA AVE	TPH as Gasoline	mg/kg	72.51	95UCL	8.6E+02	--	8E-02	--
24613 PANAMA AVE	TPH as Motor Oil	mg/kg	9469	95UCL	1.6E+05	--	6E-02	--
24613 PANAMA AVE	Trichloroethene	µg/kg	0.15	Max	5.5E+03	1.9E+04	3E-05	8E-11
24613 PANAMA AVE	Vinyl Chloride	µg/kg	0.23	Max	8.7E+04	3.1E+02	3E-06	7E-09
24613 PANAMA AVE	Xylenes, Total	µg/kg	442.8	95UCL	4.7E+05	--	9E-04	--
24613 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	3636	95UCL	7.5E+04	--	5E-02	--
24613 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	724.1	95UCL	7.7E+04	--	9E-03	--
24613 RAVENNA AVE	1-Methylnaphthalene	mg/kg	2.888	95UCL	1.9E+05	2.7E+03	2E-05	1E-08

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24613 RAVENNA AVE	2-Methylnaphthalene	mg/kg	7.468	95UCL	1.1E+04	--	7E-04	--
24613 RAVENNA AVE	Benzene	µg/kg	9.217	95UCL	6.9E+04	2.2E+03	1E-04	4E-08
24613 RAVENNA AVE	Bromomethane	µg/kg	1.5	Max	7.8E+03	--	2E-04	--
24613 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.155	95UCL	3.2E+03	6.7E+00	5E-05	2E-07
24613 RAVENNA AVE	Ethylbenzene	µg/kg	228.5	95UCL	4.5E+06	5.1E+04	5E-05	5E-08
24613 RAVENNA AVE	Naphthalene	mg/kg	3.611	95UCL	1.4E+02	3.9E+01	3E-02	9E-07
24613 RAVENNA AVE	Pyrene	mg/kg	0.237	95UCL	6.7E+04	--	4E-06	--
24613 RAVENNA AVE	Toluene	µg/kg	14.34	95UCL	1.6E+07	--	9E-07	--
24613 RAVENNA AVE	TPH as Diesel	mg/kg	2388	95UCL	1.9E+03	--	1E+00	--
24613 RAVENNA AVE	TPH as Gasoline	mg/kg	252.4	95UCL	8.6E+02	--	3E-01	--
24613 RAVENNA AVE	TPH as Motor Oil	mg/kg	1492	95UCL	1.6E+05	--	9E-03	--
24613 RAVENNA AVE	Xylenes, Total	µg/kg	1701	95UCL	4.7E+05	--	4E-03	--
24616 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	11357	95UCL	7.5E+04	--	2E-01	--
24616 MARBELLA AVE	1,2-Dichloropropane	µg/kg	0.31	Max	1.2E+04	8.5E+03	3E-05	4E-10
24616 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	1551	95UCL	7.7E+04	--	2E-02	--
24616 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.186	95UCL	8.7E+06	2.8E+04	2E-08	7E-11
24616 MARBELLA AVE	1-Methylnaphthalene	mg/kg	37.75	95UCL	1.9E+05	2.7E+03	2E-04	1E-07
24616 MARBELLA AVE	2-Methylnaphthalene	mg/kg	55.46	95UCL	1.1E+04	--	5E-03	--
24616 MARBELLA AVE	Benzene	µg/kg	2494	95UCL	6.9E+04	2.2E+03	4E-02	1E-05
24616 MARBELLA AVE	Benzo (a) Anthracene	mg/kg	1.232	95UCL	--	2.6E+02	--	5E-08
24616 MARBELLA AVE	Benzo (a) Pyrene	mg/kg	0.66	95UCL	--	2.6E+01	--	3E-07
24616 MARBELLA AVE	Benzo (b) Fluoranthene	mg/kg	0.0793	95UCL	--	2.6E+02	--	3E-09
24616 MARBELLA AVE	Benzo (k) Fluoranthene	mg/kg	0.0241	95UCL	--	2.6E+02	--	9E-10
24616 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.24	Max	6.3E+04	6.4E+03	4E-06	4E-10
24616 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.88	Max	3.2E+03	6.7E+00	3E-04	1E-06
24616 MARBELLA AVE	Chrysene	mg/kg	2.64	95UCL	--	2.6E+03	--	1E-08
24616 MARBELLA AVE	Cobalt	mg/kg	9.121	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24616 MARBELLA AVE	Dibenz (a,h) Anthracene	mg/kg	0.0131	95UCL	--	1.9E+01	--	7E-09
24616 MARBELLA AVE	Ethylbenzene	µg/kg	2972	95UCL	4.5E+06	5.1E+04	7E-04	6E-07
24616 MARBELLA AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.0243	95UCL	--	2.6E+02	--	9E-10
24616 MARBELLA AVE	Naphthalene	mg/kg	20.74	95UCL	1.4E+02	3.9E+01	2E-01	5E-06
24616 MARBELLA AVE	Pyrene	mg/kg	6.406	95UCL	6.7E+04	--	1E-04	--
24616 MARBELLA AVE	Toluene	µg/kg	154.3	95UCL	1.6E+07	--	9E-06	--
24616 MARBELLA AVE	TPH as Diesel	mg/kg	16937	95UCL	1.9E+03	--	9E+00	--
24616 MARBELLA AVE	TPH as Gasoline	mg/kg	1212	95UCL	8.6E+02	--	1E+00	--
24616 MARBELLA AVE	TPH as Motor Oil	mg/kg	16975	95UCL	1.6E+05	--	1E-01	--
24616 MARBELLA AVE	Trichloroethene	µg/kg	29	Max	5.5E+03	1.9E+04	5E-03	2E-08
24616 MARBELLA AVE	Vinyl Chloride	µg/kg	49	Max	8.7E+04	3.1E+02	6E-04	2E-06
24616 MARBELLA AVE	Xylenes, Total	µg/kg	5109	95UCL	4.7E+05	--	1E-02	--
24617 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0019	Max	1.9E+05	2.7E+03	1E-08	7E-12
24617 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00158	95UCL	1.1E+04	--	1E-07	--
24617 MARBELLA AVE	Benzene	µg/kg	0.289	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24617 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.31	Max	3.2E+03	6.7E+00	1E-04	5E-07
24617 MARBELLA AVE	Cobalt	mg/kg	12.95	95UCL	2.0E+02	1.1E+02	7E-02	1E-06
24617 MARBELLA AVE	Naphthalene	mg/kg	0.0015	Max	1.4E+02	3.9E+01	1E-05	4E-10
24617 MARBELLA AVE	Pyrene	mg/kg	0.00349	95UCL	6.7E+04	--	5E-08	--
24617 MARBELLA AVE	Thallium	mg/kg	0.604	95UCL	7.7E+01	--	8E-03	--
24617 MARBELLA AVE	Toluene	µg/kg	0.319	95UCL	1.6E+07	--	2E-08	--
24617 MARBELLA AVE	TPH as Diesel	mg/kg	13.2	95UCL	1.9E+03	--	7E-03	--
24617 MARBELLA AVE	TPH as Gasoline	mg/kg	0.051	Max	8.6E+02	--	6E-05	--
24617 MARBELLA AVE	TPH as Motor Oil	mg/kg	56.1	95UCL	1.6E+05	--	4E-04	--
24617 MARBELLA AVE	Vanadium	mg/kg	48.21	95UCL	3.3E+03	--	1E-02	--
24617 MARBELLA AVE	Xylenes, Total	µg/kg	0.77	Max	4.7E+05	--	2E-06	--
24618 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	966.3	95UCL	7.5E+04	--	1E-02	--
24618 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	37.07	95UCL	7.7E+04	--	5E-04	--
24618 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	16.45	95UCL	1.9E+05	2.7E+03	9E-05	6E-08
24618 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	24.36	95UCL	1.1E+04	--	2E-03	--
24618 NEPTUNE AVE	Benzene	µg/kg	192.5	95UCL	6.9E+04	2.2E+03	3E-03	9E-07
24618 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	6.3E+04	6.4E+03	6E-06	6E-10
24618 NEPTUNE AVE	Bromomethane	µg/kg	1.9	Max	7.8E+03	--	2E-04	--
24618 NEPTUNE AVE	Ethylbenzene	µg/kg	424	95UCL	4.5E+06	5.1E+04	9E-05	8E-08

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24618 NEPTUNE AVE	Naphthalene	mg/kg	8.077	95UCL	1.4E+02	3.9E+01	6E-02	2E-06
24618 NEPTUNE AVE	Pyrene	mg/kg	1.625	95UCL	6.7E+04	--	2E-05	--
24618 NEPTUNE AVE	Tetrachloroethene	µg/kg	0.2	Max	8.6E+04	1.0E+04	2E-06	2E-10
24618 NEPTUNE AVE	Toluene	µg/kg	1.706	95UCL	1.6E+07	--	1E-07	--
24618 NEPTUNE AVE	TPH as Diesel	mg/kg	5404	95UCL	1.9E+03	--	3E+00	--
24618 NEPTUNE AVE	TPH as Gasoline	mg/kg	118.8	95UCL	8.6E+02	--	1E-01	--
24618 NEPTUNE AVE	TPH as Motor Oil	mg/kg	4956	95UCL	1.6E+05	--	3E-02	--
24618 NEPTUNE AVE	Xylenes, Total	µg/kg	961.6	95UCL	4.7E+05	--	2E-03	--
24618 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	189.9	95UCL	7.5E+04	--	3E-03	--
24618 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	28.98	95UCL	7.7E+04	--	4E-04	--
24618 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.188	95UCL	8.7E+06	2.8E+04	2E-08	7E-11
24618 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.73	95UCL	1.9E+05	2.7E+03	9E-06	7E-09
24618 PANAMA AVE	2-Methylnaphthalene	mg/kg	3.77	95UCL	1.1E+04	--	3E-04	--
24618 PANAMA AVE	Benzene	µg/kg	0.435	95UCL	6.9E+04	2.2E+03	6E-06	2E-09
24618 PANAMA AVE	Bromomethane	µg/kg	170	Max	7.8E+03	--	2E-02	--
24618 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.4	Max	3.2E+03	6.7E+00	1E-04	6E-07
24618 PANAMA AVE	Ethylbenzene	µg/kg	24.31	95UCL	4.5E+06	5.1E+04	5E-06	5E-09
24618 PANAMA AVE	Naphthalene	mg/kg	0.922	95UCL	1.4E+02	3.9E+01	7E-03	2E-07
24618 PANAMA AVE	Pyrene	mg/kg	2.05	95UCL	6.7E+04	--	3E-05	--
24618 PANAMA AVE	Toluene	µg/kg	6.61	95UCL	1.6E+07	--	4E-07	--
24618 PANAMA AVE	TPH as Diesel	mg/kg	3224	95UCL	1.9E+03	--	2E+00	--
24618 PANAMA AVE	TPH as Gasoline	mg/kg	59.32	95UCL	8.6E+02	--	7E-02	--
24618 PANAMA AVE	TPH as Motor Oil	mg/kg	4803	95UCL	1.6E+05	--	3E-02	--
24618 PANAMA AVE	Trichloroethene	µg/kg	0.42	Max	5.5E+03	1.9E+04	8E-05	2E-10
24618 PANAMA AVE	Xylenes, Total	µg/kg	47.96	95UCL	4.7E+05	--	1E-04	--
24618 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	290	Max	7.5E+04	--	4E-03	--
24618 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	84	Max	7.7E+04	--	1E-03	--
24618 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.663	95UCL	1.9E+05	2.7E+03	9E-06	6E-09
24618 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.358	95UCL	1.1E+04	--	1E-04	--
24618 RAVENNA AVE	Benzene	µg/kg	0.222	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
24618 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	3.2E+03	6.7E+00	1E-04	7E-07
24618 RAVENNA AVE	Naphthalene	mg/kg	0.3	95UCL	1.4E+02	3.9E+01	2E-03	8E-08
24618 RAVENNA AVE	Pyrene	mg/kg	0.289	95UCL	6.7E+04	--	4E-06	--
24618 RAVENNA AVE	Toluene	µg/kg	0.296	95UCL	1.6E+07	--	2E-08	--
24618 RAVENNA AVE	TPH as Diesel	mg/kg	724.8	95UCL	1.9E+03	--	4E-01	--
24618 RAVENNA AVE	TPH as Gasoline	mg/kg	11.4	95UCL	8.6E+02	--	1E-02	--
24618 RAVENNA AVE	TPH as Motor Oil	mg/kg	1070	95UCL	1.6E+05	--	7E-03	--
24618 RAVENNA AVE	Xylenes, Total	µg/kg	18	Max	4.7E+05	--	4E-05	--
24619 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1893	95UCL	7.5E+04	--	3E-02	--
24619 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	341.3	95UCL	7.7E+04	--	4E-03	--
24619 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.14	Max	8.7E+06	2.8E+04	2E-08	5E-11
24619 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	18.75	95UCL	1.9E+05	2.7E+03	1E-04	7E-08
24619 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	27.07	95UCL	1.1E+04	--	2E-03	--
24619 NEPTUNE AVE	Benzene	µg/kg	629.2	95UCL	6.9E+04	2.2E+03	9E-03	3E-06
24619 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.897	95UCL	6.3E+04	6.4E+03	1E-05	1E-09
24619 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.8	Max	3.2E+03	6.7E+00	3E-04	1E-06
24619 NEPTUNE AVE	Ethylbenzene	µg/kg	889.5	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24619 NEPTUNE AVE	Naphthalene	mg/kg	10.26	95UCL	1.4E+02	3.9E+01	7E-02	3E-06
24619 NEPTUNE AVE	Pyrene	mg/kg	2.792	95UCL	6.7E+04	--	4E-05	--
24619 NEPTUNE AVE	Toluene	µg/kg	31.67	95UCL	1.6E+07	--	2E-06	--
24619 NEPTUNE AVE	TPH as Diesel	mg/kg	9889	95UCL	1.9E+03	--	5E+00	--
24619 NEPTUNE AVE	TPH as Gasoline	mg/kg	444.6	95UCL	8.6E+02	--	5E-01	--
24619 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7534	95UCL	1.6E+05	--	5E-02	--
24619 NEPTUNE AVE	Xylenes, Total	µg/kg	773.6	95UCL	4.7E+05	--	2E-03	--
24619 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2132	95UCL	7.5E+04	--	3E-02	--
24619 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	291.7	95UCL	7.7E+04	--	4E-03	--
24619 PANAMA AVE	1-Methylnaphthalene	mg/kg	5.239	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24619 PANAMA AVE	2-Methylnaphthalene	mg/kg	8.029	95UCL	1.1E+04	--	7E-04	--
24619 PANAMA AVE	Benzene	µg/kg	270.8	95UCL	6.9E+04	2.2E+03	4E-03	1E-06
24619 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.65	Max	6.3E+04	6.4E+03	1E-05	1E-09
24619 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.23	Max	3.2E+03	6.7E+00	7E-05	3E-07

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24619 PANAMA AVE	Ethylbenzene	µg/kg	753.2	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24619 PANAMA AVE	Naphthalene	mg/kg	3.273	95UCL	1.4E+02	3.9E+01	2E-02	8E-07
24619 PANAMA AVE	Pyrene	mg/kg	1.006	95UCL	6.7E+04	--	2E-05	--
24619 PANAMA AVE	Toluene	µg/kg	0.243	95UCL	1.6E+07	--	2E-08	--
24619 PANAMA AVE	TPH as Diesel	mg/kg	3017	95UCL	1.9E+03	--	2E+00	--
24619 PANAMA AVE	TPH as Gasoline	mg/kg	251.2	95UCL	8.6E+02	--	3E-01	--
24619 PANAMA AVE	TPH as Motor Oil	mg/kg	3418	95UCL	1.6E+05	--	2E-02	--
24619 PANAMA AVE	Xylenes, Total	µg/kg	1061	95UCL	4.7E+05	--	2E-03	--
24619 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1334	95UCL	7.5E+04	--	2E-02	--
24619 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	2400	Max	7.7E+04	--	3E-02	--
24619 RAVENNA AVE	1-Methylnaphthalene	mg/kg	9.012	95UCL	1.9E+05	2.7E+03	5E-05	3E-08
24619 RAVENNA AVE	2-Methylnaphthalene	mg/kg	12.91	95UCL	1.1E+04	--	1E-03	--
24619 RAVENNA AVE	Benzene	µg/kg	284.8	95UCL	6.9E+04	2.2E+03	4E-03	1E-06
24619 RAVENNA AVE	Bromomethane	µg/kg	1.7	Max	7.8E+03	--	2E-04	--
24619 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.273	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24619 RAVENNA AVE	Ethylbenzene	µg/kg	557.2	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24619 RAVENNA AVE	Naphthalene	mg/kg	3.428	95UCL	1.4E+02	3.9E+01	2E-02	9E-07
24619 RAVENNA AVE	Pyrene	mg/kg	2.837	95UCL	6.7E+04	--	4E-05	--
24619 RAVENNA AVE	Tetrachloroethene	µg/kg	0.97	Max	8.6E+04	1.0E+04	1E-05	1E-09
24619 RAVENNA AVE	Toluene	µg/kg	233	95UCL	1.6E+07	--	1E-05	--
24619 RAVENNA AVE	TPH as Diesel	mg/kg	3874	95UCL	1.9E+03	--	2E+00	--
24619 RAVENNA AVE	TPH as Gasoline	mg/kg	229	95UCL	8.6E+02	--	3E-01	--
24619 RAVENNA AVE	TPH as Motor Oil	mg/kg	4092	95UCL	1.6E+05	--	3E-02	--
24619 RAVENNA AVE	Xylenes, Total	µg/kg	1328	95UCL	4.7E+05	--	3E-03	--
24622 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	3135	95UCL	7.5E+04	--	4E-02	--
24622 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	421.1	95UCL	7.7E+04	--	5E-03	--
24622 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.46	Max	8.7E+06	2.8E+04	5E-08	2E-10
24622 MARBELLA AVE	1-Methylnaphthalene	mg/kg	19.27	95UCL	1.9E+05	2.7E+03	1E-04	7E-08
24622 MARBELLA AVE	2-Methylnaphthalene	mg/kg	46.57	95UCL	1.1E+04	--	4E-03	--
24622 MARBELLA AVE	Benzene	µg/kg	280.8	95UCL	6.9E+04	2.2E+03	4E-03	1E-06
24622 MARBELLA AVE	Benzo (a) Anthracene	mg/kg	1.566	95UCL	--	2.6E+02	--	6E-08
24622 MARBELLA AVE	Benzo (a) Pyrene	mg/kg	0.766	95UCL	--	2.6E+01	--	3E-07
24622 MARBELLA AVE	Benzo (b) Fluoranthene	mg/kg	0.227	95UCL	--	2.6E+02	--	9E-09
24622 MARBELLA AVE	Benzo (k) Fluoranthene	mg/kg	0.0127	95UCL	--	2.6E+02	--	5E-10
24622 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.4	Max	6.3E+04	6.4E+03	6E-06	6E-10
24622 MARBELLA AVE	Bromomethane	µg/kg	310	Max	7.8E+03	--	4E-02	--
24622 MARBELLA AVE	Chrysene	mg/kg	2.471	95UCL	--	2.6E+03	--	1E-08
24622 MARBELLA AVE	Cobalt	mg/kg	9.844	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24622 MARBELLA AVE	Dibenz (a,h) Anthracene	mg/kg	0.072	Max	--	1.9E+01	--	4E-08
24622 MARBELLA AVE	Ethylbenzene	µg/kg	575.9	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24622 MARBELLA AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.00907	95UCL	--	2.6E+02	--	4E-10
24622 MARBELLA AVE	Naphthalene	mg/kg	15.79	95UCL	1.4E+02	3.9E+01	1E-01	4E-06
24622 MARBELLA AVE	Pyrene	mg/kg	5.807	95UCL	6.7E+04	--	9E-05	--
24622 MARBELLA AVE	Toluene	µg/kg	60.5	95UCL	1.6E+07	--	4E-06	--
24622 MARBELLA AVE	TPH as Diesel	mg/kg	8163	95UCL	1.9E+03	--	4E+00	--
24622 MARBELLA AVE	TPH as Gasoline	mg/kg	531.1	95UCL	8.6E+02	--	6E-01	--
24622 MARBELLA AVE	TPH as Motor Oil	mg/kg	8257	95UCL	1.6E+05	--	5E-02	--
24622 MARBELLA AVE	Vanadium	mg/kg	35.2	95UCL	3.3E+03	--	1E-02	--
24622 MARBELLA AVE	Xylenes, Total	µg/kg	1181	95UCL	4.7E+05	--	3E-03	--
24622 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	991.1	95UCL	7.5E+04	--	1E-02	--
24622 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	61.19	95UCL	7.7E+04	--	8E-04	--
24622 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	11.4	95UCL	1.9E+05	2.7E+03	6E-05	4E-08
24622 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	1.9	Max	6.3E+03	2.8E+02	3E-04	7E-08
24622 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	17.45	95UCL	1.1E+04	--	2E-03	--
24622 NEPTUNE AVE	Benzene	µg/kg	354.7	95UCL	6.9E+04	2.2E+03	5E-03	2E-06
24622 NEPTUNE AVE	Bromomethane	µg/kg	4.8	Max	7.8E+03	--	6E-04	--
24622 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.3	Max	3.2E+03	6.7E+00	1E-04	5E-07
24622 NEPTUNE AVE	Ethylbenzene	µg/kg	745.2	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24622 NEPTUNE AVE	Naphthalene	mg/kg	6.486	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24622 NEPTUNE AVE	Pyrene	mg/kg	1.654	95UCL	6.7E+04	--	3E-05	--
24622 NEPTUNE AVE	Toluene	µg/kg	7.426	95UCL	1.6E+07	--	5E-07	--

Appendix E
Detailed Risk Calculations

Table E-4
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Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24622 NEPTUNE AVE	TPH as Diesel	mg/kg	6578	95UCL	1.9E+03	--	4E+00	--
24622 NEPTUNE AVE	TPH as Gasoline	mg/kg	177.5	95UCL	8.6E+02	--	2E-01	--
24622 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7894	95UCL	1.6E+05	--	5E-02	--
24622 NEPTUNE AVE	Trichloroethene	µg/kg	20	Max	5.5E+03	1.9E+04	4E-03	1E-08
24622 NEPTUNE AVE	Vinyl Chloride	µg/kg	0.19	Max	8.7E+04	3.1E+02	2E-06	6E-09
24622 NEPTUNE AVE	Xylenes, Total	µg/kg	269.2	95UCL	4.7E+05	--	6E-04	--
24623 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	11000	Max	7.5E+04	--	2E-01	--
24623 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	280	Max	7.7E+04	--	4E-03	--
24623 MARBELLA AVE	1-Methylnaphthalene	mg/kg	4.2	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24623 MARBELLA AVE	2-Methylnaphthalene	mg/kg	6.743	95UCL	1.1E+04	--	6E-04	--
24623 MARBELLA AVE	Benzene	µg/kg	15.53	95UCL	6.9E+04	2.2E+03	2E-04	7E-08
24623 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.35	Max	3.2E+03	6.7E+00	1E-04	5E-07
24623 MARBELLA AVE	Cobalt	mg/kg	12.06	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24623 MARBELLA AVE	Ethylbenzene	µg/kg	4200	Max	4.5E+06	5.1E+04	9E-04	8E-07
24623 MARBELLA AVE	Naphthalene	mg/kg	4.204	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24623 MARBELLA AVE	Pyrene	mg/kg	0.058	95UCL	6.7E+04	--	9E-07	--
24623 MARBELLA AVE	Toluene	µg/kg	0.153	95UCL	1.6E+07	--	9E-09	--
24623 MARBELLA AVE	TPH as Diesel	mg/kg	3230	95UCL	1.9E+03	--	2E+00	--
24623 MARBELLA AVE	TPH as Gasoline	mg/kg	2200	Max	8.6E+02	--	3E+00	--
24623 MARBELLA AVE	TPH as Motor Oil	mg/kg	3101	95UCL	1.6E+05	--	2E-02	--
24623 MARBELLA AVE	Vanadium	mg/kg	44.48	95UCL	3.3E+03	--	1E-02	--
24623 MARBELLA AVE	Xylenes, Total	µg/kg	1200	Max	4.7E+05	--	3E-03	--
24623 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	751.1	95UCL	7.5E+04	--	1E-02	--
24623 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	128.4	95UCL	7.7E+04	--	2E-03	--
24623 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.16	Max	8.7E+06	2.8E+04	2E-08	6E-11
24623 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	22.29	95UCL	1.9E+05	2.7E+03	1E-04	8E-08
24623 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	55.47	95UCL	1.1E+04	--	5E-03	--
24623 NEPTUNE AVE	Benzene	µg/kg	302.8	95UCL	6.9E+04	2.2E+03	4E-03	1E-06
24623 NEPTUNE AVE	Benzo (a) Anthracene	mg/kg	1.426	95UCL	--	2.6E+02	--	6E-08
24623 NEPTUNE AVE	Benzo (a) Pyrene	mg/kg	0.844	95UCL	--	2.6E+01	--	3E-07
24623 NEPTUNE AVE	Benzo (b) Fluoranthene	mg/kg	0.0655	95UCL	--	2.6E+02	--	3E-09
24623 NEPTUNE AVE	Benzo (k) Fluoranthene	mg/kg	0.0137	95UCL	--	2.6E+02	--	5E-10
24623 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.36	Max	6.3E+04	6.4E+03	6E-06	6E-10
24623 NEPTUNE AVE	Bromodichloromethane	µg/kg	0.21	Max	4.9E+05	5.3E+03	4E-07	4E-10
24623 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.289	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24623 NEPTUNE AVE	Chrysene	mg/kg	2.494	95UCL	--	2.6E+03	--	1E-08
24623 NEPTUNE AVE	Dibenz (a,h) Anthracene	mg/kg	0.0129	95UCL	--	1.9E+01	--	7E-09
24623 NEPTUNE AVE	Ethylbenzene	µg/kg	735.3	95UCL	4.5E+06	5.1E+04	2E-04	1E-07
24623 NEPTUNE AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.0166	95UCL	--	2.6E+02	--	6E-10
24623 NEPTUNE AVE	Naphthalene	mg/kg	10.38	95UCL	1.4E+02	3.9E+01	7E-02	3E-06
24623 NEPTUNE AVE	Pyrene	mg/kg	6.868	95UCL	6.7E+04	--	1E-04	--
24623 NEPTUNE AVE	Toluene	µg/kg	19.51	95UCL	1.6E+07	--	1E-06	--
24623 NEPTUNE AVE	TPH as Diesel	mg/kg	6745	95UCL	1.9E+03	--	4E+00	--
24623 NEPTUNE AVE	TPH as Gasoline	mg/kg	455.1	95UCL	8.6E+02	--	5E-01	--
24623 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7105	95UCL	1.6E+05	--	4E-02	--
24623 NEPTUNE AVE	Trichloroethene	µg/kg	23	Max	5.5E+03	1.9E+04	4E-03	1E-08
24623 NEPTUNE AVE	Xylenes, Total	µg/kg	419.7	95UCL	4.7E+05	--	9E-04	--
24627 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	3042	95UCL	7.5E+04	--	4E-02	--
24627 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	746.7	95UCL	7.7E+04	--	1E-02	--
24627 MARBELLA AVE	1-Methylnaphthalene	mg/kg	12.39	95UCL	1.9E+05	2.7E+03	6E-05	5E-08
24627 MARBELLA AVE	2-Methylnaphthalene	mg/kg	20.13	95UCL	1.1E+04	--	2E-03	--
24627 MARBELLA AVE	Benzene	µg/kg	329.3	95UCL	6.9E+04	2.2E+03	5E-03	2E-06
24627 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.4	Max	3.2E+03	6.7E+00	1E-04	6E-07
24627 MARBELLA AVE	Cobalt	mg/kg	12.21	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24627 MARBELLA AVE	Ethylbenzene	µg/kg	1032	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24627 MARBELLA AVE	Naphthalene	mg/kg	7.727	95UCL	1.4E+02	3.9E+01	6E-02	2E-06
24627 MARBELLA AVE	Pyrene	mg/kg	0.695	95UCL	6.7E+04	--	1E-05	--
24627 MARBELLA AVE	Toluene	µg/kg	14.51	95UCL	1.6E+07	--	9E-07	--
24627 MARBELLA AVE	TPH as Diesel	mg/kg	6527	95UCL	1.9E+03	--	3E+00	--
24627 MARBELLA AVE	TPH as Gasoline	mg/kg	561.2	95UCL	8.6E+02	--	7E-01	--
24627 MARBELLA AVE	TPH as Motor Oil	mg/kg	4819	95UCL	1.6E+05	--	3E-02	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24627 MARBELLA AVE	Trichloroethene	µg/kg	20	Max	5.5E+03	1.9E+04	4E-03	1E-08
24627 MARBELLA AVE	Vanadium	mg/kg	43.03	95UCL	3.3E+03	--	1E-02	--
24627 MARBELLA AVE	Xylenes, Total	µg/kg	1458	95UCL	4.7E+05	--	3E-03	--
24628 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1252	95UCL	7.5E+04	--	2E-02	--
24628 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	258.8	95UCL	7.7E+04	--	3E-03	--
24628 MARBELLA AVE	1-Methylnaphthalene	mg/kg	8.198	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24628 MARBELLA AVE	2-Methylnaphthalene	mg/kg	13.65	95UCL	1.1E+04	--	1E-03	--
24628 MARBELLA AVE	Benzene	µg/kg	440	95UCL	6.9E+04	2.2E+03	6E-03	2E-06
24628 MARBELLA AVE	Bromodichloromethane	µg/kg	0.45	Max	4.9E+05	5.3E+03	9E-07	9E-10
24628 MARBELLA AVE	Bromomethane	µg/kg	92.44	95UCL	7.8E+03	--	1E-02	--
24628 MARBELLA AVE	Chromium, Hexavalent	mg/kg	1.5	Max	3.2E+03	6.7E+00	5E-04	2E-06
24628 MARBELLA AVE	Cobalt	mg/kg	9.959	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24628 MARBELLA AVE	Ethylbenzene	µg/kg	703.6	95UCL	4.5E+06	5.1E+04	2E-04	1E-07
24628 MARBELLA AVE	Methylene Chloride	µg/kg	2100	Max	1.2E+06	5.9E+04	2E-03	4E-07
24628 MARBELLA AVE	Naphthalene	mg/kg	6.617	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24628 MARBELLA AVE	Pyrene	mg/kg	0.932	95UCL	6.7E+04	--	1E-05	--
24628 MARBELLA AVE	Toluene	µg/kg	22.2	95UCL	1.6E+07	--	1E-06	--
24628 MARBELLA AVE	TPH as Diesel	mg/kg	7226	95UCL	1.9E+03	--	4E+00	--
24628 MARBELLA AVE	TPH as Gasoline	mg/kg	469.9	95UCL	8.6E+02	--	6E-01	--
24628 MARBELLA AVE	TPH as Motor Oil	mg/kg	10466	95UCL	1.6E+05	--	7E-02	--
24628 MARBELLA AVE	Vanadium	mg/kg	35.61	95UCL	3.3E+03	--	1E-02	--
24628 MARBELLA AVE	Xylenes, Total	µg/kg	1248	95UCL	4.7E+05	--	3E-03	--
24628 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	24.89	95UCL	7.5E+04	--	3E-04	--
24628 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	23	Max	7.7E+04	--	3E-04	--
24628 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	4.06	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24628 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	10.01	95UCL	1.1E+04	--	9E-04	--
24628 NEPTUNE AVE	Benzene	µg/kg	148.4	95UCL	6.9E+04	2.2E+03	2E-03	7E-07
24628 NEPTUNE AVE	Ethylbenzene	µg/kg	410.4	95UCL	4.5E+06	5.1E+04	9E-05	8E-08
24628 NEPTUNE AVE	Naphthalene	mg/kg	3.244	95UCL	1.4E+02	3.9E+01	2E-02	8E-07
24628 NEPTUNE AVE	Pyrene	mg/kg	1.294	95UCL	6.7E+04	--	2E-05	--
24628 NEPTUNE AVE	Toluene	µg/kg	0.329	95UCL	1.6E+07	--	2E-08	--
24628 NEPTUNE AVE	TPH as Diesel	mg/kg	6223	95UCL	1.9E+03	--	3E+00	--
24628 NEPTUNE AVE	TPH as Gasoline	mg/kg	163.9	95UCL	8.6E+02	--	2E-01	--
24628 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6429	95UCL	1.6E+05	--	4E-02	--
24628 NEPTUNE AVE	Xylenes, Total	µg/kg	49.62	95UCL	4.7E+05	--	1E-04	--
24629 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1614	95UCL	7.5E+04	--	2E-02	--
24629 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	295.6	95UCL	7.7E+04	--	4E-03	--
24629 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	7.984	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24629 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	3.1	Max	6.3E+03	2.8E+02	5E-04	1E-07
24629 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	18.24	95UCL	1.1E+04	--	2E-03	--
24629 NEPTUNE AVE	Benzene	µg/kg	501.2	95UCL	6.9E+04	2.2E+03	7E-03	2E-06
24629 NEPTUNE AVE	Bromomethane	µg/kg	3.7	Max	7.8E+03	--	5E-04	--
24629 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.24	Max	3.2E+03	6.7E+00	8E-05	4E-07
24629 NEPTUNE AVE	Ethylbenzene	µg/kg	1129	95UCL	4.5E+06	5.1E+04	3E-04	2E-07
24629 NEPTUNE AVE	Naphthalene	mg/kg	6.311	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24629 NEPTUNE AVE	Pyrene	mg/kg	2.314	95UCL	6.7E+04	--	4E-05	--
24629 NEPTUNE AVE	Toluene	µg/kg	13.89	95UCL	1.6E+07	--	9E-07	--
24629 NEPTUNE AVE	TPH as Diesel	mg/kg	6721	95UCL	1.9E+03	--	4E+00	--
24629 NEPTUNE AVE	TPH as Gasoline	mg/kg	473.7	95UCL	8.6E+02	--	6E-01	--
24629 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6367	95UCL	1.6E+05	--	4E-02	--
24629 NEPTUNE AVE	Trichloroethene	µg/kg	0.15	Max	5.5E+03	1.9E+04	3E-05	8E-11
24629 NEPTUNE AVE	Xylenes, Total	µg/kg	923	95UCL	4.7E+05	--	2E-03	--
24632 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1900	95UCL	7.5E+04	--	3E-02	--
24632 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	540	Max	7.7E+04	--	7E-03	--
24632 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	15.51	95UCL	1.9E+05	2.7E+03	8E-05	6E-08
24632 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	37.87	95UCL	1.1E+04	--	3E-03	--
24632 NEPTUNE AVE	Benzene	µg/kg	79.61	95UCL	6.9E+04	2.2E+03	1E-03	4E-07
24632 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.1	Max	3.2E+03	6.7E+00	3E-05	2E-07
24632 NEPTUNE AVE	Ethylbenzene	µg/kg	1043	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24632 NEPTUNE AVE	Naphthalene	mg/kg	7.925	95UCL	1.4E+02	3.9E+01	6E-02	2E-06
24632 NEPTUNE AVE	Pyrene	mg/kg	4.015	95UCL	6.7E+04	--	6E-05	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24632 NEPTUNE AVE	Toluene	µg/kg	10.68	95UCL	1.6E+07	--	7E-07	--
24632 NEPTUNE AVE	TPH as Diesel	mg/kg	5797	95UCL	1.9E+03	--	3E+00	--
24632 NEPTUNE AVE	TPH as Gasoline	mg/kg	157.2	95UCL	8.6E+02	--	2E-01	--
24632 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5133	95UCL	1.6E+05	--	3E-02	--
24632 NEPTUNE AVE	Xylenes, Total	µg/kg	575	95UCL	4.7E+05	--	1E-03	--
24633 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.017	Max	1.9E+05	2.7E+03	9E-08	6E-11
24633 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0334	95UCL	1.1E+04	--	3E-06	--
24633 MARBELLA AVE	Benzene	µg/kg	0.364	95UCL	6.9E+04	2.2E+03	5E-06	2E-09
24633 MARBELLA AVE	Cobalt	mg/kg	12.25	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
24633 MARBELLA AVE	Naphthalene	mg/kg	0.213	95UCL	1.4E+02	3.9E+01	2E-03	6E-08
24633 MARBELLA AVE	Pyrene	mg/kg	0.797	95UCL	6.7E+04	--	1E-05	--
24633 MARBELLA AVE	Toluene	µg/kg	0.89	Max	1.6E+07	--	5E-08	--
24633 MARBELLA AVE	TPH as Diesel	mg/kg	1809	95UCL	1.9E+03	--	1E+00	--
24633 MARBELLA AVE	TPH as Gasoline	mg/kg	0.0618	95UCL	8.6E+02	--	7E-05	--
24633 MARBELLA AVE	TPH as Motor Oil	mg/kg	6627	95UCL	1.6E+05	--	4E-02	--
24633 MARBELLA AVE	Xylenes, Total	µg/kg	0.29	Max	4.7E+05	--	6E-07	--
24700 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1395	95UCL	7.5E+04	--	2E-02	--
24700 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	176.9	95UCL	7.7E+04	--	2E-03	--
24700 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.639	95UCL	8.7E+06	2.8E+04	7E-08	2E-10
24700 MARBELLA AVE	1-Methylnaphthalene	mg/kg	7.279	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24700 MARBELLA AVE	2-Methylnaphthalene	mg/kg	17.46	95UCL	1.1E+04	--	2E-03	--
24700 MARBELLA AVE	Benzene	µg/kg	20.84	95UCL	6.9E+04	2.2E+03	3E-04	9E-08
24700 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.24	Max	6.3E+04	6.4E+03	4E-06	4E-10
24700 MARBELLA AVE	Bromomethane	µg/kg	280	Max	7.8E+03	--	4E-02	--
24700 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.25	Max	3.2E+03	6.7E+00	8E-05	4E-07
24700 MARBELLA AVE	Cobalt	mg/kg	9.143	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24700 MARBELLA AVE	Ethylbenzene	µg/kg	1291	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24700 MARBELLA AVE	Naphthalene	mg/kg	7.118	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24700 MARBELLA AVE	Pyrene	mg/kg	1.255	95UCL	6.7E+04	--	2E-05	--
24700 MARBELLA AVE	Toluene	µg/kg	1.526	95UCL	1.6E+07	--	9E-08	--
24700 MARBELLA AVE	TPH as Diesel	mg/kg	5984	95UCL	1.9E+03	--	3E+00	--
24700 MARBELLA AVE	TPH as Gasoline	mg/kg	416.5	95UCL	8.6E+02	--	5E-01	--
24700 MARBELLA AVE	TPH as Motor Oil	mg/kg	6277	95UCL	1.6E+05	--	4E-02	--
24700 MARBELLA AVE	Xylenes, Total	µg/kg	949	95UCL	4.7E+05	--	2E-03	--
24700 RAVENNA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.31	Max	8.3E+05	5.7E+03	4E-07	5E-10
24700 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	35.67	95UCL	7.5E+04	--	5E-04	--
24700 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	3.065	95UCL	7.7E+04	--	4E-05	--
24700 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.1	Max	1.9E+05	2.7E+03	6E-06	4E-09
24700 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.175	95UCL	1.1E+04	--	2E-05	--
24700 RAVENNA AVE	Benzene	µg/kg	0.28	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24700 RAVENNA AVE	Bromomethane	µg/kg	2	Max	7.8E+03	--	3E-04	--
24700 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.262	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24700 RAVENNA AVE	Ethylbenzene	µg/kg	9.648	95UCL	4.5E+06	5.1E+04	2E-06	2E-09
24700 RAVENNA AVE	Naphthalene	mg/kg	0.0437	95UCL	1.4E+02	3.9E+01	3E-04	1E-08
24700 RAVENNA AVE	Pyrene	mg/kg	0.0779	95UCL	6.7E+04	--	1E-06	--
24700 RAVENNA AVE	Toluene	µg/kg	0.257	95UCL	1.6E+07	--	2E-08	--
24700 RAVENNA AVE	TPH as Diesel	mg/kg	445.3	95UCL	1.9E+03	--	2E-01	--
24700 RAVENNA AVE	TPH as Gasoline	mg/kg	36.49	95UCL	8.6E+02	--	4E-02	--
24700 RAVENNA AVE	TPH as Motor Oil	mg/kg	1442	95UCL	1.6E+05	--	9E-03	--
24700 RAVENNA AVE	Xylenes, Total	µg/kg	0.532	95UCL	4.7E+05	--	1E-06	--
24702 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	2158	95UCL	7.5E+04	--	3E-02	--
24702 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	66.13	95UCL	7.7E+04	--	9E-04	--
24702 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.24	Max	8.7E+06	2.8E+04	3E-08	9E-11
24702 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	9.328	95UCL	1.9E+05	2.7E+03	5E-05	4E-08
24702 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	14.04	95UCL	1.1E+04	--	1E-03	--
24702 NEPTUNE AVE	Benzene	µg/kg	67.9	95UCL	6.9E+04	2.2E+03	1E-03	3E-07
24702 NEPTUNE AVE	Ethylbenzene	µg/kg	481.1	95UCL	4.5E+06	5.1E+04	1E-04	9E-08
24702 NEPTUNE AVE	Naphthalene	mg/kg	5.967	95UCL	1.4E+02	3.9E+01	4E-02	2E-06
24702 NEPTUNE AVE	Pyrene	mg/kg	2.719	95UCL	6.7E+04	--	4E-05	--
24702 NEPTUNE AVE	Toluene	µg/kg	11.42	95UCL	1.6E+07	--	7E-07	--
24702 NEPTUNE AVE	TPH as Diesel	mg/kg	5898	95UCL	1.9E+03	--	3E+00	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24702 NEPTUNE AVE	TPH as Gasoline	mg/kg	278	95UCL	8.6E+02	--	3E-01	--
24702 NEPTUNE AVE	TPH as Motor Oil	mg/kg	7050	95UCL	1.6E+05	--	4E-02	--
24702 NEPTUNE AVE	Trichloroethene	µg/kg	0.41	Max	5.5E+03	1.9E+04	8E-05	2E-10
24702 NEPTUNE AVE	Xylenes, Total	µg/kg	600	95UCL	4.7E+05	--	1E-03	--
24702 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	5950	95UCL	7.5E+04	--	8E-02	--
24702 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	303.1	95UCL	7.7E+04	--	4E-03	--
24702 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.23	Max	8.7E+06	2.8E+04	3E-08	8E-11
24702 PANAMA AVE	1-Methylnaphthalene	mg/kg	4.641	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24702 PANAMA AVE	2-Methylnaphthalene	mg/kg	10.65	95UCL	1.1E+04	--	1E-03	--
24702 PANAMA AVE	Benzene	µg/kg	610.1	95UCL	6.9E+04	2.2E+03	9E-03	3E-06
24702 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.3	Max	6.3E+04	6.4E+03	2E-05	2E-09
24702 PANAMA AVE	Bromomethane	µg/kg	3	Max	7.8E+03	--	4E-04	--
24702 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	3.2E+03	6.7E+00	1E-04	6E-07
24702 PANAMA AVE	Ethylbenzene	µg/kg	869.7	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24702 PANAMA AVE	Naphthalene	mg/kg	3.169	95UCL	1.4E+02	3.9E+01	2E-02	8E-07
24702 PANAMA AVE	Pyrene	mg/kg	2.975	95UCL	6.7E+04	--	5E-05	--
24702 PANAMA AVE	Toluene	µg/kg	25.72	95UCL	1.6E+07	--	2E-06	--
24702 PANAMA AVE	TPH as Diesel	mg/kg	5670	95UCL	1.9E+03	--	3E+00	--
24702 PANAMA AVE	TPH as Gasoline	mg/kg	516	95UCL	8.6E+02	--	6E-01	--
24702 PANAMA AVE	TPH as Motor Oil	mg/kg	6493	95UCL	1.6E+05	--	4E-02	--
24702 PANAMA AVE	Xylenes, Total	µg/kg	2211	95UCL	4.7E+05	--	5E-03	--
24703 MARBELLA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.132	95UCL	8.3E+05	5.7E+03	2E-07	2E-10
24703 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1.8	Max	7.5E+04	--	2E-05	--
24703 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.37	Max	7.7E+04	--	5E-06	--
24703 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0644	95UCL	1.9E+05	2.7E+03	3E-07	2E-10
24703 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0507	95UCL	1.1E+04	--	5E-06	--
24703 MARBELLA AVE	Benzene	µg/kg	0.191	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24703 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	5.4	Max	6.3E+04	6.4E+03	9E-05	8E-09
24703 MARBELLA AVE	Bromodichloromethane	µg/kg	0.17	Max	4.9E+05	5.3E+03	4E-07	3E-10
24703 MARBELLA AVE	Cobalt	mg/kg	10.66	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24703 MARBELLA AVE	Ethylbenzene	µg/kg	0.3	Max	4.5E+06	5.1E+04	7E-08	6E-11
24703 MARBELLA AVE	Naphthalene	mg/kg	0.0249	95UCL	1.4E+02	3.9E+01	2E-04	6E-09
24703 MARBELLA AVE	Pyrene	mg/kg	0.808	95UCL	6.7E+04	--	1E-05	--
24703 MARBELLA AVE	Tetrachloroethene	µg/kg	1.1	Max	8.6E+04	1.0E+04	1E-05	1E-09
24703 MARBELLA AVE	Toluene	µg/kg	0.202	95UCL	1.6E+07	--	1E-08	--
24703 MARBELLA AVE	TPH as Diesel	mg/kg	821.1	95UCL	1.9E+03	--	4E-01	--
24703 MARBELLA AVE	TPH as Gasoline	mg/kg	0.146	95UCL	8.6E+02	--	2E-04	--
24703 MARBELLA AVE	TPH as Motor Oil	mg/kg	1644	95UCL	1.6E+05	--	1E-02	--
24703 MARBELLA AVE	Trichloroethene	µg/kg	0.33	Max	5.5E+03	1.9E+04	6E-05	2E-10
24703 MARBELLA AVE	Xylenes, Total	µg/kg	1.7	Max	4.7E+05	--	4E-06	--
24703 NEPTUNE AVE	1,2,3-Trichloropropane	µg/kg	0.81	Max	2.0E+03	7.2E+03	4E-04	1E-09
24703 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	30.99	95UCL	7.5E+04	--	4E-04	--
24703 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	2.343	95UCL	7.7E+04	--	3E-05	--
24703 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	6.225	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24703 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	0.061	Max	6.3E+03	2.8E+02	1E-05	2E-09
24703 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	8.367	95UCL	1.1E+04	--	8E-04	--
24703 NEPTUNE AVE	Benzene	µg/kg	16.3	95UCL	6.9E+04	2.2E+03	2E-04	7E-08
24703 NEPTUNE AVE	Bromomethane	µg/kg	200	Max	7.8E+03	--	3E-02	--
24703 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.169	95UCL	3.2E+03	6.7E+00	5E-05	3E-07
24703 NEPTUNE AVE	Ethylbenzene	µg/kg	431.3	95UCL	4.5E+06	5.1E+04	1E-04	9E-08
24703 NEPTUNE AVE	Naphthalene	mg/kg	2.811	95UCL	1.4E+02	3.9E+01	2E-02	7E-07
24703 NEPTUNE AVE	Pyrene	mg/kg	1.565	95UCL	6.7E+04	--	2E-05	--
24703 NEPTUNE AVE	Toluene	µg/kg	2.873	95UCL	1.6E+07	--	2E-07	--
24703 NEPTUNE AVE	TPH as Diesel	mg/kg	4763	95UCL	1.9E+03	--	3E+00	--
24703 NEPTUNE AVE	TPH as Gasoline	mg/kg	290.4	95UCL	8.6E+02	--	3E-01	--
24703 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5202	95UCL	1.6E+05	--	3E-02	--
24703 NEPTUNE AVE	Xylenes, Total	µg/kg	10.51	95UCL	4.7E+05	--	2E-05	--
24703 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1950	95UCL	7.5E+04	--	3E-02	--
24703 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	312.4	95UCL	7.7E+04	--	4E-03	--
24703 RAVENNA AVE	1-Methylnaphthalene	mg/kg	21.92	95UCL	1.9E+05	2.7E+03	1E-04	8E-08
24703 RAVENNA AVE	2-Methylnaphthalene	mg/kg	34.34	95UCL	1.1E+04	--	3E-03	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24703 RAVENNA AVE	Benzene	µg/kg	409.9	95UCL	6.9E+04	2.2E+03	6E-03	2E-06
24703 RAVENNA AVE	Bromomethane	µg/kg	2.5	Max	7.8E+03	--	3E-04	--
24703 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.26	Max	3.2E+03	6.7E+00	8E-05	4E-07
24703 RAVENNA AVE	Ethylbenzene	µg/kg	1404	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24703 RAVENNA AVE	Naphthalene	mg/kg	14.17	95UCL	1.4E+02	3.9E+01	1E-01	4E-06
24703 RAVENNA AVE	Pyrene	mg/kg	2.846	95UCL	6.7E+04	--	4E-05	--
24703 RAVENNA AVE	Toluene	µg/kg	39.84	95UCL	1.6E+07	--	2E-06	--
24703 RAVENNA AVE	TPH as Diesel	mg/kg	6709	95UCL	1.9E+03	--	4E+00	--
24703 RAVENNA AVE	TPH as Gasoline	mg/kg	408.4	95UCL	8.6E+02	--	5E-01	--
24703 RAVENNA AVE	TPH as Motor Oil	mg/kg	6244	95UCL	1.6E+05	--	4E-02	--
24703 RAVENNA AVE	Xylenes, Total	µg/kg	1130	95UCL	4.7E+05	--	2E-03	--
24706 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	1026	95UCL	7.5E+04	--	1E-02	--
24706 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	275.8	95UCL	7.7E+04	--	4E-03	--
24706 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	16	Max	8.7E+06	2.8E+04	2E-06	6E-09
24706 MARBELLA AVE	1-Methylnaphthalene	mg/kg	14.98	95UCL	1.9E+05	2.7E+03	8E-05	6E-08
24706 MARBELLA AVE	2-Methylnaphthalene	mg/kg	23.53	95UCL	1.1E+04	--	2E-03	--
24706 MARBELLA AVE	Benzene	µg/kg	27.97	95UCL	6.9E+04	2.2E+03	4E-04	1E-07
24706 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.316	95UCL	6.3E+04	6.4E+03	5E-06	5E-10
24706 MARBELLA AVE	Cobalt	mg/kg	8.964	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24706 MARBELLA AVE	Ethylbenzene	µg/kg	2604	95UCL	4.5E+06	5.1E+04	6E-04	5E-07
24706 MARBELLA AVE	Naphthalene	mg/kg	8.768	95UCL	1.4E+02	3.9E+01	6E-02	2E-06
24706 MARBELLA AVE	Pyrene	mg/kg	2.143	95UCL	6.7E+04	--	3E-05	--
24706 MARBELLA AVE	Toluene	µg/kg	26.69	95UCL	1.6E+07	--	2E-06	--
24706 MARBELLA AVE	TPH as Diesel	mg/kg	7358	95UCL	1.9E+03	--	4E+00	--
24706 MARBELLA AVE	TPH as Gasoline	mg/kg	665.1	95UCL	8.6E+02	--	8E-01	--
24706 MARBELLA AVE	TPH as Motor Oil	mg/kg	6918	95UCL	1.6E+05	--	4E-02	--
24706 MARBELLA AVE	Xylenes, Total	µg/kg	862.1	95UCL	4.7E+05	--	2E-03	--
24706 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.296	95UCL	7.5E+04	--	4E-06	--
24706 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	9.9	Max	7.7E+04	--	1E-04	--
24706 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.014	Max	1.9E+05	2.7E+03	7E-08	5E-11
24706 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.0154	95UCL	1.1E+04	--	1E-06	--
24706 RAVENNA AVE	Benzene	µg/kg	0.304	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24706 RAVENNA AVE	Bromomethane	µg/kg	2	Max	7.8E+03	--	3E-04	--
24706 RAVENNA AVE	Ethylbenzene	µg/kg	0.588	95UCL	4.5E+06	5.1E+04	1E-07	1E-10
24706 RAVENNA AVE	Naphthalene	mg/kg	0.00654	95UCL	1.4E+02	3.9E+01	5E-05	2E-09
24706 RAVENNA AVE	Pyrene	mg/kg	0.861	95UCL	6.7E+04	--	1E-05	--
24706 RAVENNA AVE	Toluene	µg/kg	0.225	95UCL	1.6E+07	--	1E-08	--
24706 RAVENNA AVE	TPH as Diesel	mg/kg	1224	95UCL	1.9E+03	--	6E-01	--
24706 RAVENNA AVE	TPH as Gasoline	mg/kg	0.126	95UCL	8.6E+02	--	2E-04	--
24706 RAVENNA AVE	TPH as Motor Oil	mg/kg	2494	95UCL	1.6E+05	--	2E-02	--
24706 RAVENNA AVE	Xylenes, Total	µg/kg	3.55	95UCL	4.7E+05	--	8E-06	--
24707 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.337	95UCL	7.5E+04	--	5E-06	--
24707 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.123	95UCL	7.7E+04	--	2E-06	--
24707 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.25	Max	1.9E+05	2.7E+03	1E-06	9E-10
24707 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0078	95UCL	1.1E+04	--	7E-07	--
24707 MARBELLA AVE	Benzene	µg/kg	0.18	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24707 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.304	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24707 MARBELLA AVE	Cobalt	mg/kg	9.172	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24707 MARBELLA AVE	Ethylbenzene	µg/kg	2.375	95UCL	4.5E+06	5.1E+04	5E-07	5E-10
24707 MARBELLA AVE	Naphthalene	mg/kg	0.00369	95UCL	1.4E+02	3.9E+01	3E-05	1E-09
24707 MARBELLA AVE	Pyrene	mg/kg	0.126	95UCL	6.7E+04	--	2E-06	--
24707 MARBELLA AVE	Toluene	µg/kg	0.241	95UCL	1.6E+07	--	2E-08	--
24707 MARBELLA AVE	TPH as Diesel	mg/kg	171.3	95UCL	1.9E+03	--	9E-02	--
24707 MARBELLA AVE	TPH as Gasoline	mg/kg	0.19	Max	8.6E+02	--	2E-04	--
24707 MARBELLA AVE	TPH as Motor Oil	mg/kg	338.6	95UCL	1.6E+05	--	2E-03	--
24707 MARBELLA AVE	Xylenes, Total	µg/kg	3.651	95UCL	4.7E+05	--	8E-06	--
24708 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	28.72	95UCL	7.5E+04	--	4E-04	--
24708 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	2.278	95UCL	7.7E+04	--	3E-05	--
24708 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.57	Max	8.7E+06	2.8E+04	7E-08	2E-10
24708 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.207	95UCL	1.9E+05	2.7E+03	1E-06	8E-10
24708 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.266	95UCL	1.1E+04	--	2E-05	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24708 PANAMA AVE	Benzene	µg/kg	0.282	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24708 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	6.3E+04	6.4E+03	6E-06	6E-10
24708 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.458	95UCL	3.2E+03	6.7E+00	2E-04	7E-07
24708 PANAMA AVE	Ethylbenzene	µg/kg	11.17	95UCL	4.5E+06	5.1E+04	3E-06	2E-09
24708 PANAMA AVE	Naphthalene	mg/kg	0.156	95UCL	1.4E+02	3.9E+01	1E-03	4E-08
24708 PANAMA AVE	Pyrene	mg/kg	1.182	95UCL	6.7E+04	--	2E-05	--
24708 PANAMA AVE	Toluene	µg/kg	0.328	95UCL	1.6E+07	--	2E-08	--
24708 PANAMA AVE	TPH as Diesel	mg/kg	1895	95UCL	1.9E+03	--	1E+00	--
24708 PANAMA AVE	TPH as Gasoline	mg/kg	30.07	95UCL	8.6E+02	--	4E-02	--
24708 PANAMA AVE	TPH as Motor Oil	mg/kg	3314	95UCL	1.6E+05	--	2E-02	--
24708 PANAMA AVE	Trichloroethene	µg/kg	0.18	Max	5.5E+03	1.9E+04	3E-05	1E-10
24708 PANAMA AVE	Xylenes, Total	µg/kg	8.95	95UCL	4.7E+05	--	2E-05	--
24709 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	816.6	95UCL	7.5E+04	--	1E-02	--
24709 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	46.1	95UCL	7.7E+04	--	6E-04	--
24709 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	7.057	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24709 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	8.152	95UCL	1.1E+04	--	7E-04	--
24709 NEPTUNE AVE	Benzene	µg/kg	78.09	95UCL	6.9E+04	2.2E+03	1E-03	4E-07
24709 NEPTUNE AVE	Ethylbenzene	µg/kg	827.7	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24709 NEPTUNE AVE	Naphthalene	mg/kg	3.686	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24709 NEPTUNE AVE	Pyrene	mg/kg	2.063	95UCL	6.7E+04	--	3E-05	--
24709 NEPTUNE AVE	Toluene	µg/kg	6.055	95UCL	1.6E+07	--	4E-07	--
24709 NEPTUNE AVE	TPH as Diesel	mg/kg	6118	95UCL	1.9E+03	--	3E+00	--
24709 NEPTUNE AVE	TPH as Gasoline	mg/kg	301.6	95UCL	8.6E+02	--	4E-01	--
24709 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5245	95UCL	1.6E+05	--	3E-02	--
24709 NEPTUNE AVE	Xylenes, Total	µg/kg	216.3	95UCL	4.7E+05	--	5E-04	--
24709 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2787	95UCL	7.5E+04	--	4E-02	--
24709 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	364.2	95UCL	7.7E+04	--	5E-03	--
24709 PANAMA AVE	1-Methylnaphthalene	mg/kg	4.054	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24709 PANAMA AVE	2-Methylnaphthalene	mg/kg	4.876	95UCL	1.1E+04	--	4E-04	--
24709 PANAMA AVE	Benzene	µg/kg	115	95UCL	6.9E+04	2.2E+03	2E-03	5E-07
24709 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.202	95UCL	3.2E+03	6.7E+00	6E-05	3E-07
24709 PANAMA AVE	Ethylbenzene	µg/kg	772.1	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24709 PANAMA AVE	Methylene Chloride	µg/kg	35	Max	1.2E+06	5.9E+04	3E-05	6E-09
24709 PANAMA AVE	Naphthalene	mg/kg	1.402	95UCL	1.4E+02	3.9E+01	1E-02	4E-07
24709 PANAMA AVE	Pyrene	mg/kg	4.407	95UCL	6.7E+04	--	7E-05	--
24709 PANAMA AVE	Toluene	µg/kg	32.87	95UCL	1.6E+07	--	2E-06	--
24709 PANAMA AVE	TPH as Diesel	mg/kg	7540	95UCL	1.9E+03	--	4E+00	--
24709 PANAMA AVE	TPH as Gasoline	mg/kg	288.6	95UCL	8.6E+02	--	3E-01	--
24709 PANAMA AVE	TPH as Motor Oil	mg/kg	11807	95UCL	1.6E+05	--	7E-02	--
24709 PANAMA AVE	Xylenes, Total	µg/kg	1106	95UCL	4.7E+05	--	2E-03	--
24709 RAVENNA AVE	1,1,2,2-Tetrachloroethane	µg/kg	330	Max	8.3E+05	5.7E+03	4E-04	6E-07
24709 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	3424	95UCL	7.5E+04	--	5E-02	--
24709 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	583.9	95UCL	7.7E+04	--	8E-03	--
24709 RAVENNA AVE	1-Methylnaphthalene	mg/kg	13.14	95UCL	1.9E+05	2.7E+03	7E-05	5E-08
24709 RAVENNA AVE	2-Methylnaphthalene	mg/kg	19.5	95UCL	1.1E+04	--	2E-03	--
24709 RAVENNA AVE	Benzene	µg/kg	145.8	95UCL	6.9E+04	2.2E+03	2E-03	7E-07
24709 RAVENNA AVE	Bromomethane	µg/kg	240.6	95UCL	7.8E+03	--	3E-02	--
24709 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.22	Max	3.2E+03	6.7E+00	7E-05	3E-07
24709 RAVENNA AVE	Ethylbenzene	µg/kg	1887	95UCL	4.5E+06	5.1E+04	4E-04	4E-07
24709 RAVENNA AVE	Naphthalene	mg/kg	6.461	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24709 RAVENNA AVE	Pyrene	mg/kg	5.429	95UCL	6.7E+04	--	8E-05	--
24709 RAVENNA AVE	Toluene	µg/kg	4.463	95UCL	1.6E+07	--	3E-07	--
24709 RAVENNA AVE	TPH as Diesel	mg/kg	5772	95UCL	1.9E+03	--	3E+00	--
24709 RAVENNA AVE	TPH as Gasoline	mg/kg	414.2	95UCL	8.6E+02	--	5E-01	--
24709 RAVENNA AVE	TPH as Motor Oil	mg/kg	6029	95UCL	1.6E+05	--	4E-02	--
24709 RAVENNA AVE	Xylenes, Total	µg/kg	3307	95UCL	4.7E+05	--	7E-03	--
24710 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	6553	95UCL	7.5E+04	--	9E-02	--
24710 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	770.5	95UCL	7.7E+04	--	1E-02	--
24710 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	69	Max	8.7E+06	2.8E+04	8E-06	3E-08
24710 MARBELLA AVE	1-Methylnaphthalene	mg/kg	13.28	95UCL	1.9E+05	2.7E+03	7E-05	5E-08
24710 MARBELLA AVE	2-Methylnaphthalene	mg/kg	33.05	95UCL	1.1E+04	--	3E-03	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24710 MARBELLA AVE	Benzene	µg/kg	2867	95UCL	6.9E+04	2.2E+03	4E-02	1E-05
24710 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.1	Max	6.3E+04	6.4E+03	2E-05	2E-09
24710 MARBELLA AVE	Bromodichloromethane	µg/kg	0.21	Max	4.9E+05	5.3E+03	4E-07	4E-10
24710 MARBELLA AVE	Cobalt	mg/kg	9.693	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24710 MARBELLA AVE	Ethylbenzene	µg/kg	2712	95UCL	4.5E+06	5.1E+04	6E-04	5E-07
24710 MARBELLA AVE	Naphthalene	mg/kg	11.11	95UCL	1.4E+02	3.9E+01	8E-02	3E-06
24710 MARBELLA AVE	Pyrene	mg/kg	2.284	95UCL	6.7E+04	--	3E-05	--
24710 MARBELLA AVE	Toluene	µg/kg	0.406	95UCL	1.6E+07	--	3E-08	--
24710 MARBELLA AVE	TPH as Diesel	mg/kg	7400	95UCL	1.9E+03	--	4E+00	--
24710 MARBELLA AVE	TPH as Gasoline	mg/kg	571.5	95UCL	8.6E+02	--	7E-01	--
24710 MARBELLA AVE	TPH as Motor Oil	mg/kg	6906	95UCL	1.6E+05	--	4E-02	--
24710 MARBELLA AVE	Xylenes, Total	µg/kg	7344	95UCL	4.7E+05	--	2E-02	--
24712 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	311.7	95UCL	7.5E+04	--	4E-03	--
24712 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	320	Max	7.7E+04	--	4E-03	--
24712 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	7.249	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24712 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	19.04	95UCL	1.1E+04	--	2E-03	--
24712 NEPTUNE AVE	Benzene	µg/kg	78	Max	6.9E+04	2.2E+03	1E-03	4E-07
24712 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.563	95UCL	6.3E+04	6.4E+03	9E-06	9E-10
24712 NEPTUNE AVE	Bromomethane	µg/kg	2.1	Max	7.8E+03	--	3E-04	--
24712 NEPTUNE AVE	Ethylbenzene	µg/kg	360.5	95UCL	4.5E+06	5.1E+04	8E-05	7E-08
24712 NEPTUNE AVE	Naphthalene	mg/kg	6.945	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24712 NEPTUNE AVE	Pyrene	mg/kg	1.335	95UCL	6.7E+04	--	2E-05	--
24712 NEPTUNE AVE	Toluene	µg/kg	0.69	Max	1.6E+07	--	4E-08	--
24712 NEPTUNE AVE	TPH as Diesel	mg/kg	4193	95UCL	1.9E+03	--	2E+00	--
24712 NEPTUNE AVE	TPH as Gasoline	mg/kg	319.2	95UCL	8.6E+02	--	4E-01	--
24712 NEPTUNE AVE	TPH as Motor Oil	mg/kg	5141	95UCL	1.6E+05	--	3E-02	--
24712 NEPTUNE AVE	Xylenes, Total	µg/kg	760	Max	4.7E+05	--	2E-03	--
24712 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	11.15	95UCL	7.5E+04	--	2E-04	--
24712 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	3.352	95UCL	7.7E+04	--	4E-05	--
24712 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.86	95UCL	1.9E+05	2.7E+03	4E-06	3E-09
24712 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.004	95UCL	1.1E+04	--	9E-05	--
24712 PANAMA AVE	Benzene	µg/kg	0.238	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
24712 PANAMA AVE	Bromomethane	µg/kg	3.7	Max	7.8E+03	--	5E-04	--
24712 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.44	Max	3.2E+03	6.7E+00	1E-04	7E-07
24712 PANAMA AVE	Ethylbenzene	µg/kg	6.535	95UCL	4.5E+06	5.1E+04	1E-06	1E-09
24712 PANAMA AVE	Naphthalene	mg/kg	1.025	95UCL	1.4E+02	3.9E+01	7E-03	3E-07
24712 PANAMA AVE	Pyrene	mg/kg	1.135	95UCL	6.7E+04	--	2E-05	--
24712 PANAMA AVE	Toluene	µg/kg	0.239	95UCL	1.6E+07	--	2E-08	--
24712 PANAMA AVE	TPH as Diesel	mg/kg	4241	95UCL	1.9E+03	--	2E+00	--
24712 PANAMA AVE	TPH as Gasoline	mg/kg	124.2	95UCL	8.6E+02	--	1E-01	--
24712 PANAMA AVE	TPH as Motor Oil	mg/kg	9058	95UCL	1.6E+05	--	6E-02	--
24712 PANAMA AVE	Xylenes, Total	µg/kg	1.75	95UCL	4.7E+05	--	4E-06	--
24712 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	307.9	95UCL	7.5E+04	--	4E-03	--
24712 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	61.7	95UCL	7.7E+04	--	8E-04	--
24712 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.273	95UCL	1.9E+05	2.7E+03	7E-06	5E-09
24712 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.639	95UCL	1.1E+04	--	2E-04	--
24712 RAVENNA AVE	Benzene	µg/kg	5.023	95UCL	6.9E+04	2.2E+03	7E-05	2E-08
24712 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	6.3	Max	6.3E+04	6.4E+03	1E-04	1E-08
24712 RAVENNA AVE	Bromomethane	µg/kg	800	Max	7.8E+03	--	1E-01	--
24712 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.168	95UCL	3.2E+03	6.7E+00	5E-05	3E-07
24712 RAVENNA AVE	Ethylbenzene	µg/kg	21.58	95UCL	4.5E+06	5.1E+04	5E-06	4E-09
24712 RAVENNA AVE	Naphthalene	mg/kg	0.552	95UCL	1.4E+02	3.9E+01	4E-03	1E-07
24712 RAVENNA AVE	Pyrene	mg/kg	0.878	95UCL	6.7E+04	--	1E-05	--
24712 RAVENNA AVE	Tetrachloroethene	µg/kg	0.17	Max	8.6E+04	1.0E+04	2E-06	2E-10
24712 RAVENNA AVE	Toluene	µg/kg	13.53	95UCL	1.6E+07	--	8E-07	--
24712 RAVENNA AVE	TPH as Diesel	mg/kg	1512	95UCL	1.9E+03	--	8E-01	--
24712 RAVENNA AVE	TPH as Gasoline	mg/kg	35.54	95UCL	8.6E+02	--	4E-02	--
24712 RAVENNA AVE	TPH as Motor Oil	mg/kg	1574	95UCL	1.6E+05	--	1E-02	--
24712 RAVENNA AVE	Xylenes, Total	µg/kg	54.59	95UCL	4.7E+05	--	1E-04	--
24713 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.234	95UCL	7.5E+04	--	3E-06	--
24713 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0329	95UCL	1.9E+05	2.7E+03	2E-07	1E-10

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24713 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0911	95UCL	1.1E+04	--	8E-06	--
24713 MARBELLA AVE	Benzene	µg/kg	0.327	95UCL	6.9E+04	2.2E+03	5E-06	2E-09
24713 MARBELLA AVE	Cobalt	mg/kg	9.607	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
24713 MARBELLA AVE	Naphthalene	mg/kg	0.575	95UCL	1.4E+02	3.9E+01	4E-03	2E-07
24713 MARBELLA AVE	Pyrene	mg/kg	0.0413	95UCL	6.7E+04	--	6E-07	--
24713 MARBELLA AVE	Toluene	µg/kg	0.237	95UCL	1.6E+07	--	1E-08	--
24713 MARBELLA AVE	TPH as Diesel	mg/kg	121.9	95UCL	1.9E+03	--	6E-02	--
24713 MARBELLA AVE	TPH as Gasoline	mg/kg	0.075	Max	8.6E+02	--	9E-05	--
24713 MARBELLA AVE	TPH as Motor Oil	mg/kg	388.4	95UCL	1.6E+05	--	2E-03	--
24713 MARBELLA AVE	Xylenes, Total	µg/kg	0.35	Max	4.7E+05	--	7E-07	--
24713 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	12.61	95UCL	7.5E+04	--	2E-04	--
24713 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	1.635	95UCL	7.7E+04	--	2E-05	--
24713 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.524	95UCL	1.9E+05	2.7E+03	3E-06	2E-09
24713 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.06	95UCL	1.1E+04	--	1E-04	--
24713 PANAMA AVE	Benzene	µg/kg	7.011	95UCL	6.9E+04	2.2E+03	1E-04	3E-08
24713 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.65	Max	6.3E+04	6.4E+03	1E-05	1E-09
24713 PANAMA AVE	Bromomethane	µg/kg	1.362	95UCL	7.8E+03	--	2E-04	--
24713 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.9	Max	3.2E+03	6.7E+00	3E-04	1E-06
24713 PANAMA AVE	Ethylbenzene	µg/kg	13.7	95UCL	4.5E+06	5.1E+04	3E-06	3E-09
24713 PANAMA AVE	Methylene Chloride	µg/kg	6.459	95UCL	1.2E+06	5.9E+04	5E-06	1E-09
24713 PANAMA AVE	Naphthalene	mg/kg	0.299	95UCL	1.4E+02	3.9E+01	2E-03	8E-08
24713 PANAMA AVE	Pyrene	mg/kg	1.52	95UCL	6.7E+04	--	2E-05	--
24713 PANAMA AVE	Toluene	µg/kg	0.346	95UCL	1.6E+07	--	2E-08	--
24713 PANAMA AVE	TPH as Diesel	mg/kg	3081	95UCL	1.9E+03	--	2E+00	--
24713 PANAMA AVE	TPH as Gasoline	mg/kg	54.79	95UCL	8.6E+02	--	6E-02	--
24713 PANAMA AVE	TPH as Motor Oil	mg/kg	7188	95UCL	1.6E+05	--	5E-02	--
24713 PANAMA AVE	Xylenes, Total	µg/kg	12.2	95UCL	4.7E+05	--	3E-05	--
24713 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2003	95UCL	7.5E+04	--	3E-02	--
24713 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	615.9	95UCL	7.7E+04	--	8E-03	--
24713 RAVENNA AVE	1-Methylnaphthalene	mg/kg	4.152	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
24713 RAVENNA AVE	2-Methylnaphthalene	mg/kg	9.485	95UCL	1.1E+04	--	9E-04	--
24713 RAVENNA AVE	Benzene	µg/kg	83.76	95UCL	6.9E+04	2.2E+03	1E-03	4E-07
24713 RAVENNA AVE	Ethylbenzene	µg/kg	698.3	95UCL	4.5E+06	5.1E+04	2E-04	1E-07
24713 RAVENNA AVE	Naphthalene	mg/kg	3.575	95UCL	1.4E+02	3.9E+01	3E-02	9E-07
24713 RAVENNA AVE	Pyrene	mg/kg	2.083	95UCL	6.7E+04	--	3E-05	--
24713 RAVENNA AVE	Toluene	µg/kg	8.984	95UCL	1.6E+07	--	6E-07	--
24713 RAVENNA AVE	TPH as Diesel	mg/kg	5056	95UCL	1.9E+03	--	3E+00	--
24713 RAVENNA AVE	TPH as Gasoline	mg/kg	370.5	95UCL	8.6E+02	--	4E-01	--
24713 RAVENNA AVE	TPH as Motor Oil	mg/kg	5851	95UCL	1.6E+05	--	4E-02	--
24713 RAVENNA AVE	Xylenes, Total	µg/kg	897.3	95UCL	4.7E+05	--	2E-03	--
24715 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	3100	95UCL	7.5E+04	--	4E-02	--
24715 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	821.9	95UCL	7.7E+04	--	1E-02	--
24715 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	13.71	95UCL	1.9E+05	2.7E+03	7E-05	5E-08
24715 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	19.05	95UCL	1.1E+04	--	2E-03	--
24715 NEPTUNE AVE	Benzene	µg/kg	997.3	95UCL	6.9E+04	2.2E+03	1E-02	5E-06
24715 NEPTUNE AVE	Benzo (a) Anthracene	mg/kg	0.824	95UCL	--	2.6E+02	--	3E-08
24715 NEPTUNE AVE	Benzo (a) Pyrene	mg/kg	0.501	95UCL	--	2.6E+01	--	2E-07
24715 NEPTUNE AVE	Benzo (b) Fluoranthene	mg/kg	0.233	95UCL	--	2.6E+02	--	9E-09
24715 NEPTUNE AVE	Benzo (k) Fluoranthene	mg/kg	0.0671	95UCL	--	2.6E+02	--	3E-09
24715 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.34	Max	6.3E+04	6.4E+03	5E-06	5E-10
24715 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.33	Max	3.2E+03	6.7E+00	1E-04	5E-07
24715 NEPTUNE AVE	Chrysene	mg/kg	2.049	95UCL	--	2.6E+03	--	8E-09
24715 NEPTUNE AVE	Dibenz (a,h) Anthracene	mg/kg	0.108	95UCL	--	1.9E+01	--	6E-08
24715 NEPTUNE AVE	Ethylbenzene	µg/kg	1287	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
24715 NEPTUNE AVE	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.0544	95UCL	--	2.6E+02	--	2E-09
24715 NEPTUNE AVE	Naphthalene	mg/kg	8.789	95UCL	1.4E+02	3.9E+01	6E-02	2E-06
24715 NEPTUNE AVE	Pyrene	mg/kg	3.566	95UCL	6.7E+04	--	5E-05	--
24715 NEPTUNE AVE	Toluene	µg/kg	49.16	95UCL	1.6E+07	--	3E-06	--
24715 NEPTUNE AVE	TPH as Diesel	mg/kg	8860	95UCL	1.9E+03	--	5E+00	--
24715 NEPTUNE AVE	TPH as Gasoline	mg/kg	538.4	95UCL	8.6E+02	--	6E-01	--
24715 NEPTUNE AVE	TPH as Motor Oil	mg/kg	9922	95UCL	1.6E+05	--	6E-02	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24715 NEPTUNE AVE	Xylenes, Total	µg/kg	1678	95UCL	4.7E+05	--	4E-03	--
24716 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	2821	95UCL	7.5E+04	--	4E-02	--
24716 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	10000	Max	7.7E+04	--	1E-01	--
24716 MARBELLA AVE	1-Methylnaphthalene	mg/kg	5.149	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24716 MARBELLA AVE	2-Methylnaphthalene	mg/kg	14.85	95UCL	1.1E+04	--	1E-03	--
24716 MARBELLA AVE	Benzene	µg/kg	312.3	95UCL	6.9E+04	2.2E+03	5E-03	1E-06
24716 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	6.3E+04	6.4E+03	3E-06	3E-10
24716 MARBELLA AVE	Cobalt	mg/kg	9.291	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24716 MARBELLA AVE	Ethylbenzene	µg/kg	1927	95UCL	4.5E+06	5.1E+04	4E-04	4E-07
24716 MARBELLA AVE	Naphthalene	mg/kg	3.178	95UCL	1.4E+02	3.9E+01	2E-02	8E-07
24716 MARBELLA AVE	Pyrene	mg/kg	1.584	95UCL	6.7E+04	--	2E-05	--
24716 MARBELLA AVE	Toluene	µg/kg	0.281	95UCL	1.6E+07	--	2E-08	--
24716 MARBELLA AVE	TPH as Diesel	mg/kg	4813	95UCL	1.9E+03	--	3E+00	--
24716 MARBELLA AVE	TPH as Gasoline	mg/kg	427.8	95UCL	8.6E+02	--	5E-01	--
24716 MARBELLA AVE	TPH as Motor Oil	mg/kg	4480	95UCL	1.6E+05	--	3E-02	--
24716 MARBELLA AVE	Xylenes, Total	µg/kg	5119	95UCL	4.7E+05	--	1E-02	--
24716 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.903	95UCL	7.5E+04	--	1E-05	--
24716 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1.2	Max	7.7E+04	--	2E-05	--
24716 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.349	95UCL	1.9E+05	2.7E+03	2E-06	1E-09
24716 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.358	95UCL	1.1E+04	--	3E-05	--
24716 RAVENNA AVE	Benzene	µg/kg	0.445	95UCL	6.9E+04	2.2E+03	6E-06	2E-09
24716 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.26	Max	3.2E+03	6.7E+00	8E-05	4E-07
24716 RAVENNA AVE	Ethylbenzene	µg/kg	0.45	Max	4.5E+06	5.1E+04	1E-07	9E-11
24716 RAVENNA AVE	Naphthalene	mg/kg	0.0481	95UCL	1.4E+02	3.9E+01	3E-04	1E-08
24716 RAVENNA AVE	Pyrene	mg/kg	0.702	95UCL	6.7E+04	--	1E-05	--
24716 RAVENNA AVE	Toluene	µg/kg	0.254	95UCL	1.6E+07	--	2E-08	--
24716 RAVENNA AVE	TPH as Diesel	mg/kg	2170	95UCL	1.9E+03	--	1E+00	--
24716 RAVENNA AVE	TPH as Gasoline	mg/kg	0.483	95UCL	8.6E+02	--	6E-04	--
24716 RAVENNA AVE	TPH as Motor Oil	mg/kg	2839	95UCL	1.6E+05	--	2E-02	--
24716 RAVENNA AVE	Xylenes, Total	µg/kg	2.8	Max	4.7E+05	--	6E-06	--
24717 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	29.68	95UCL	7.5E+04	--	4E-04	--
24717 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	9.711	95UCL	7.7E+04	--	1E-04	--
24717 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.29	Max	8.7E+06	2.8E+04	3E-08	1E-10
24717 MARBELLA AVE	1-Methylnaphthalene	mg/kg	3.675	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24717 MARBELLA AVE	2-Methylnaphthalene	mg/kg	4.353	95UCL	1.1E+04	--	4E-04	--
24717 MARBELLA AVE	Benzene	µg/kg	2.491	95UCL	6.9E+04	2.2E+03	4E-05	1E-08
24717 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.241	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24717 MARBELLA AVE	Cobalt	µg/kg	9.428	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24717 MARBELLA AVE	Ethylbenzene	µg/kg	27.33	95UCL	4.5E+06	5.1E+04	6E-06	5E-09
24717 MARBELLA AVE	Naphthalene	mg/kg	1.461	95UCL	1.4E+02	3.9E+01	1E-02	4E-07
24717 MARBELLA AVE	Pyrene	mg/kg	0.866	95UCL	6.7E+04	--	1E-05	--
24717 MARBELLA AVE	Toluene	µg/kg	0.355	95UCL	1.6E+07	--	2E-08	--
24717 MARBELLA AVE	TPH as Diesel	mg/kg	3183	95UCL	1.9E+03	--	2E+00	--
24717 MARBELLA AVE	TPH as Gasoline	mg/kg	53	95UCL	8.6E+02	--	6E-02	--
24717 MARBELLA AVE	TPH as Motor Oil	mg/kg	3252	95UCL	1.6E+05	--	2E-02	--
24717 MARBELLA AVE	Xylenes, Total	µg/kg	8.597	95UCL	4.7E+05	--	2E-05	--
24718 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	4731	95UCL	7.5E+04	--	6E-02	--
24718 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1961	95UCL	7.7E+04	--	3E-02	--
24718 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	8.584	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24718 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	13.43	95UCL	1.1E+04	--	1E-03	--
24718 NEPTUNE AVE	Antimony	mg/kg	0.621	95UCL	3.1E+03	--	2E-04	--
24718 NEPTUNE AVE	Benzene	µg/kg	93.32	95UCL	6.9E+04	2.2E+03	1E-03	4E-07
24718 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.22	Max	3.2E+03	6.7E+00	7E-05	3E-07
24718 NEPTUNE AVE	Ethylbenzene	µg/kg	4676	95UCL	4.5E+06	5.1E+04	1E-03	9E-07
24718 NEPTUNE AVE	Naphthalene	mg/kg	6.05	95UCL	1.4E+02	3.9E+01	4E-02	2E-06
24718 NEPTUNE AVE	Pyrene	mg/kg	0.545	95UCL	6.7E+04	--	8E-06	--
24718 NEPTUNE AVE	Toluene	µg/kg	1.414	95UCL	1.6E+07	--	9E-08	--
24718 NEPTUNE AVE	TPH as Diesel	mg/kg	6056	95UCL	1.9E+03	--	3E+00	--
24718 NEPTUNE AVE	TPH as Gasoline	mg/kg	664	95UCL	8.6E+02	--	8E-01	--
24718 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6494	95UCL	1.6E+05	--	4E-02	--
24718 NEPTUNE AVE	Trichloroethene	µg/kg	0.23	Max	5.5E+03	1.9E+04	4E-05	1E-10

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24718 NEPTUNE AVE	Xylenes, Total	µg/kg	6169	95UCL	4.7E+05	--	1E-02	--
24718 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	0.882	95UCL	2.0E+03	7.2E+03	5E-04	1E-09
24718 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	25.37	95UCL	7.5E+04	--	3E-04	--
24718 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	10.65	95UCL	7.7E+04	--	1E-04	--
24718 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.784	95UCL	1.9E+05	2.7E+03	4E-06	3E-09
24718 PANAMA AVE	2-Methylnaphthalene	mg/kg	1.61	95UCL	1.1E+04	--	2E-04	--
24718 PANAMA AVE	Benzene	µg/kg	0.519	95UCL	6.9E+04	2.2E+03	8E-06	2E-09
24718 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.1	Max	6.3E+04	6.4E+03	2E-05	2E-09
24718 PANAMA AVE	Bromomethane	µg/kg	680	Max	7.8E+03	--	9E-02	--
24718 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.267	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24718 PANAMA AVE	Ethylbenzene	µg/kg	9.913	95UCL	4.5E+06	5.1E+04	2E-06	2E-09
24718 PANAMA AVE	Naphthalene	mg/kg	0.477	95UCL	1.4E+02	3.9E+01	3E-03	1E-07
24718 PANAMA AVE	Pyrene	mg/kg	8.026	95UCL	6.7E+04	--	1E-04	--
24718 PANAMA AVE	Toluene	µg/kg	0.342	95UCL	1.6E+07	--	2E-08	--
24718 PANAMA AVE	TPH as Diesel	mg/kg	1462	95UCL	1.9E+03	--	8E-01	--
24718 PANAMA AVE	TPH as Gasoline	mg/kg	0.555	95UCL	8.6E+02	--	7E-04	--
24718 PANAMA AVE	TPH as Motor Oil	mg/kg	5358	95UCL	1.6E+05	--	3E-02	--
24718 PANAMA AVE	Xylenes, Total	µg/kg	13.44	95UCL	4.7E+05	--	3E-05	--
24719 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	2056	95UCL	7.5E+04	--	3E-02	--
24719 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	40.63	95UCL	7.7E+04	--	5E-04	--
24719 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	170	Max	8.7E+06	2.8E+04	2E-05	6E-08
24719 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	5.513	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24719 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	16.69	95UCL	1.1E+04	--	2E-03	--
24719 NEPTUNE AVE	Benzene	µg/kg	97.49	95UCL	6.9E+04	2.2E+03	1E-03	4E-07
24719 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.603	95UCL	6.3E+04	6.4E+03	1E-05	9E-10
24719 NEPTUNE AVE	Bromomethane	µg/kg	1.8	Max	7.8E+03	--	2E-04	--
24719 NEPTUNE AVE	Ethylbenzene	µg/kg	4826	95UCL	4.5E+06	5.1E+04	1E-03	1E-06
24719 NEPTUNE AVE	Naphthalene	mg/kg	7.111	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24719 NEPTUNE AVE	Pyrene	mg/kg	0.666	95UCL	6.7E+04	--	1E-05	--
24719 NEPTUNE AVE	Toluene	µg/kg	0.62	95UCL	1.6E+07	--	4E-08	--
24719 NEPTUNE AVE	TPH as Diesel	mg/kg	5679	95UCL	1.9E+03	--	3E+00	--
24719 NEPTUNE AVE	TPH as Gasoline	mg/kg	864.4	95UCL	8.6E+02	--	1E+00	--
24719 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6129	95UCL	1.6E+05	--	4E-02	--
24719 NEPTUNE AVE	Xylenes, Total	µg/kg	346.5	95UCL	4.7E+05	--	7E-04	--
24719 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	21.71	95UCL	7.5E+04	--	3E-04	--
24719 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	16.29	95UCL	7.7E+04	--	2E-04	--
24719 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.518	95UCL	1.9E+05	2.7E+03	3E-06	2E-09
24719 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.468	95UCL	1.1E+04	--	4E-05	--
24719 PANAMA AVE	Benzene	µg/kg	0.415	95UCL	6.9E+04	2.2E+03	6E-06	2E-09
24719 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.22	Max	6.3E+04	6.4E+03	4E-06	3E-10
24719 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.315	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24719 PANAMA AVE	Ethylbenzene	µg/kg	2.192	95UCL	4.5E+06	5.1E+04	5E-07	4E-10
24719 PANAMA AVE	Naphthalene	mg/kg	0.006	95UCL	1.4E+02	3.9E+01	4E-05	2E-09
24719 PANAMA AVE	Pyrene	mg/kg	1.353	95UCL	6.7E+04	--	2E-05	--
24719 PANAMA AVE	Toluene	µg/kg	0.217	95UCL	1.6E+07	--	1E-08	--
24719 PANAMA AVE	TPH as Diesel	mg/kg	2787	95UCL	1.9E+03	--	2E+00	--
24719 PANAMA AVE	TPH as Gasoline	mg/kg	0.182	95UCL	8.6E+02	--	2E-04	--
24719 PANAMA AVE	TPH as Motor Oil	mg/kg	5080	95UCL	1.6E+05	--	3E-02	--
24719 PANAMA AVE	Xylenes, Total	µg/kg	11.61	95UCL	4.7E+05	--	3E-05	--
24719 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	4973	95UCL	7.5E+04	--	7E-02	--
24719 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1184	95UCL	7.7E+04	--	2E-02	--
24719 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.27	Max	8.7E+06	2.8E+04	3E-08	1E-10
24719 RAVENNA AVE	1-Methylnaphthalene	mg/kg	6.458	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24719 RAVENNA AVE	2-Methylnaphthalene	mg/kg	16.56	95UCL	1.1E+04	--	2E-03	--
24719 RAVENNA AVE	Benzene	µg/kg	272.1	95UCL	6.9E+04	2.2E+03	4E-03	1E-06
24719 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.5	Max	6.3E+04	6.4E+03	2E-05	2E-09
24719 RAVENNA AVE	Bromomethane	µg/kg	453.8	95UCL	7.8E+03	--	6E-02	--
24719 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.64	95UCL	3.2E+03	6.7E+00	2E-04	1E-06
24719 RAVENNA AVE	Ethylbenzene	µg/kg	1771	95UCL	4.5E+06	5.1E+04	4E-04	4E-07
24719 RAVENNA AVE	Naphthalene	mg/kg	4.361	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24719 RAVENNA AVE	Pyrene	mg/kg	1.208	95UCL	6.7E+04	--	2E-05	--

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24719 RAVENNA AVE	Toluene	µg/kg	814.4	95UCL	1.6E+07	--	5E-05	--
24719 RAVENNA AVE	TPH as Diesel	mg/kg	5988	95UCL	1.9E+03	--	3E+00	--
24719 RAVENNA AVE	TPH as Gasoline	mg/kg	635.5	95UCL	8.6E+02	--	7E-01	--
24719 RAVENNA AVE	TPH as Motor Oil	mg/kg	6355	95UCL	1.6E+05	--	4E-02	--
24719 RAVENNA AVE	Xylenes, Total	µg/kg	8658	95UCL	4.7E+05	--	2E-02	--
24722 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.54	Max	7.5E+04	--	7E-06	--
24722 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.00643	95UCL	1.9E+05	2.7E+03	3E-08	2E-11
24722 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0183	95UCL	1.1E+04	--	2E-06	--
24722 MARBELLA AVE	Benzene	µg/kg	0.476	95UCL	6.9E+04	2.2E+03	7E-06	2E-09
24722 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.34	Max	6.3E+04	6.4E+03	5E-06	5E-10
24722 MARBELLA AVE	Bromomethane	µg/kg	0.92	Max	7.8E+03	--	1E-04	--
24722 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.7	Max	3.2E+03	6.7E+00	2E-04	1E-06
24722 MARBELLA AVE	Ethylbenzene	µg/kg	0.41	Max	4.5E+06	5.1E+04	9E-08	8E-11
24722 MARBELLA AVE	Naphthalene	mg/kg	0.0055	95UCL	1.4E+02	3.9E+01	4E-05	1E-09
24722 MARBELLA AVE	Pyrene	mg/kg	0.591	95UCL	6.7E+04	--	9E-06	--
24722 MARBELLA AVE	Toluene	µg/kg	0.886	95UCL	1.6E+07	--	5E-08	--
24722 MARBELLA AVE	TPH as Diesel	mg/kg	961.7	95UCL	1.9E+03	--	5E-01	--
24722 MARBELLA AVE	TPH as Gasoline	mg/kg	0.343	95UCL	8.6E+02	--	4E-04	--
24722 MARBELLA AVE	TPH as Motor Oil	mg/kg	2248	95UCL	1.6E+05	--	1E-02	--
24722 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.51	Max	7.5E+04	--	7E-06	--
24722 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.00393	95UCL	1.1E+04	--	4E-07	--
24722 NEPTUNE AVE	Benzene	µg/kg	0.743	95UCL	6.9E+04	2.2E+03	1E-05	3E-09
24722 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	6.3E+04	6.4E+03	3E-06	3E-10
24722 NEPTUNE AVE	Bromomethane	µg/kg	2.4	Max	7.8E+03	--	3E-04	--
24722 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.25	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24722 NEPTUNE AVE	Ethylbenzene	µg/kg	0.78	Max	4.5E+06	5.1E+04	2E-07	2E-10
24722 NEPTUNE AVE	Naphthalene	mg/kg	0.00236	95UCL	1.4E+02	3.9E+01	2E-05	6E-10
24722 NEPTUNE AVE	Pyrene	mg/kg	0.00662	95UCL	6.7E+04	--	1E-07	--
24722 NEPTUNE AVE	Toluene	µg/kg	0.625	95UCL	1.6E+07	--	4E-08	--
24722 NEPTUNE AVE	TPH as Diesel	mg/kg	21.44	95UCL	1.9E+03	--	1E-02	--
24722 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.0748	95UCL	8.6E+02	--	9E-05	--
24722 NEPTUNE AVE	TPH as Motor Oil	mg/kg	62.32	95UCL	1.6E+05	--	4E-04	--
24722 NEPTUNE AVE	Xylenes, Total	µg/kg	0.306	95UCL	4.7E+05	--	7E-07	--
24722 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.21	95UCL	7.5E+04	--	3E-06	--
24722 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.12	Max	7.7E+04	--	2E-06	--
24722 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.436	95UCL	1.9E+05	2.7E+03	2E-06	2E-09
24722 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.347	95UCL	1.1E+04	--	3E-05	--
24722 PANAMA AVE	Benzene	µg/kg	0.229	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
24722 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	3.2E+03	6.7E+00	1E-04	5E-07
24722 PANAMA AVE	Naphthalene	mg/kg	0.0868	95UCL	1.4E+02	3.9E+01	6E-04	2E-08
24722 PANAMA AVE	Pyrene	mg/kg	0.576	95UCL	6.7E+04	--	9E-06	--
24722 PANAMA AVE	Toluene	µg/kg	0.25	95UCL	1.6E+07	--	2E-08	--
24722 PANAMA AVE	TPH as Diesel	mg/kg	1080	95UCL	1.9E+03	--	6E-01	--
24722 PANAMA AVE	TPH as Gasoline	mg/kg	0.122	95UCL	8.6E+02	--	1E-04	--
24722 PANAMA AVE	TPH as Motor Oil	mg/kg	1623	95UCL	1.6E+05	--	1E-02	--
24722 PANAMA AVE	Xylenes, Total	µg/kg	0.46	Max	4.7E+05	--	1E-06	--
24722 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	135.8	95UCL	7.5E+04	--	2E-03	--
24722 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	58.18	95UCL	7.7E+04	--	8E-04	--
24722 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.048	95UCL	1.9E+05	2.7E+03	5E-06	4E-09
24722 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.361	95UCL	1.1E+04	--	1E-04	--
24722 RAVENNA AVE	Benzene	µg/kg	2.43	95UCL	6.9E+04	2.2E+03	4E-05	1E-08
24722 RAVENNA AVE	Bromomethane	µg/kg	0.894	95UCL	7.8E+03	--	1E-04	--
24722 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.366	95UCL	3.2E+03	6.7E+00	1E-04	6E-07
24722 RAVENNA AVE	Ethylbenzene	µg/kg	18.82	95UCL	4.5E+06	5.1E+04	4E-06	4E-09
24722 RAVENNA AVE	Naphthalene	mg/kg	0.467	95UCL	1.4E+02	3.9E+01	3E-03	1E-07
24722 RAVENNA AVE	Pyrene	mg/kg	0.972	95UCL	6.7E+04	--	2E-05	--
24722 RAVENNA AVE	Toluene	µg/kg	5.087	95UCL	1.6E+07	--	3E-07	--
24722 RAVENNA AVE	TPH as Diesel	mg/kg	2431	95UCL	1.9E+03	--	1E+00	--
24722 RAVENNA AVE	TPH as Gasoline	mg/kg	1.371	95UCL	8.6E+02	--	2E-03	--
24722 RAVENNA AVE	TPH as Motor Oil	mg/kg	5422	95UCL	1.6E+05	--	3E-02	--
24722 RAVENNA AVE	Xylenes, Total	µg/kg	47.11	95UCL	4.7E+05	--	1E-04	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24723 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	12.87	95UCL	7.5E+04	--	2E-04	--
24723 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	9.3	Max	7.7E+04	--	1E-04	--
24723 MARBELLA AVE	1,4-Dichlorobenzene	µg/kg	0.2	Max	8.7E+06	2.8E+04	2E-08	7E-11
24723 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0731	95UCL	1.9E+05	2.7E+03	4E-07	3E-10
24723 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0903	95UCL	1.1E+04	--	8E-06	--
24723 MARBELLA AVE	Benzene	µg/kg	1.427	95UCL	6.9E+04	2.2E+03	2E-05	6E-09
24723 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.39	Max	6.3E+04	6.4E+03	6E-06	6E-10
24723 MARBELLA AVE	Bromomethane	µg/kg	2.1	Max	7.8E+03	--	3E-04	--
24723 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.23	Max	3.2E+03	6.7E+00	7E-05	3E-07
24723 MARBELLA AVE	Cobalt	mg/kg	8.553	95UCL	2.0E+02	1.1E+02	4E-02	8E-07
24723 MARBELLA AVE	Ethylbenzene	µg/kg	5.74	95UCL	4.5E+06	5.1E+04	1E-06	1E-09
24723 MARBELLA AVE	Naphthalene	mg/kg	0.0847	95UCL	1.4E+02	3.9E+01	6E-04	2E-08
24723 MARBELLA AVE	Pyrene	mg/kg	0.65	95UCL	6.7E+04	--	1E-05	--
24723 MARBELLA AVE	Tetrachloroethene	µg/kg	0.32	Max	8.6E+04	1.0E+04	4E-06	3E-10
24723 MARBELLA AVE	Toluene	µg/kg	0.891	95UCL	1.6E+07	--	5E-08	--
24723 MARBELLA AVE	TPH as Diesel	mg/kg	1442	95UCL	1.9E+03	--	8E-01	--
24723 MARBELLA AVE	TPH as Gasoline	mg/kg	0.195	95UCL	8.6E+02	--	2E-04	--
24723 MARBELLA AVE	TPH as Motor Oil	mg/kg	1803	95UCL	1.6E+05	--	1E-02	--
24723 MARBELLA AVE	Xylenes, Total	µg/kg	0.581	95UCL	4.7E+05	--	1E-06	--
24723 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	2.782	95UCL	7.5E+04	--	4E-05	--
24723 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	170	Max	8.7E+06	2.8E+04	2E-05	6E-08
24723 RAVENNA AVE	1-Methylnaphthalene	mg/kg	1.179	95UCL	1.9E+05	2.7E+03	6E-06	4E-09
24723 RAVENNA AVE	2-Methylnaphthalene	mg/kg	1.919	95UCL	1.1E+04	--	2E-04	--
24723 RAVENNA AVE	Benzene	µg/kg	0.184	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24723 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.34	Max	6.3E+04	6.4E+03	5E-06	5E-10
24723 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.371	95UCL	3.2E+03	6.7E+00	1E-04	6E-07
24723 RAVENNA AVE	Ethylbenzene	µg/kg	595.7	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24723 RAVENNA AVE	Naphthalene	mg/kg	0.782	95UCL	1.4E+02	3.9E+01	6E-03	2E-07
24723 RAVENNA AVE	Pyrene	mg/kg	0.166	95UCL	6.7E+04	--	3E-06	--
24723 RAVENNA AVE	Toluene	µg/kg	0.281	95UCL	1.6E+07	--	2E-08	--
24723 RAVENNA AVE	TPH as Diesel	mg/kg	1239	95UCL	1.9E+03	--	7E-01	--
24723 RAVENNA AVE	TPH as Gasoline	mg/kg	117.4	95UCL	8.6E+02	--	1E-01	--
24723 RAVENNA AVE	TPH as Motor Oil	mg/kg	1264	95UCL	1.6E+05	--	8E-03	--
24723 RAVENNA AVE	Xylenes, Total	µg/kg	15.65	95UCL	4.7E+05	--	3E-05	--
24725 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1.1	Max	7.5E+04	--	2E-05	--
24725 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0052	Max	1.9E+05	2.7E+03	3E-08	2E-11
24725 NEPTUNE AVE	2,4-Dinitrotoluene	mg/kg	0.12	Max	6.3E+03	2.8E+02	2E-05	4E-09
24725 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.00776	95UCL	1.1E+04	--	7E-07	--
24725 NEPTUNE AVE	Benzene	µg/kg	0.14	95UCL	6.9E+04	2.2E+03	2E-06	6E-10
24725 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.36	Max	6.3E+04	6.4E+03	6E-06	6E-10
24725 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.199	95UCL	3.2E+03	6.7E+00	6E-05	3E-07
24725 NEPTUNE AVE	Naphthalene	mg/kg	0.00441	95UCL	1.4E+02	3.9E+01	3E-05	1E-09
24725 NEPTUNE AVE	Pyrene	mg/kg	0.317	95UCL	6.7E+04	--	5E-06	--
24725 NEPTUNE AVE	Toluene	µg/kg	0.282	95UCL	1.6E+07	--	2E-08	--
24725 NEPTUNE AVE	TPH as Diesel	mg/kg	194.6	95UCL	1.9E+03	--	1E-01	--
24725 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.08	95UCL	8.6E+02	--	9E-05	--
24725 NEPTUNE AVE	TPH as Motor Oil	mg/kg	422.8	95UCL	1.6E+05	--	3E-03	--
24726 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	9.743	95UCL	7.5E+04	--	1E-04	--
24726 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.752	95UCL	7.7E+04	--	1E-05	--
24726 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.289	95UCL	1.9E+05	2.7E+03	2E-06	1E-09
24726 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.347	95UCL	1.1E+04	--	3E-05	--
24726 MARBELLA AVE	Benzene	µg/kg	1.663	95UCL	6.9E+04	2.2E+03	2E-05	8E-09
24726 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.1	Max	6.3E+04	6.4E+03	2E-05	2E-09
24726 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.331	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24726 MARBELLA AVE	Cobalt	mg/kg	9.568	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24726 MARBELLA AVE	Ethylbenzene	µg/kg	6.755	95UCL	4.5E+06	5.1E+04	2E-06	1E-09
24726 MARBELLA AVE	Naphthalene	mg/kg	0.0674	95UCL	1.4E+02	3.9E+01	5E-04	2E-08
24726 MARBELLA AVE	Pyrene	mg/kg	0.252	95UCL	6.7E+04	--	4E-06	--
24726 MARBELLA AVE	Toluene	µg/kg	1.474	95UCL	1.6E+07	--	9E-08	--
24726 MARBELLA AVE	TPH as Diesel	mg/kg	257.5	95UCL	1.9E+03	--	1E-01	--
24726 MARBELLA AVE	TPH as Gasoline	mg/kg	7.425	95UCL	8.6E+02	--	9E-03	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24726 MARBELLA AVE	TPH as Motor Oil	mg/kg	589.8	95UCL	1.6E+05	--	4E-03	--
24726 MARBELLA AVE	Xylenes, Total	µg/kg	6.515	95UCL	4.7E+05	--	1E-05	--
24726 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	4.7	Max	7.5E+04	--	6E-05	--
24726 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1.7	Max	7.7E+04	--	2E-05	--
24726 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.234	95UCL	1.9E+05	2.7E+03	1E-06	9E-10
24726 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.345	95UCL	1.1E+04	--	3E-05	--
24726 RAVENNA AVE	Benzene	µg/kg	0.22	Max	6.9E+04	2.2E+03	3E-06	1E-09
24726 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	6.3E+04	6.4E+03	3E-06	3E-10
24726 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.281	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24726 RAVENNA AVE	Ethylbenzene	µg/kg	1.2	Max	4.5E+06	5.1E+04	3E-07	2E-10
24726 RAVENNA AVE	Naphthalene	mg/kg	0.121	95UCL	1.4E+02	3.9E+01	9E-04	3E-08
24726 RAVENNA AVE	Pyrene	mg/kg	1.089	95UCL	6.7E+04	--	2E-05	--
24726 RAVENNA AVE	TPH as Diesel	mg/kg	563.9	95UCL	1.9E+03	--	3E-01	--
24726 RAVENNA AVE	TPH as Gasoline	mg/kg	1	Max	8.6E+02	--	1E-03	--
24726 RAVENNA AVE	TPH as Motor Oil	mg/kg	1562	95UCL	1.6E+05	--	1E-02	--
24726 RAVENNA AVE	Trichloroethene	µg/kg	0.43	Max	5.5E+03	1.9E+04	8E-05	2E-10
24726 RAVENNA AVE	Xylenes, Total	µg/kg	0.85	Max	4.7E+05	--	2E-06	--
24727 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	9200	Max	7.5E+04	--	1E-01	--
24727 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	850	Max	7.7E+04	--	1E-02	--
24727 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.108	95UCL	1.9E+05	2.7E+03	6E-07	4E-10
24727 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.127	95UCL	1.1E+04	--	1E-05	--
24727 MARBELLA AVE	Benzene	µg/kg	18.24	95UCL	6.9E+04	2.2E+03	3E-04	8E-08
24727 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.259	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24727 MARBELLA AVE	Ethylbenzene	µg/kg	44.25	95UCL	4.5E+06	5.1E+04	1E-05	9E-09
24727 MARBELLA AVE	Naphthalene	mg/kg	1.517	95UCL	1.4E+02	3.9E+01	1E-02	4E-07
24727 MARBELLA AVE	Pyrene	mg/kg	0.535	95UCL	6.7E+04	--	8E-06	--
24727 MARBELLA AVE	Toluene	µg/kg	0.225	95UCL	1.6E+07	--	1E-08	--
24727 MARBELLA AVE	TPH as Diesel	mg/kg	2542	95UCL	1.9E+03	--	1E+00	--
24727 MARBELLA AVE	TPH as Gasoline	mg/kg	87.32	95UCL	8.6E+02	--	1E-01	--
24727 MARBELLA AVE	TPH as Motor Oil	mg/kg	7445	95UCL	1.6E+05	--	5E-02	--
24727 MARBELLA AVE	Xylenes, Total	µg/kg	2000	Max	4.7E+05	--	4E-03	--
24728 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	710	Max	7.5E+04	--	9E-03	--
24728 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	210	Max	7.7E+04	--	3E-03	--
24728 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.806	95UCL	1.9E+05	2.7E+03	9E-06	7E-09
24728 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	3.005	95UCL	1.1E+04	--	3E-04	--
24728 NEPTUNE AVE	Benzene	µg/kg	537.9	95UCL	6.9E+04	2.2E+03	8E-03	2E-06
24728 NEPTUNE AVE	Bromomethane	µg/kg	2.3	95UCL	7.8E+03	--	3E-04	--
24728 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.57	95UCL	3.2E+03	6.7E+00	2E-04	9E-07
24728 NEPTUNE AVE	Ethylbenzene	µg/kg	6900	Max	4.5E+06	5.1E+04	2E-03	1E-06
24728 NEPTUNE AVE	Naphthalene	mg/kg	1.406	95UCL	1.4E+02	3.9E+01	1E-02	4E-07
24728 NEPTUNE AVE	Pyrene	mg/kg	0.24	95UCL	6.7E+04	--	4E-06	--
24728 NEPTUNE AVE	Toluene	µg/kg	3.838	95UCL	1.6E+07	--	2E-07	--
24728 NEPTUNE AVE	TPH as Diesel	mg/kg	1340	95UCL	1.9E+03	--	7E-01	--
24728 NEPTUNE AVE	TPH as Gasoline	mg/kg	294.8	95UCL	8.6E+02	--	3E-01	--
24728 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1845	95UCL	1.6E+05	--	1E-02	--
24728 NEPTUNE AVE	Xylenes, Total	µg/kg	46.83	95UCL	4.7E+05	--	1E-04	--
24728 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.91	95UCL	7.5E+04	--	1E-05	--
24728 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	2.7	Max	7.7E+04	--	4E-05	--
24728 PANAMA AVE	1-Methylnaphthalene	mg/kg	2.099	95UCL	1.9E+05	2.7E+03	1E-05	8E-09
24728 PANAMA AVE	2-Methylnaphthalene	mg/kg	2.247	95UCL	1.1E+04	--	2E-04	--
24728 PANAMA AVE	Benzene	µg/kg	0.24	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24728 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.56	Max	6.3E+04	6.4E+03	9E-06	9E-10
24728 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.41	95UCL	3.2E+03	6.7E+00	1E-04	6E-07
24728 PANAMA AVE	Ethylbenzene	µg/kg	0.37	Max	4.5E+06	5.1E+04	8E-08	7E-11
24728 PANAMA AVE	Naphthalene	mg/kg	0.215	95UCL	1.4E+02	3.9E+01	2E-03	6E-08
24728 PANAMA AVE	Pyrene	mg/kg	3.117	95UCL	6.7E+04	--	5E-05	--
24728 PANAMA AVE	Toluene	µg/kg	0.193	95UCL	1.6E+07	--	1E-08	--
24728 PANAMA AVE	TPH as Diesel	mg/kg	13864	95UCL	1.9E+03	--	7E+00	--
24728 PANAMA AVE	TPH as Gasoline	mg/kg	70.49	95UCL	8.6E+02	--	8E-02	--
24728 PANAMA AVE	TPH as Motor Oil	mg/kg	19203	95UCL	1.6E+05	--	1E-01	--
24728 PANAMA AVE	Xylenes, Total	µg/kg	4.2	Max	4.7E+05	--	9E-06	--

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24729 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.191	95UCL	7.5E+04	--	3E-06	--
24729 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.2	Max	1.9E+05	2.7E+03	1E-06	8E-10
24729 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0695	95UCL	1.1E+04	--	6E-06	--
24729 NEPTUNE AVE	Benzene	µg/kg	0.157	95UCL	6.9E+04	2.2E+03	2E-06	7E-10
24729 NEPTUNE AVE	Bromomethane	µg/kg	2.1	Max	7.8E+03	--	3E-04	--
24729 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.332	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24729 NEPTUNE AVE	Naphthalene	mg/kg	0.12	Max	1.4E+02	3.9E+01	9E-04	3E-08
24729 NEPTUNE AVE	Pyrene	mg/kg	0.29	95UCL	6.7E+04	--	4E-06	--
24729 NEPTUNE AVE	Toluene	µg/kg	0.7	95UCL	1.6E+07	--	4E-08	--
24729 NEPTUNE AVE	TPH as Diesel	mg/kg	592.5	95UCL	1.9E+03	--	3E-01	--
24729 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.444	95UCL	8.6E+02	--	5E-04	--
24729 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1087	95UCL	1.6E+05	--	7E-03	--
24729 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.25	Max	7.5E+04	--	3E-06	--
24729 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.18	Max	7.7E+04	--	2E-06	--
24729 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00824	95UCL	1.9E+05	2.7E+03	4E-08	3E-11
24729 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0316	95UCL	1.1E+04	--	3E-06	--
24729 PANAMA AVE	Benzene	µg/kg	0.176	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24729 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.281	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24729 PANAMA AVE	Ethylbenzene	µg/kg	0.15	Max	4.5E+06	5.1E+04	3E-08	3E-11
24729 PANAMA AVE	Naphthalene	mg/kg	0.0422	95UCL	1.4E+02	3.9E+01	3E-04	1E-08
24729 PANAMA AVE	Pyrene	mg/kg	0.176	95UCL	6.7E+04	--	3E-06	--
24729 PANAMA AVE	Tetrachloroethene	µg/kg	0.26	Max	8.6E+04	1.0E+04	3E-06	3E-10
24729 PANAMA AVE	Toluene	µg/kg	0.168	95UCL	1.6E+07	--	1E-08	--
24729 PANAMA AVE	TPH as Diesel	mg/kg	345	95UCL	1.9E+03	--	2E-01	--
24729 PANAMA AVE	TPH as Gasoline	mg/kg	0.0665	95UCL	8.6E+02	--	8E-05	--
24729 PANAMA AVE	TPH as Motor Oil	mg/kg	788.8	95UCL	1.6E+05	--	5E-03	--
24729 PANAMA AVE	Xylenes, Total	µg/kg	0.42	Max	4.7E+05	--	9E-07	--
24729 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.22	Max	7.5E+04	--	3E-06	--
24729 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.0039	Max	1.9E+05	2.7E+03	2E-08	2E-11
24729 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.00341	95UCL	1.1E+04	--	3E-07	--
24729 RAVENNA AVE	Benzene	µg/kg	0.184	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24729 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.32	Max	3.2E+03	6.7E+00	1E-04	5E-07
24729 RAVENNA AVE	Naphthalene	mg/kg	0.0368	95UCL	1.4E+02	3.9E+01	3E-04	1E-08
24729 RAVENNA AVE	Pyrene	mg/kg	0.0086	95UCL	6.7E+04	--	1E-07	--
24729 RAVENNA AVE	Toluene	µg/kg	0.391	95UCL	1.6E+07	--	2E-08	--
24729 RAVENNA AVE	TPH as Diesel	mg/kg	89	Max	1.9E+03	--	5E-02	--
24729 RAVENNA AVE	TPH as Gasoline	mg/kg	0.096	Max	8.6E+02	--	1E-04	--
24729 RAVENNA AVE	TPH as Motor Oil	mg/kg	320	Max	1.6E+05	--	2E-03	--
24729 RAVENNA AVE	Xylenes, Total	µg/kg	0.28	Max	4.7E+05	--	6E-07	--
24732 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.297	95UCL	7.5E+04	--	4E-06	--
24732 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.118	95UCL	7.7E+04	--	2E-06	--
24732 MARBELLA AVE	1-Methylnaphthalene	mg/kg	9	Max	1.9E+05	2.7E+03	5E-05	3E-08
24732 MARBELLA AVE	2-Methylnaphthalene	mg/kg	1.467	95UCL	1.1E+04	--	1E-04	--
24732 MARBELLA AVE	Benzene	µg/kg	0.382	95UCL	6.9E+04	2.2E+03	6E-06	2E-09
24732 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.319	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24732 MARBELLA AVE	Ethylbenzene	µg/kg	0.299	95UCL	4.5E+06	5.1E+04	7E-08	6E-11
24732 MARBELLA AVE	Naphthalene	mg/kg	0.337	95UCL	1.4E+02	3.9E+01	2E-03	9E-08
24732 MARBELLA AVE	Pyrene	mg/kg	0.618	95UCL	6.7E+04	--	9E-06	--
24732 MARBELLA AVE	Toluene	µg/kg	0.334	95UCL	1.6E+07	--	2E-08	--
24732 MARBELLA AVE	TPH as Diesel	mg/kg	1897	95UCL	1.9E+03	--	1E+00	--
24732 MARBELLA AVE	TPH as Gasoline	mg/kg	11.7	95UCL	8.6E+02	--	1E-02	--
24732 MARBELLA AVE	TPH as Motor Oil	mg/kg	3253	95UCL	1.6E+05	--	2E-02	--
24732 MARBELLA AVE	Xylenes, Total	µg/kg	0.461	95UCL	4.7E+05	--	1E-06	--
24732 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	8033	95UCL	7.5E+04	--	1E-01	--
24732 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	6723	95UCL	7.7E+04	--	9E-02	--
24732 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	7.68	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24732 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	18.6	95UCL	1.1E+04	--	2E-03	--
24732 NEPTUNE AVE	Benzene	µg/kg	4697	95UCL	6.9E+04	2.2E+03	7E-02	2E-05
24732 NEPTUNE AVE	Ethylbenzene	µg/kg	4314	95UCL	4.5E+06	5.1E+04	1E-03	9E-07
24732 NEPTUNE AVE	Naphthalene	mg/kg	7.697	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24732 NEPTUNE AVE	Pyrene	mg/kg	3.818	95UCL	6.7E+04	--	6E-05	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24732 NEPTUNE AVE	Toluene	µg/kg	9975	95UCL	1.6E+07	--	6E-04	--
24732 NEPTUNE AVE	TPH as Diesel	mg/kg	4977	95UCL	1.9E+03	--	3E+00	--
24732 NEPTUNE AVE	TPH as Gasoline	mg/kg	957.9	95UCL	8.6E+02	--	1E+00	--
24732 NEPTUNE AVE	TPH as Motor Oil	mg/kg	6028	95UCL	1.6E+05	--	4E-02	--
24732 NEPTUNE AVE	Trichloroethene	µg/kg	300	Max	5.5E+03	1.9E+04	6E-02	2E-07
24732 NEPTUNE AVE	Xylenes, Total	µg/kg	17119	95UCL	4.7E+05	--	4E-02	--
24732 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.114	95UCL	8.3E+05	5.7E+03	1E-07	2E-10
24732 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.22	Max	7.5E+04	--	3E-06	--
24732 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.00613	95UCL	1.9E+05	2.7E+03	3E-08	2E-11
24732 PANAMA AVE	2,4-Dinitrotoluene	mg/kg	0.067	Max	6.3E+03	2.8E+02	1E-05	2E-09
24732 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0342	95UCL	1.1E+04	--	3E-06	--
24732 PANAMA AVE	Benzene	µg/kg	0.208	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24732 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.46	Max	6.3E+04	6.4E+03	7E-06	7E-10
24732 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.241	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24732 PANAMA AVE	Naphthalene	mg/kg	0.0109	95UCL	1.4E+02	3.9E+01	8E-05	3E-09
24732 PANAMA AVE	Pyrene	mg/kg	0.368	95UCL	6.7E+04	--	6E-06	--
24732 PANAMA AVE	Toluene	µg/kg	0.186	95UCL	1.6E+07	--	1E-08	--
24732 PANAMA AVE	TPH as Diesel	mg/kg	286	95UCL	1.9E+03	--	2E-01	--
24732 PANAMA AVE	TPH as Gasoline	mg/kg	0.22	Max	8.6E+02	--	3E-04	--
24732 PANAMA AVE	TPH as Motor Oil	mg/kg	722.7	95UCL	1.6E+05	--	5E-03	--
24732 PANAMA AVE	Xylenes, Total	µg/kg	0.41	Max	4.7E+05	--	9E-07	--
24732 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	146.9	95UCL	7.5E+04	--	2E-03	--
24732 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	15.28	95UCL	7.7E+04	--	2E-04	--
24732 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.207	95UCL	1.9E+05	2.7E+03	1E-06	8E-10
24732 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.205	95UCL	1.1E+04	--	2E-05	--
24732 RAVENNA AVE	Benzene	µg/kg	0.201	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24732 RAVENNA AVE	Bromomethane	µg/kg	270	Max	7.8E+03	--	4E-02	--
24732 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.28	Max	3.2E+03	6.7E+00	9E-05	4E-07
24732 RAVENNA AVE	Ethylbenzene	µg/kg	71	Max	4.5E+06	5.1E+04	2E-05	1E-08
24732 RAVENNA AVE	Naphthalene	mg/kg	0.103	95UCL	1.4E+02	3.9E+01	7E-04	3E-08
24732 RAVENNA AVE	Pyrene	mg/kg	0.325	95UCL	6.7E+04	--	5E-06	--
24732 RAVENNA AVE	Toluene	µg/kg	0.225	95UCL	1.6E+07	--	1E-08	--
24732 RAVENNA AVE	TPH as Diesel	mg/kg	990.6	95UCL	1.9E+03	--	5E-01	--
24732 RAVENNA AVE	TPH as Gasoline	mg/kg	26.99	95UCL	8.6E+02	--	3E-02	--
24732 RAVENNA AVE	TPH as Motor Oil	mg/kg	1062	95UCL	1.6E+05	--	7E-03	--
24732 RAVENNA AVE	Xylenes, Total	µg/kg	17.25	95UCL	4.7E+05	--	4E-05	--
24733 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.4	Max	7.5E+04	--	5E-06	--
24733 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	0.095	Max	7.7E+04	--	1E-06	--
24733 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.183	95UCL	1.9E+05	2.7E+03	9E-07	7E-10
24733 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.397	95UCL	1.1E+04	--	4E-05	--
24733 MARBELLA AVE	Benzene	µg/kg	0.467	95UCL	6.9E+04	2.2E+03	7E-06	2E-09
24733 MARBELLA AVE	Bromomethane	µg/kg	1.6	Max	7.8E+03	--	2E-04	--
24733 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.246	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24733 MARBELLA AVE	Cobalt	mg/kg	8.062	95UCL	2.0E+02	1.1E+02	4E-02	7E-07
24733 MARBELLA AVE	Ethylbenzene	µg/kg	280	Max	4.5E+06	5.1E+04	6E-05	6E-08
24733 MARBELLA AVE	Naphthalene	mg/kg	1.112	95UCL	1.4E+02	3.9E+01	8E-03	3E-07
24733 MARBELLA AVE	Pyrene	mg/kg	0.106	95UCL	6.7E+04	--	2E-06	--
24733 MARBELLA AVE	Tetrachloroethene	µg/kg	0.27	Max	8.6E+04	1.0E+04	3E-06	3E-10
24733 MARBELLA AVE	Toluene	µg/kg	0.182	95UCL	1.6E+07	--	1E-08	--
24733 MARBELLA AVE	TPH as Diesel	mg/kg	574	95UCL	1.9E+03	--	3E-01	--
24733 MARBELLA AVE	TPH as Gasoline	mg/kg	123	95UCL	8.6E+02	--	1E-01	--
24733 MARBELLA AVE	TPH as Motor Oil	mg/kg	527.9	95UCL	1.6E+05	--	3E-03	--
24733 MARBELLA AVE	Xylenes, Total	µg/kg	0.25	Max	4.7E+05	--	5E-07	--
24733 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.13	Max	7.5E+04	--	2E-06	--
24733 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0757	95UCL	1.9E+05	2.7E+03	4E-07	3E-10
24733 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.185	95UCL	1.1E+04	--	2E-05	--
24733 PANAMA AVE	Benzene	µg/kg	0.269	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24733 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.59	Max	6.3E+04	6.4E+03	9E-06	9E-10
24733 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.331	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24733 PANAMA AVE	Naphthalene	mg/kg	0.0928	95UCL	1.4E+02	3.9E+01	7E-04	2E-08
24733 PANAMA AVE	Pyrene	mg/kg	1.024	95UCL	6.7E+04	--	2E-05	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24733 PANAMA AVE	Toluene	µg/kg	1.042	95UCL	1.6E+07	--	6E-08	--
24733 PANAMA AVE	TPH as Diesel	mg/kg	757.8	95UCL	1.9E+03	--	4E-01	--
24733 PANAMA AVE	TPH as Gasoline	mg/kg	0.0705	95UCL	8.6E+02	--	8E-05	--
24733 PANAMA AVE	TPH as Motor Oil	mg/kg	1582	95UCL	1.6E+05	--	1E-02	--
24733 PANAMA AVE	Xylenes, Total	µg/kg	0.49	Max	4.7E+05	--	1E-06	--
24733 RAVENNA AVE	1,2,3-Trichloropropane	µg/kg	0.75	Max	2.0E+03	7.2E+03	4E-04	1E-09
24733 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	0.362	95UCL	7.5E+04	--	5E-06	--
24733 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	0.292	95UCL	7.7E+04	--	4E-06	--
24733 RAVENNA AVE	1-Methylnaphthalene	mg/kg	0.157	95UCL	1.9E+05	2.7E+03	8E-07	6E-10
24733 RAVENNA AVE	2-Methylnaphthalene	mg/kg	0.153	95UCL	1.1E+04	--	1E-05	--
24733 RAVENNA AVE	Benzene	µg/kg	0.333	95UCL	6.9E+04	2.2E+03	5E-06	2E-09
24733 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.98	Max	6.3E+04	6.4E+03	2E-05	2E-09
24733 RAVENNA AVE	Bromomethane	µg/kg	1.028	95UCL	7.8E+03	--	1E-04	--
24733 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.38	Max	3.2E+03	6.7E+00	1E-04	6E-07
24733 RAVENNA AVE	Ethylbenzene	µg/kg	0.83	Max	4.5E+06	5.1E+04	2E-07	2E-10
24733 RAVENNA AVE	Naphthalene	mg/kg	0.0281	95UCL	1.4E+02	3.9E+01	2E-04	7E-09
24733 RAVENNA AVE	Pyrene	mg/kg	0.0827	95UCL	6.7E+04	--	1E-06	--
24733 RAVENNA AVE	Tetrachloroethene	µg/kg	0.29	Max	8.6E+04	1.0E+04	3E-06	3E-10
24733 RAVENNA AVE	Thallium	mg/kg	0.291	95UCL	7.7E+01	--	4E-03	--
24733 RAVENNA AVE	Toluene	µg/kg	2.194	95UCL	1.6E+07	--	1E-07	--
24733 RAVENNA AVE	TPH as Diesel	mg/kg	519.7	95UCL	1.9E+03	--	3E-01	--
24733 RAVENNA AVE	TPH as Gasoline	mg/kg	0.196	95UCL	8.6E+02	--	2E-04	--
24733 RAVENNA AVE	TPH as Motor Oil	mg/kg	863.4	95UCL	1.6E+05	--	5E-03	--
24733 RAVENNA AVE	Trichloroethene	µg/kg	0.18	Max	5.5E+03	1.9E+04	3E-05	1E-10
24733 RAVENNA AVE	Xylenes, Total	µg/kg	0.352	95UCL	4.7E+05	--	8E-07	--
24735 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.919	95UCL	7.5E+04	--	1E-05	--
24735 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	1.2	Max	7.7E+04	--	2E-05	--
24735 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0172	95UCL	1.9E+05	2.7E+03	9E-08	6E-11
24735 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0419	95UCL	1.1E+04	--	4E-06	--
24735 NEPTUNE AVE	Benzene	µg/kg	0.189	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24735 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.39	Max	3.2E+03	6.7E+00	1E-04	6E-07
24735 NEPTUNE AVE	Ethylbenzene	µg/kg	2.1	Max	4.5E+06	5.1E+04	5E-07	4E-10
24735 NEPTUNE AVE	Naphthalene	mg/kg	0.0216	95UCL	1.4E+02	3.9E+01	2E-04	6E-09
24735 NEPTUNE AVE	Pyrene	mg/kg	0.298	95UCL	6.7E+04	--	5E-06	--
24735 NEPTUNE AVE	Toluene	µg/kg	0.539	95UCL	1.6E+07	--	3E-08	--
24735 NEPTUNE AVE	TPH as Diesel	mg/kg	1621	95UCL	1.9E+03	--	9E-01	--
24735 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.133	95UCL	8.6E+02	--	2E-04	--
24735 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3530	95UCL	1.6E+05	--	2E-02	--
24735 NEPTUNE AVE	Xylenes, Total	µg/kg	0.536	95UCL	4.7E+05	--	1E-06	--
24736 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.32	Max	7.5E+04	--	4E-06	--
24736 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.022	Max	1.9E+05	2.7E+03	1E-07	8E-11
24736 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.00814	95UCL	1.1E+04	--	7E-07	--
24736 MARBELLA AVE	Benzene	µg/kg	0.263	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24736 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.258	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24736 MARBELLA AVE	Cobalt	mg/kg	8.927	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24736 MARBELLA AVE	Ethylbenzene	µg/kg	0.37	Max	4.5E+06	5.1E+04	8E-08	7E-11
24736 MARBELLA AVE	Naphthalene	mg/kg	0.00361	95UCL	1.4E+02	3.9E+01	3E-05	9E-10
24736 MARBELLA AVE	Pyrene	mg/kg	0.082	95UCL	6.7E+04	--	1E-06	--
24736 MARBELLA AVE	Toluene	µg/kg	0.268	95UCL	1.6E+07	--	2E-08	--
24736 MARBELLA AVE	TPH as Diesel	mg/kg	136.5	95UCL	1.9E+03	--	7E-02	--
24736 MARBELLA AVE	TPH as Gasoline	mg/kg	0.0918	95UCL	8.6E+02	--	1E-04	--
24736 MARBELLA AVE	TPH as Motor Oil	mg/kg	438.3	95UCL	1.6E+05	--	3E-03	--
24736 MARBELLA AVE	Xylenes, Total	µg/kg	0.24	Max	4.7E+05	--	5E-07	--
24736 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1476	95UCL	7.5E+04	--	2E-02	--
24736 RAVENNA AVE	1,2-Dichloropropane	µg/kg	2.8	Max	1.2E+04	8.5E+03	2E-04	3E-09
24736 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	375.2	95UCL	7.7E+04	--	5E-03	--
24736 RAVENNA AVE	1-Methylnaphthalene	mg/kg	7.392	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
24736 RAVENNA AVE	2-Methylnaphthalene	mg/kg	16.4	95UCL	1.1E+04	--	2E-03	--
24736 RAVENNA AVE	Benzene	µg/kg	112.4	95UCL	6.9E+04	2.2E+03	2E-03	5E-07
24736 RAVENNA AVE	Ethylbenzene	µg/kg	690.8	95UCL	4.5E+06	5.1E+04	2E-04	1E-07
24736 RAVENNA AVE	Naphthalene	mg/kg	5.104	95UCL	1.4E+02	3.9E+01	4E-02	1E-06

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24736 RAVENNA AVE	Pyrene	mg/kg	1.252	95UCL	6.7E+04	--	2E-05	--
24736 RAVENNA AVE	Toluene	µg/kg	17.29	95UCL	1.6E+07	--	1E-06	--
24736 RAVENNA AVE	TPH as Diesel	mg/kg	5527	95UCL	1.9E+03	--	3E+00	--
24736 RAVENNA AVE	TPH as Gasoline	mg/kg	289	95UCL	8.6E+02	--	3E-01	--
24736 RAVENNA AVE	TPH as Motor Oil	mg/kg	6060	95UCL	1.6E+05	--	4E-02	--
24736 RAVENNA AVE	Xylenes, Total	µg/kg	551.7	95UCL	4.7E+05	--	1E-03	--
24737 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	42.12	95UCL	7.5E+04	--	6E-04	--
24737 MARBELLA AVE	1,3,5-Trimethylbenzene	µg/kg	67	Max	7.7E+04	--	9E-04	--
24737 MARBELLA AVE	1-Methylnaphthalene	mg/kg	2.533	95UCL	1.9E+05	2.7E+03	1E-05	1E-08
24737 MARBELLA AVE	2-Methylnaphthalene	mg/kg	7.399	95UCL	1.1E+04	--	7E-04	--
24737 MARBELLA AVE	Benzene	µg/kg	6.619	95UCL	6.9E+04	2.2E+03	1E-04	3E-08
24737 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	6.3E+04	6.4E+03	3E-06	3E-10
24737 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.427	95UCL	3.2E+03	6.7E+00	1E-04	6E-07
24737 MARBELLA AVE	Ethylbenzene	µg/kg	26.33	95UCL	4.5E+06	5.1E+04	6E-06	5E-09
24737 MARBELLA AVE	Naphthalene	mg/kg	2.603	95UCL	1.4E+02	3.9E+01	2E-02	7E-07
24737 MARBELLA AVE	Pyrene	mg/kg	0.749	95UCL	6.7E+04	--	1E-05	--
24737 MARBELLA AVE	Tetrachloroethene	µg/kg	0.42	Max	8.6E+04	1.0E+04	5E-06	4E-10
24737 MARBELLA AVE	Toluene	µg/kg	0.289	95UCL	1.6E+07	--	2E-08	--
24737 MARBELLA AVE	TPH as Diesel	mg/kg	5141	95UCL	1.9E+03	--	3E+00	--
24737 MARBELLA AVE	TPH as Gasoline	mg/kg	209	95UCL	8.6E+02	--	2E-01	--
24737 MARBELLA AVE	TPH as Motor Oil	mg/kg	6435	95UCL	1.6E+05	--	4E-02	--
24737 MARBELLA AVE	Xylenes, Total	µg/kg	210	Max	4.7E+05	--	5E-04	--
24738 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	13235	95UCL	7.5E+04	--	2E-01	--
24738 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	3041	95UCL	7.7E+04	--	4E-02	--
24738 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	9.694	95UCL	1.9E+05	2.7E+03	5E-05	4E-08
24738 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	23.75	95UCL	1.1E+04	--	2E-03	--
24738 NEPTUNE AVE	Benzene	µg/kg	4470	95UCL	6.9E+04	2.2E+03	7E-02	2E-05
24738 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.171	95UCL	3.2E+03	6.7E+00	5E-05	3E-07
24738 NEPTUNE AVE	Ethylbenzene	µg/kg	3625	95UCL	4.5E+06	5.1E+04	8E-04	7E-07
24738 NEPTUNE AVE	Naphthalene	mg/kg	8.857	95UCL	1.4E+02	3.9E+01	6E-02	2E-06
24738 NEPTUNE AVE	Pyrene	mg/kg	2.631	95UCL	6.7E+04	--	4E-05	--
24738 NEPTUNE AVE	Tetrachloroethene	µg/kg	37	Max	8.6E+04	1.0E+04	4E-04	4E-08
24738 NEPTUNE AVE	Toluene	µg/kg	10185	95UCL	1.6E+07	--	6E-04	--
24738 NEPTUNE AVE	TPH as Diesel	mg/kg	8002	95UCL	1.9E+03	--	4E+00	--
24738 NEPTUNE AVE	TPH as Gasoline	mg/kg	1871	95UCL	8.6E+02	--	2E+00	--
24738 NEPTUNE AVE	TPH as Motor Oil	mg/kg	8607	95UCL	1.6E+05	--	5E-02	--
24738 NEPTUNE AVE	Xylenes, Total	µg/kg	28276	95UCL	4.7E+05	--	6E-02	--
24738 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.36	Max	8.3E+05	5.7E+03	4E-07	6E-10
24738 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.371	95UCL	7.5E+04	--	5E-06	--
24738 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.26	Max	7.7E+04	--	3E-06	--
24738 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.161	95UCL	1.9E+05	2.7E+03	8E-07	6E-10
24738 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.246	95UCL	1.1E+04	--	2E-05	--
24738 PANAMA AVE	Benzene	µg/kg	0.184	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24738 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.43	Max	6.3E+04	6.4E+03	7E-06	7E-10
24738 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.274	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24738 PANAMA AVE	Ethylbenzene	µg/kg	0.472	95UCL	4.5E+06	5.1E+04	1E-07	9E-11
24738 PANAMA AVE	Naphthalene	mg/kg	0.0452	95UCL	1.4E+02	3.9E+01	3E-04	1E-08
24738 PANAMA AVE	Pyrene	mg/kg	3.992	95UCL	6.7E+04	--	6E-05	--
24738 PANAMA AVE	Toluene	µg/kg	0.292	95UCL	1.6E+07	--	2E-08	--
24738 PANAMA AVE	TPH as Diesel	mg/kg	1976	95UCL	1.9E+03	--	1E+00	--
24738 PANAMA AVE	TPH as Gasoline	mg/kg	89	Max	8.6E+02	--	1E-01	--
24738 PANAMA AVE	TPH as Motor Oil	mg/kg	3578	95UCL	1.6E+05	--	2E-02	--
24738 PANAMA AVE	Trichloroethene	µg/kg	0.25	Max	5.5E+03	1.9E+04	5E-05	1E-10
24738 PANAMA AVE	Xylenes, Total	µg/kg	0.92	95UCL	4.7E+05	--	2E-06	--
24739 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.248	95UCL	7.5E+04	--	3E-06	--
24739 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.18	Max	7.7E+04	--	2E-06	--
24739 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.0241	95UCL	1.9E+05	2.7E+03	1E-07	9E-11
24739 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0509	95UCL	1.1E+04	--	5E-06	--
24739 NEPTUNE AVE	Benzene	µg/kg	0.155	95UCL	6.9E+04	2.2E+03	2E-06	7E-10
24739 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.42	Max	6.3E+04	6.4E+03	7E-06	7E-10
24739 NEPTUNE AVE	Bromomethane	µg/kg	2	Max	7.8E+03	--	3E-04	--

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24739 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.261	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24739 NEPTUNE AVE	Naphthalene	mg/kg	0.00735	95UCL	1.4E+02	3.9E+01	5E-05	2E-09
24739 NEPTUNE AVE	Pyrene	mg/kg	0.408	95UCL	6.7E+04	--	6E-06	--
24739 NEPTUNE AVE	Toluene	µg/kg	0.184	95UCL	1.6E+07	--	1E-08	--
24739 NEPTUNE AVE	TPH as Diesel	mg/kg	1415	95UCL	1.9E+03	--	7E-01	--
24739 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.0729	95UCL	8.6E+02	--	9E-05	--
24739 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3197	95UCL	1.6E+05	--	2E-02	--
24739 NEPTUNE AVE	Trichloroethene	µg/kg	0.18	Max	5.5E+03	1.9E+04	3E-05	1E-10
24739 NEPTUNE AVE	Xylenes, Total	µg/kg	0.208	95UCL	4.7E+05	--	4E-07	--
24739 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	7473	95UCL	7.5E+04	--	1E-01	--
24739 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	866	95UCL	7.7E+04	--	1E-02	--
24739 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.5	Max	8.7E+06	2.8E+04	6E-08	2E-10
24739 PANAMA AVE	1-Methylnaphthalene	mg/kg	6.084	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24739 PANAMA AVE	2-Methylnaphthalene	mg/kg	9.747	95UCL	1.1E+04	--	9E-04	--
24739 PANAMA AVE	Benzene	µg/kg	248.2	95UCL	6.9E+04	2.2E+03	4E-03	1E-06
24739 PANAMA AVE	Bromomethane	µg/kg	72.57	95UCL	7.8E+03	--	9E-03	--
24739 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.24	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24739 PANAMA AVE	Ethylbenzene	µg/kg	957.6	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24739 PANAMA AVE	Methylene Chloride	µg/kg	5.21	95UCL	1.2E+06	5.9E+04	4E-06	9E-10
24739 PANAMA AVE	Naphthalene	mg/kg	5.346	95UCL	1.4E+02	3.9E+01	4E-02	1E-06
24739 PANAMA AVE	Pyrene	mg/kg	1.003	95UCL	6.7E+04	--	2E-05	--
24739 PANAMA AVE	Toluene	µg/kg	52.99	95UCL	1.6E+07	--	3E-06	--
24739 PANAMA AVE	TPH as Diesel	mg/kg	5246	95UCL	1.9E+03	--	3E+00	--
24739 PANAMA AVE	TPH as Gasoline	mg/kg	638.7	95UCL	8.6E+02	--	7E-01	--
24739 PANAMA AVE	TPH as Motor Oil	mg/kg	12134	95UCL	1.6E+05	--	8E-02	--
24739 PANAMA AVE	Xylenes, Total	µg/kg	2431	95UCL	4.7E+05	--	5E-03	--
24739 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	9412	95UCL	7.5E+04	--	1E-01	--
24739 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	1972	95UCL	7.7E+04	--	3E-02	--
24739 RAVENNA AVE	1,4-Dichlorobenzene	µg/kg	0.36	Max	8.7E+06	2.8E+04	4E-08	1E-10
24739 RAVENNA AVE	1-Methylnaphthalene	mg/kg	27.5	95UCL	1.9E+05	2.7E+03	1E-04	1E-07
24739 RAVENNA AVE	2-Methylnaphthalene	mg/kg	41.49	95UCL	1.1E+04	--	4E-03	--
24739 RAVENNA AVE	Benzene	µg/kg	3386	95UCL	6.9E+04	2.2E+03	5E-02	2E-05
24739 RAVENNA AVE	Bromomethane	µg/kg	270	Max	7.8E+03	--	4E-02	--
24739 RAVENNA AVE	Ethylbenzene	µg/kg	6275	95UCL	4.5E+06	5.1E+04	1E-03	1E-06
24739 RAVENNA AVE	Naphthalene	mg/kg	16.35	95UCL	1.4E+02	3.9E+01	1E-01	4E-06
24739 RAVENNA AVE	Pyrene	mg/kg	3.993	95UCL	6.7E+04	--	6E-05	--
24739 RAVENNA AVE	Toluene	µg/kg	6369	95UCL	1.6E+07	--	4E-04	--
24739 RAVENNA AVE	TPH as Diesel	mg/kg	12401	95UCL	1.9E+03	--	7E+00	--
24739 RAVENNA AVE	TPH as Gasoline	mg/kg	1421	95UCL	8.6E+02	--	2E+00	--
24739 RAVENNA AVE	TPH as Motor Oil	mg/kg	12761	95UCL	1.6E+05	--	8E-02	--
24739 RAVENNA AVE	Xylenes, Total	µg/kg	15623	95UCL	4.7E+05	--	3E-02	--
24740 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.499	95UCL	1.9E+05	2.7E+03	3E-06	2E-09
24740 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.181	95UCL	1.1E+04	--	2E-05	--
24740 MARBELLA AVE	Benzene	µg/kg	0.212	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
24740 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.3	Max	6.3E+04	6.4E+03	5E-06	5E-10
24740 MARBELLA AVE	Bromomethane	µg/kg	1.753	95UCL	7.8E+03	--	2E-04	--
24740 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.305	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24740 MARBELLA AVE	Ethylbenzene	µg/kg	0.18	Max	4.5E+06	5.1E+04	4E-08	4E-11
24740 MARBELLA AVE	Naphthalene	mg/kg	0.0195	95UCL	1.4E+02	3.9E+01	1E-04	5E-09
24740 MARBELLA AVE	Pyrene	mg/kg	0.754	95UCL	6.7E+04	--	1E-05	--
24740 MARBELLA AVE	Tetrachloroethene	µg/kg	0.47	Max	8.6E+04	1.0E+04	6E-06	5E-10
24740 MARBELLA AVE	Toluene	µg/kg	0.265	95UCL	1.6E+07	--	2E-08	--
24740 MARBELLA AVE	TPH as Diesel	mg/kg	1449	95UCL	1.9E+03	--	8E-01	--
24740 MARBELLA AVE	TPH as Gasoline	mg/kg	85.02	95UCL	8.6E+02	--	1E-01	--
24740 MARBELLA AVE	TPH as Motor Oil	mg/kg	1313	95UCL	1.6E+05	--	8E-03	--
24740 MARBELLA AVE	Xylenes, Total	µg/kg	0.214	95UCL	4.7E+05	--	5E-07	--
24741 MARBELLA AVE	1-Methylnaphthalene	mg/kg	0.0072	Max	1.9E+05	2.7E+03	4E-08	3E-11
24741 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.0123	95UCL	1.1E+04	--	1E-06	--
24741 MARBELLA AVE	Bromomethane	µg/kg	2.1	Max	7.8E+03	--	3E-04	--
24741 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.311	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24741 MARBELLA AVE	Naphthalene	mg/kg	0.00568	95UCL	1.4E+02	3.9E+01	4E-05	2E-09

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24741 MARBELLA AVE	Pyrene	mg/kg	0.0261	95UCL	6.7E+04	--	4E-07	--
24741 MARBELLA AVE	Tetrachloroethene	µg/kg	0.46	Max	8.6E+04	1.0E+04	5E-06	5E-10
24741 MARBELLA AVE	Toluene	µg/kg	0.251	95UCL	1.6E+07	--	2E-08	--
24741 MARBELLA AVE	TPH as Diesel	mg/kg	360.7	95UCL	1.9E+03	--	2E-01	--
24741 MARBELLA AVE	TPH as Gasoline	mg/kg	0.21	Max	8.6E+02	--	2E-04	--
24741 MARBELLA AVE	TPH as Motor Oil	mg/kg	1095	95UCL	1.6E+05	--	7E-03	--
24743 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	1526	95UCL	7.5E+04	--	2E-02	--
24743 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	468.7	95UCL	7.7E+04	--	6E-03	--
24743 RAVENNA AVE	1-Methylnaphthalene	mg/kg	10.73	95UCL	1.9E+05	2.7E+03	6E-05	4E-08
24743 RAVENNA AVE	2-Methylnaphthalene	mg/kg	16.11	95UCL	1.1E+04	--	2E-03	--
24743 RAVENNA AVE	Benzene	µg/kg	707.9	95UCL	6.9E+04	2.2E+03	1E-02	3E-06
24743 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	6.9	Max	6.3E+04	6.4E+03	1E-04	1E-08
24743 RAVENNA AVE	Bromomethane	µg/kg	160	Max	7.8E+03	--	2E-02	--
24743 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.54	95UCL	3.2E+03	6.7E+00	2E-04	8E-07
24743 RAVENNA AVE	Ethylbenzene	µg/kg	633	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24743 RAVENNA AVE	Naphthalene	mg/kg	5.979	95UCL	1.4E+02	3.9E+01	4E-02	2E-06
24743 RAVENNA AVE	Pyrene	mg/kg	1.858	95UCL	6.7E+04	--	3E-05	--
24743 RAVENNA AVE	Toluene	µg/kg	1147	95UCL	1.6E+07	--	7E-05	--
24743 RAVENNA AVE	TPH as Diesel	mg/kg	8659	95UCL	1.9E+03	--	5E+00	--
24743 RAVENNA AVE	TPH as Gasoline	mg/kg	271.2	95UCL	8.6E+02	--	3E-01	--
24743 RAVENNA AVE	TPH as Motor Oil	mg/kg	13466	95UCL	1.6E+05	--	8E-02	--
24743 RAVENNA AVE	Xylenes, Total	µg/kg	1850	95UCL	4.7E+05	--	4E-03	--
24744 MARBELLA AVE	1,2,4-Trimethylbenzene	µg/kg	0.31	Max	7.5E+04	--	4E-06	--
24744 MARBELLA AVE	1-Methylnaphthalene	mg/kg	1.037	95UCL	1.9E+05	2.7E+03	5E-06	4E-09
24744 MARBELLA AVE	2-Methylnaphthalene	mg/kg	0.872	95UCL	1.1E+04	--	8E-05	--
24744 MARBELLA AVE	Benzene	µg/kg	0.22	Max	6.9E+04	2.2E+03	3E-06	1E-09
24744 MARBELLA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.25	Max	6.3E+04	6.4E+03	4E-06	4E-10
24744 MARBELLA AVE	Bromomethane	µg/kg	2.5	Max	7.8E+03	--	3E-04	--
24744 MARBELLA AVE	Chromium, Hexavalent	mg/kg	0.298	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24744 MARBELLA AVE	Naphthalene	mg/kg	0.111	95UCL	1.4E+02	3.9E+01	8E-04	3E-08
24744 MARBELLA AVE	Pyrene	mg/kg	0.598	95UCL	6.7E+04	--	9E-06	--
24744 MARBELLA AVE	Tetrachloroethene	µg/kg	1.9	Max	8.6E+04	1.0E+04	2E-05	2E-09
24744 MARBELLA AVE	Toluene	µg/kg	0.21	Max	1.6E+07	--	1E-08	--
24744 MARBELLA AVE	TPH as Diesel	mg/kg	4009	95UCL	1.9E+03	--	2E+00	--
24744 MARBELLA AVE	TPH as Gasoline	mg/kg	0.213	95UCL	8.6E+02	--	3E-04	--
24744 MARBELLA AVE	TPH as Motor Oil	mg/kg	7352	95UCL	1.6E+05	--	5E-02	--
24744 MARBELLA AVE	Trichloroethene	µg/kg	0.91	Max	5.5E+03	1.9E+04	2E-04	5E-10
24748 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	447.8	95UCL	7.5E+04	--	6E-03	--
24748 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	38.7	95UCL	7.7E+04	--	5E-04	--
24748 RAVENNA AVE	1-Methylnaphthalene	mg/kg	11.96	95UCL	1.9E+05	2.7E+03	6E-05	5E-08
24748 RAVENNA AVE	2,4-Dinitrotoluene	mg/kg	0.074	Max	6.3E+03	2.8E+02	1E-05	3E-09
24748 RAVENNA AVE	2-Methylnaphthalene	mg/kg	17.42	95UCL	1.1E+04	--	2E-03	--
24748 RAVENNA AVE	Benzene	µg/kg	44.72	95UCL	6.9E+04	2.2E+03	7E-04	2E-07
24748 RAVENNA AVE	Bromomethane	µg/kg	1.6	Max	7.8E+03	--	2E-04	--
24748 RAVENNA AVE	Chromium, Hexavalent	mg/kg	0.34	Max	3.2E+03	6.7E+00	1E-04	5E-07
24748 RAVENNA AVE	Ethylbenzene	µg/kg	820.5	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24748 RAVENNA AVE	Naphthalene	mg/kg	7.34	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24748 RAVENNA AVE	Pyrene	mg/kg	1.479	95UCL	6.7E+04	--	2E-05	--
24748 RAVENNA AVE	Toluene	µg/kg	3.529	95UCL	1.6E+07	--	2E-07	--
24748 RAVENNA AVE	TPH as Diesel	mg/kg	4224	95UCL	1.9E+03	--	2E+00	--
24748 RAVENNA AVE	TPH as Gasoline	mg/kg	440	95UCL	8.6E+02	--	5E-01	--
24748 RAVENNA AVE	TPH as Motor Oil	mg/kg	4460	95UCL	1.6E+05	--	3E-02	--
24748 RAVENNA AVE	Xylenes, Total	µg/kg	221.6	95UCL	4.7E+05	--	5E-04	--
24749 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	812.7	95UCL	7.5E+04	--	1E-02	--
24749 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	103.8	95UCL	7.7E+04	--	1E-03	--
24749 RAVENNA AVE	1-Methylnaphthalene	mg/kg	5.053	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24749 RAVENNA AVE	2-Methylnaphthalene	mg/kg	10.71	95UCL	1.1E+04	--	1E-03	--
24749 RAVENNA AVE	Benzene	µg/kg	266.8	95UCL	6.9E+04	2.2E+03	4E-03	1E-06
24749 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.5	Max	6.3E+04	6.4E+03	2E-05	2E-09
24749 RAVENNA AVE	Ethylbenzene	µg/kg	578.7	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
24749 RAVENNA AVE	Naphthalene	mg/kg	3.553	95UCL	1.4E+02	3.9E+01	3E-02	9E-07

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24749 RAVENNA AVE	Pyrene	mg/kg	1.672	95UCL	6.7E+04	--	3E-05	--
24749 RAVENNA AVE	Toluene	µg/kg	0.516	95UCL	1.6E+07	--	3E-08	--
24749 RAVENNA AVE	TPH as Diesel	mg/kg	6826	95UCL	1.9E+03	--	4E+00	--
24749 RAVENNA AVE	TPH as Gasoline	mg/kg	261.8	95UCL	8.6E+02	--	3E-01	--
24749 RAVENNA AVE	TPH as Motor Oil	mg/kg	8955	95UCL	1.6E+05	--	6E-02	--
24749 RAVENNA AVE	Xylenes, Total	µg/kg	200.7	95UCL	4.7E+05	--	4E-04	--
24752 RAVENNA AVE	1,2,4-Trimethylbenzene	µg/kg	998.8	95UCL	7.5E+04	--	1E-02	--
24752 RAVENNA AVE	1,3,5-Trimethylbenzene	µg/kg	62.38	95UCL	7.7E+04	--	8E-04	--
24752 RAVENNA AVE	1-Methylnaphthalene	mg/kg	6.277	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24752 RAVENNA AVE	2-Methylnaphthalene	mg/kg	13.25	95UCL	1.1E+04	--	1E-03	--
24752 RAVENNA AVE	Benzene	µg/kg	18.41	95UCL	6.9E+04	2.2E+03	3E-04	8E-08
24752 RAVENNA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.63	Max	6.3E+04	6.4E+03	1E-05	1E-09
24752 RAVENNA AVE	Bromomethane	µg/kg	340	Max	7.8E+03	--	4E-02	--
24752 RAVENNA AVE	Ethylbenzene	µg/kg	220.1	95UCL	4.5E+06	5.1E+04	5E-05	4E-08
24752 RAVENNA AVE	Naphthalene	mg/kg	5.282	95UCL	1.4E+02	3.9E+01	4E-02	1E-06
24752 RAVENNA AVE	Pyrene	mg/kg	0.992	95UCL	6.7E+04	--	2E-05	--
24752 RAVENNA AVE	Toluene	µg/kg	5.522	95UCL	1.6E+07	--	3E-07	--
24752 RAVENNA AVE	TPH as Diesel	mg/kg	4161	95UCL	1.9E+03	--	2E+00	--
24752 RAVENNA AVE	TPH as Gasoline	mg/kg	197.2	95UCL	8.6E+02	--	2E-01	--
24752 RAVENNA AVE	TPH as Motor Oil	mg/kg	4568	95UCL	1.6E+05	--	3E-02	--
24752 RAVENNA AVE	Xylenes, Total	µg/kg	283.5	95UCL	4.7E+05	--	6E-04	--
24802 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1.906	95UCL	7.5E+04	--	3E-05	--
24802 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	1.442	95UCL	7.7E+04	--	2E-05	--
24802 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.138	95UCL	1.9E+05	2.7E+03	7E-07	5E-10
24802 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.206	95UCL	1.1E+04	--	2E-05	--
24802 PANAMA AVE	Benzene	µg/kg	0.195	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24802 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.64	Max	6.3E+04	6.4E+03	1E-05	1E-09
24802 PANAMA AVE	Bromomethane	µg/kg	160	Max	7.8E+03	--	2E-02	--
24802 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.23	95UCL	3.2E+03	6.7E+00	7E-05	3E-07
24802 PANAMA AVE	Ethylbenzene	µg/kg	0.162	95UCL	4.5E+06	5.1E+04	4E-08	3E-11
24802 PANAMA AVE	Naphthalene	mg/kg	0.0341	95UCL	1.4E+02	3.9E+01	2E-04	9E-09
24802 PANAMA AVE	Pyrene	mg/kg	0.375	95UCL	6.7E+04	--	6E-06	--
24802 PANAMA AVE	Toluene	µg/kg	1.185	95UCL	1.6E+07	--	7E-08	--
24802 PANAMA AVE	TPH as Diesel	mg/kg	1012	95UCL	1.9E+03	--	5E-01	--
24802 PANAMA AVE	TPH as Gasoline	mg/kg	43.96	95UCL	8.6E+02	--	5E-02	--
24802 PANAMA AVE	TPH as Motor Oil	mg/kg	1871	95UCL	1.6E+05	--	1E-02	--
24802 PANAMA AVE	Trichloroethene	µg/kg	0.36	Max	5.5E+03	1.9E+04	7E-05	2E-10
24802 PANAMA AVE	Xylenes, Total	µg/kg	2.013	95UCL	4.7E+05	--	4E-06	--
24803 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.228	95UCL	7.5E+04	--	3E-06	--
24803 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.092	Max	1.9E+05	2.7E+03	5E-07	3E-10
24803 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0371	95UCL	1.1E+04	--	3E-06	--
24803 NEPTUNE AVE	Benzene	µg/kg	0.216	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
24803 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.241	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24803 NEPTUNE AVE	Naphthalene	mg/kg	0.00203	95UCL	1.4E+02	3.9E+01	1E-05	5E-10
24803 NEPTUNE AVE	Pyrene	mg/kg	0.0974	95UCL	6.7E+04	--	2E-06	--
24803 NEPTUNE AVE	Toluene	µg/kg	0.269	95UCL	1.6E+07	--	2E-08	--
24803 NEPTUNE AVE	TPH as Diesel	mg/kg	1216	95UCL	1.9E+03	--	6E-01	--
24803 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.22	Max	8.6E+02	--	3E-04	--
24803 NEPTUNE AVE	TPH as Motor Oil	mg/kg	2770	95UCL	1.6E+05	--	2E-02	--
24803 NEPTUNE AVE	Xylenes, Total	µg/kg	0.58	Max	4.7E+05	--	1E-06	--
24803 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	3894	95UCL	7.5E+04	--	5E-02	--
24803 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	980	Max	7.7E+04	--	1E-02	--
24803 PANAMA AVE	1-Methylnaphthalene	mg/kg	10.59	95UCL	1.9E+05	2.7E+03	6E-05	4E-08
24803 PANAMA AVE	2-Methylnaphthalene	mg/kg	16.41	95UCL	1.1E+04	--	2E-03	--
24803 PANAMA AVE	Benzene	µg/kg	444.7	95UCL	6.9E+04	2.2E+03	6E-03	2E-06
24803 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.4	Max	3.2E+03	6.7E+00	1E-04	6E-07
24803 PANAMA AVE	Ethylbenzene	µg/kg	2550	95UCL	4.5E+06	5.1E+04	6E-04	5E-07
24803 PANAMA AVE	Naphthalene	mg/kg	6.172	95UCL	1.4E+02	3.9E+01	4E-02	2E-06
24803 PANAMA AVE	Pyrene	mg/kg	1.093	95UCL	6.7E+04	--	2E-05	--
24803 PANAMA AVE	Toluene	µg/kg	11.27	95UCL	1.6E+07	--	7E-07	--
24803 PANAMA AVE	TPH as Diesel	mg/kg	2568	95UCL	1.9E+03	--	1E+00	--

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24803 PANAMA AVE	TPH as Gasoline	mg/kg	271.1	95UCL	8.6E+02	--	3E-01	--
24803 PANAMA AVE	TPH as Motor Oil	mg/kg	3011	95UCL	1.6E+05	--	2E-02	--
24803 PANAMA AVE	Xylenes, Total	µg/kg	1384	95UCL	4.7E+05	--	3E-03	--
24809 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.233	95UCL	7.5E+04	--	3E-06	--
24809 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.196	95UCL	1.9E+05	2.7E+03	1E-06	7E-10
24809 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0652	95UCL	1.1E+04	--	6E-06	--
24809 NEPTUNE AVE	Benzene	µg/kg	0.128	95UCL	6.9E+04	2.2E+03	2E-06	6E-10
24809 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.596	95UCL	6.3E+04	6.4E+03	3E-05	3E-09
24809 NEPTUNE AVE	Bromomethane	µg/kg	5.1	Max	7.8E+03	--	7E-04	--
24809 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.39	Max	3.2E+03	6.7E+00	1E-04	6E-07
24809 NEPTUNE AVE	Ethylbenzene	µg/kg	0.14	Max	4.5E+06	5.1E+04	3E-08	3E-11
24809 NEPTUNE AVE	Naphthalene	mg/kg	0.0181	95UCL	1.4E+02	3.9E+01	1E-04	5E-09
24809 NEPTUNE AVE	Pyrene	mg/kg	0.585	95UCL	6.7E+04	--	9E-06	--
24809 NEPTUNE AVE	Toluene	µg/kg	1.081	95UCL	1.6E+07	--	7E-08	--
24809 NEPTUNE AVE	TPH as Diesel	mg/kg	1985	95UCL	1.9E+03	--	1E+00	--
24809 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.132	95UCL	8.6E+02	--	2E-04	--
24809 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3129	95UCL	1.6E+05	--	2E-02	--
24809 NEPTUNE AVE	Xylenes, Total	µg/kg	0.53	Max	4.7E+05	--	1E-06	--
24809 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	4962	95UCL	7.5E+04	--	7E-02	--
24809 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	617.8	95UCL	7.7E+04	--	8E-03	--
24809 PANAMA AVE	1-Methylnaphthalene	mg/kg	11.34	95UCL	1.9E+05	2.7E+03	6E-05	4E-08
24809 PANAMA AVE	2-Methylnaphthalene	mg/kg	18.69	95UCL	1.1E+04	--	2E-03	--
24809 PANAMA AVE	Benzene	µg/kg	604	95UCL	6.9E+04	2.2E+03	9E-03	3E-06
24809 PANAMA AVE	Bromomethane	µg/kg	750	Max	7.8E+03	--	1E-01	--
24809 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.144	95UCL	3.2E+03	6.7E+00	5E-05	2E-07
24809 PANAMA AVE	Ethylbenzene	µg/kg	2463	95UCL	4.5E+06	5.1E+04	5E-04	5E-07
24809 PANAMA AVE	Naphthalene	mg/kg	7.515	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
24809 PANAMA AVE	Pyrene	mg/kg	1.298	95UCL	6.7E+04	--	2E-05	--
24809 PANAMA AVE	Toluene	µg/kg	3.754	95UCL	1.6E+07	--	2E-07	--
24809 PANAMA AVE	TPH as Diesel	mg/kg	3779	95UCL	1.9E+03	--	2E+00	--
24809 PANAMA AVE	TPH as Gasoline	mg/kg	691.2	95UCL	8.6E+02	--	8E-01	--
24809 PANAMA AVE	TPH as Motor Oil	mg/kg	4240	95UCL	1.6E+05	--	3E-02	--
24809 PANAMA AVE	Xylenes, Total	µg/kg	2057	95UCL	4.7E+05	--	4E-03	--
24812 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	0.36	Max	8.3E+05	5.7E+03	4E-07	6E-10
24812 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.157	95UCL	7.5E+04	--	2E-06	--
24812 PANAMA AVE	1,4-Dichlorobenzene	µg/kg	0.17	Max	8.7E+06	2.8E+04	2E-08	6E-11
24812 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0184	95UCL	1.9E+05	2.7E+03	1E-07	7E-11
24812 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0537	95UCL	1.1E+04	--	5E-06	--
24812 PANAMA AVE	Benzene	µg/kg	0.151	95UCL	6.9E+04	2.2E+03	2E-06	7E-10
24812 PANAMA AVE	Bromomethane	µg/kg	1.8	Max	7.8E+03	--	2E-04	--
24812 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.251	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
24812 PANAMA AVE	Naphthalene	mg/kg	0.0236	95UCL	1.4E+02	3.9E+01	2E-04	6E-09
24812 PANAMA AVE	Pyrene	mg/kg	0.141	95UCL	6.7E+04	--	2E-06	--
24812 PANAMA AVE	Toluene	µg/kg	0.159	95UCL	1.6E+07	--	1E-08	--
24812 PANAMA AVE	TPH as Diesel	mg/kg	528.4	95UCL	1.9E+03	--	3E-01	--
24812 PANAMA AVE	TPH as Gasoline	mg/kg	0.088	Max	8.6E+02	--	1E-04	--
24812 PANAMA AVE	TPH as Motor Oil	mg/kg	1286	95UCL	1.6E+05	--	8E-03	--
24812 PANAMA AVE	Xylenes, Total	µg/kg	0.18	Max	4.7E+05	--	4E-07	--
24813 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	999.3	95UCL	7.5E+04	--	1E-02	--
24813 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	230	95UCL	7.7E+04	--	3E-03	--
24813 PANAMA AVE	1-Methylnaphthalene	mg/kg	18.04	95UCL	1.9E+05	2.7E+03	9E-05	7E-08
24813 PANAMA AVE	2-Methylnaphthalene	mg/kg	31.9	95UCL	1.1E+04	--	3E-03	--
24813 PANAMA AVE	Benzene	µg/kg	196.9	95UCL	6.9E+04	2.2E+03	3E-03	9E-07
24813 PANAMA AVE	Cobalt	mg/kg	9.378	95UCL	2.0E+02	1.1E+02	5E-02	8E-07
24813 PANAMA AVE	Ethylbenzene	µg/kg	908.2	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24813 PANAMA AVE	Naphthalene	mg/kg	13.04	95UCL	1.4E+02	3.9E+01	9E-02	3E-06
24813 PANAMA AVE	Pyrene	mg/kg	1.718	95UCL	6.7E+04	--	3E-05	--
24813 PANAMA AVE	Toluene	µg/kg	1.5	Max	1.6E+07	--	9E-08	--
24813 PANAMA AVE	TPH as Diesel	mg/kg	5770	95UCL	1.9E+03	--	3E+00	--
24813 PANAMA AVE	TPH as Gasoline	mg/kg	153.3	95UCL	8.6E+02	--	2E-01	--
24813 PANAMA AVE	TPH as Motor Oil	mg/kg	6351	95UCL	1.6E+05	--	4E-02	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24813 PANAMA AVE	Xylenes, Total	µg/kg	463.2	95UCL	4.7E+05	--	1E-03	--
24815 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	79.12	95UCL	7.5E+04	--	1E-03	--
24815 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	210	Max	7.7E+04	--	3E-03	--
24815 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	1.544	95UCL	1.9E+05	2.7E+03	8E-06	6E-09
24815 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	1.494	95UCL	1.1E+04	--	1E-04	--
24815 NEPTUNE AVE	Benzene	µg/kg	0.222	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
24815 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.55	Max	6.3E+04	6.4E+03	9E-06	9E-10
24815 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.3	Max	3.2E+03	6.7E+00	1E-04	5E-07
24815 NEPTUNE AVE	Ethylbenzene	µg/kg	71	Max	4.5E+06	5.1E+04	2E-05	1E-08
24815 NEPTUNE AVE	Naphthalene	mg/kg	0.145	95UCL	1.4E+02	3.9E+01	1E-03	4E-08
24815 NEPTUNE AVE	Pyrene	mg/kg	1.2	95UCL	6.7E+04	--	2E-05	--
24815 NEPTUNE AVE	Toluene	µg/kg	1.872	95UCL	1.6E+07	--	1E-07	--
24815 NEPTUNE AVE	TPH as Diesel	mg/kg	1742	95UCL	1.9E+03	--	9E-01	--
24815 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.953	95UCL	8.6E+02	--	1E-03	--
24815 NEPTUNE AVE	TPH as Motor Oil	mg/kg	3141	95UCL	1.6E+05	--	2E-02	--
24815 NEPTUNE AVE	Xylenes, Total	µg/kg	29.08	95UCL	4.7E+05	--	6E-05	--
24818 PANAMA AVE	1,1,2,2-Tetrachloroethane	µg/kg	420	Max	8.3E+05	5.7E+03	5E-04	7E-07
24818 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	144.6	95UCL	7.5E+04	--	2E-03	--
24818 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	270	Max	7.7E+04	--	4E-03	--
24818 PANAMA AVE	1-Methylnaphthalene	mg/kg	9.967	95UCL	1.9E+05	2.7E+03	5E-05	4E-08
24818 PANAMA AVE	2-Methylnaphthalene	mg/kg	8.949	95UCL	1.1E+04	--	8E-04	--
24818 PANAMA AVE	Benzene	µg/kg	0.358	95UCL	6.9E+04	2.2E+03	5E-06	2E-09
24818 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.29	Max	6.3E+04	6.4E+03	5E-06	5E-10
24818 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.299	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24818 PANAMA AVE	Ethylbenzene	µg/kg	670	Max	4.5E+06	5.1E+04	2E-04	1E-07
24818 PANAMA AVE	Naphthalene	mg/kg	1.287	95UCL	1.4E+02	3.9E+01	9E-03	3E-07
24818 PANAMA AVE	Pyrene	mg/kg	20.76	95UCL	6.7E+04	--	3E-04	--
24818 PANAMA AVE	Toluene	µg/kg	5.434	95UCL	1.6E+07	--	3E-07	--
24818 PANAMA AVE	TPH as Diesel	mg/kg	7446	95UCL	1.9E+03	--	4E+00	--
24818 PANAMA AVE	TPH as Gasoline	mg/kg	109.8	95UCL	8.6E+02	--	1E-01	--
24818 PANAMA AVE	TPH as Motor Oil	mg/kg	10273	95UCL	1.6E+05	--	6E-02	--
24818 PANAMA AVE	Xylenes, Total	µg/kg	46.92	95UCL	4.7E+05	--	1E-04	--
24819 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	1.3	Max	2.0E+03	7.2E+03	7E-04	2E-09
24819 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1713	95UCL	7.5E+04	--	2E-02	--
24819 PANAMA AVE	1,2-Dichloropropane	µg/kg	90	Max	1.2E+04	8.5E+03	7E-03	1E-07
24819 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	260.2	95UCL	7.7E+04	--	3E-03	--
24819 PANAMA AVE	1-Methylnaphthalene	mg/kg	6.395	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
24819 PANAMA AVE	2-Methylnaphthalene	mg/kg	10.51	95UCL	1.1E+04	--	1E-03	--
24819 PANAMA AVE	Benzene	µg/kg	350.5	95UCL	6.9E+04	2.2E+03	5E-03	2E-06
24819 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.9	Max	6.3E+04	6.4E+03	3E-05	3E-09
24819 PANAMA AVE	Bromomethane	µg/kg	257.1	95UCL	7.8E+03	--	3E-02	--
24819 PANAMA AVE	Ethylbenzene	µg/kg	746.7	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
24819 PANAMA AVE	Naphthalene	mg/kg	4.034	95UCL	1.4E+02	3.9E+01	3E-02	1E-06
24819 PANAMA AVE	Pyrene	mg/kg	0.436	95UCL	6.7E+04	--	7E-06	--
24819 PANAMA AVE	Toluene	µg/kg	8.253	95UCL	1.6E+07	--	5E-07	--
24819 PANAMA AVE	TPH as Diesel	mg/kg	3369	95UCL	1.9E+03	--	2E+00	--
24819 PANAMA AVE	TPH as Gasoline	mg/kg	413.4	95UCL	8.6E+02	--	5E-01	--
24819 PANAMA AVE	TPH as Motor Oil	mg/kg	3640	95UCL	1.6E+05	--	2E-02	--
24819 PANAMA AVE	Xylenes, Total	µg/kg	770.7	95UCL	4.7E+05	--	2E-03	--
24822 PANAMA AVE	1,2,3-Trichloropropane	µg/kg	2	Max	2.0E+03	7.2E+03	1E-03	3E-09
24822 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	5.605	95UCL	7.5E+04	--	7E-05	--
24822 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.311	95UCL	7.7E+04	--	4E-06	--
24822 PANAMA AVE	1-Methylnaphthalene	mg/kg	2.427	95UCL	1.9E+05	2.7E+03	1E-05	9E-09
24822 PANAMA AVE	2-Methylnaphthalene	mg/kg	3.452	95UCL	1.1E+04	--	3E-04	--
24822 PANAMA AVE	Benzene	µg/kg	1.071	95UCL	6.9E+04	2.2E+03	2E-05	5E-09
24822 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.63	Max	6.3E+04	6.4E+03	1E-05	1E-09
24822 PANAMA AVE	Bromomethane	µg/kg	1.8	Max	7.8E+03	--	2E-04	--
24822 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.275	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24822 PANAMA AVE	Ethylbenzene	µg/kg	4.756	95UCL	4.5E+06	5.1E+04	1E-06	9E-10
24822 PANAMA AVE	Naphthalene	mg/kg	0.94	95UCL	1.4E+02	3.9E+01	7E-03	2E-07
24822 PANAMA AVE	Pyrene	mg/kg	0.848	95UCL	6.7E+04	--	1E-05	--

Appendix E
Detailed Risk Calculations

Table E-4
CO₂-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24822 PANAMA AVE	Toluene	µg/kg	0.228	95UCL	1.6E+07	--	1E-08	--
24822 PANAMA AVE	TPH as Diesel	mg/kg	6676	95UCL	1.9E+03	--	4E+00	--
24822 PANAMA AVE	TPH as Gasoline	mg/kg	34.46	95UCL	8.6E+02	--	4E-02	--
24822 PANAMA AVE	TPH as Motor Oil	mg/kg	11607	95UCL	1.6E+05	--	7E-02	--
24822 PANAMA AVE	Xylenes, Total	µg/kg	22.36	95UCL	4.7E+05	--	5E-05	--
24823 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	490.5	95UCL	7.5E+04	--	7E-03	--
24823 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	198	95UCL	7.7E+04	--	3E-03	--
24823 PANAMA AVE	1-Methylnaphthalene	mg/kg	3.049	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
24823 PANAMA AVE	2-Methylnaphthalene	mg/kg	6.967	95UCL	1.1E+04	--	6E-04	--
24823 PANAMA AVE	Benzene	µg/kg	45.34	95UCL	6.9E+04	2.2E+03	7E-04	2E-07
24823 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.45	Max	6.3E+04	6.4E+03	7E-06	7E-10
24823 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.12	95UCL	3.2E+03	6.7E+00	4E-05	2E-07
24823 PANAMA AVE	Ethylbenzene	µg/kg	136.8	95UCL	4.5E+06	5.1E+04	3E-05	3E-08
24823 PANAMA AVE	Naphthalene	mg/kg	2.344	95UCL	1.4E+02	3.9E+01	2E-02	6E-07
24823 PANAMA AVE	Pyrene	mg/kg	0.984	95UCL	6.7E+04	--	2E-05	--
24823 PANAMA AVE	Toluene	µg/kg	4.819	95UCL	1.6E+07	--	3E-07	--
24823 PANAMA AVE	TPH as Diesel	mg/kg	4581	95UCL	1.9E+03	--	2E+00	--
24823 PANAMA AVE	TPH as Gasoline	mg/kg	116.4	95UCL	8.6E+02	--	1E-01	--
24823 PANAMA AVE	TPH as Motor Oil	mg/kg	4086	95UCL	1.6E+05	--	3E-02	--
24823 PANAMA AVE	Xylenes, Total	µg/kg	449.9	95UCL	4.7E+05	--	1E-03	--
24825 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	0.192	95UCL	7.5E+04	--	3E-06	--
24825 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.24	Max	8.7E+06	2.8E+04	3E-08	9E-11
24825 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.00323	95UCL	1.9E+05	2.7E+03	2E-08	1E-11
24825 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.0136	95UCL	1.1E+04	--	1E-06	--
24825 NEPTUNE AVE	Benzene	µg/kg	0.145	95UCL	6.9E+04	2.2E+03	2E-06	7E-10
24825 NEPTUNE AVE	Bromomethane	µg/kg	2.724	95UCL	7.8E+03	--	4E-04	--
24825 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.219	95UCL	3.2E+03	6.7E+00	7E-05	3E-07
24825 NEPTUNE AVE	Naphthalene	mg/kg	0.00745	95UCL	1.4E+02	3.9E+01	5E-05	2E-09
24825 NEPTUNE AVE	Pyrene	mg/kg	0.0418	95UCL	6.7E+04	--	6E-07	--
24825 NEPTUNE AVE	Tetrachloroethene	µg/kg	0.28	Max	8.6E+04	1.0E+04	3E-06	3E-10
24825 NEPTUNE AVE	Toluene	µg/kg	0.809	95UCL	1.6E+07	--	5E-08	--
24825 NEPTUNE AVE	TPH as Diesel	mg/kg	94.81	95UCL	1.9E+03	--	5E-02	--
24825 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.238	95UCL	8.6E+02	--	3E-04	--
24825 NEPTUNE AVE	TPH as Motor Oil	mg/kg	465.8	95UCL	1.6E+05	--	3E-03	--
24825 NEPTUNE AVE	Xylenes, Total	µg/kg	0.29	Max	4.7E+05	--	6E-07	--
24828 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	1.4	Max	7.5E+04	--	2E-05	--
24828 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0228	95UCL	1.9E+05	2.7E+03	1E-07	9E-11
24828 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0546	95UCL	1.1E+04	--	5E-06	--
24828 PANAMA AVE	Benzene	µg/kg	0.179	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
24828 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.12	Max	6.3E+04	6.4E+03	2E-06	2E-10
24828 PANAMA AVE	Bromodichloromethane	µg/kg	0.37	Max	4.9E+05	5.3E+03	8E-07	7E-10
24828 PANAMA AVE	Ethylbenzene	µg/kg	0.79	Max	4.5E+06	5.1E+04	2E-07	2E-10
24828 PANAMA AVE	Methylene Chloride	µg/kg	1.5	Max	1.2E+06	5.9E+04	1E-06	3E-10
24828 PANAMA AVE	Naphthalene	mg/kg	0.00542	95UCL	1.4E+02	3.9E+01	4E-05	1E-09
24828 PANAMA AVE	Pyrene	mg/kg	2.468	95UCL	6.7E+04	--	4E-05	--
24828 PANAMA AVE	TPH as Diesel	mg/kg	15101	95UCL	1.9E+03	--	8E+00	--
24828 PANAMA AVE	TPH as Gasoline	mg/kg	2.853	95UCL	8.6E+02	--	3E-03	--
24828 PANAMA AVE	TPH as Motor Oil	mg/kg	25488	95UCL	1.6E+05	--	2E-01	--
24828 PANAMA AVE	Xylenes, Total	µg/kg	1.8	Max	4.7E+05	--	4E-06	--
24829 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	570.7	95UCL	7.5E+04	--	8E-03	--
24829 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	28.92	95UCL	7.7E+04	--	4E-04	--
24829 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.942	95UCL	1.9E+05	2.7E+03	5E-06	4E-09
24829 PANAMA AVE	2-Methylnaphthalene	mg/kg	2.326	95UCL	1.1E+04	--	2E-04	--
24829 PANAMA AVE	Benzene	µg/kg	12.22	95UCL	6.9E+04	2.2E+03	2E-04	6E-08
24829 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	22	Max	6.3E+04	6.4E+03	4E-04	3E-08
24829 PANAMA AVE	Bromomethane	µg/kg	2.1	Max	7.8E+03	--	3E-04	--
24829 PANAMA AVE	Chromium, Hexavalent	mg/kg	4.8	Max	3.2E+03	6.7E+00	2E-03	7E-06
24829 PANAMA AVE	Ethylbenzene	µg/kg	68.25	95UCL	4.5E+06	5.1E+04	2E-05	1E-08
24829 PANAMA AVE	Naphthalene	mg/kg	0.795	95UCL	1.4E+02	3.9E+01	6E-03	2E-07
24829 PANAMA AVE	Pyrene	mg/kg	0.487	95UCL	6.7E+04	--	7E-06	--
24829 PANAMA AVE	Toluene	µg/kg	0.336	95UCL	1.6E+07	--	2E-08	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24829 PANAMA AVE	TPH as Diesel	mg/kg	1129	95UCL	1.9E+03	--	6E-01	--
24829 PANAMA AVE	TPH as Gasoline	mg/kg	40.37	95UCL	8.6E+02	--	5E-02	--
24829 PANAMA AVE	TPH as Motor Oil	mg/kg	1554	95UCL	1.6E+05	--	1E-02	--
24829 PANAMA AVE	Xylenes, Total	µg/kg	153.6	95UCL	4.7E+05	--	3E-04	--
24832 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.495	95UCL	7.5E+04	--	7E-06	--
24832 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.147	95UCL	7.7E+04	--	2E-06	--
24832 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0123	95UCL	1.9E+05	2.7E+03	6E-08	5E-11
24832 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.0732	95UCL	1.1E+04	--	7E-06	--
24832 PANAMA AVE	Benzene	µg/kg	0.196	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
24832 PANAMA AVE	Bromomethane	µg/kg	2.1	Max	7.8E+03	--	3E-04	--
24832 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.29	Max	3.2E+03	6.7E+00	9E-05	4E-07
24832 PANAMA AVE	Ethylbenzene	µg/kg	0.166	95UCL	4.5E+06	5.1E+04	4E-08	3E-11
24832 PANAMA AVE	Naphthalene	mg/kg	0.0347	95UCL	1.4E+02	3.9E+01	3E-04	9E-09
24832 PANAMA AVE	Pyrene	mg/kg	0.539	95UCL	6.7E+04	--	8E-06	--
24832 PANAMA AVE	Toluene	µg/kg	0.193	95UCL	1.6E+07	--	1E-08	--
24832 PANAMA AVE	TPH as Diesel	mg/kg	687.2	95UCL	1.9E+03	--	4E-01	--
24832 PANAMA AVE	TPH as Gasoline	mg/kg	0.0928	95UCL	8.6E+02	--	1E-04	--
24832 PANAMA AVE	TPH as Motor Oil	mg/kg	1110	95UCL	1.6E+05	--	7E-03	--
24832 PANAMA AVE	Vinyl Chloride	µg/kg	0.292	95UCL	8.7E+04	3.1E+02	3E-06	9E-09
24832 PANAMA AVE	Xylenes, Total	µg/kg	0.468	95UCL	4.7E+05	--	1E-06	--
24833 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	2838	95UCL	7.5E+04	--	4E-02	--
24833 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	451.3	95UCL	7.7E+04	--	6E-03	--
24833 PANAMA AVE	1-Methylnaphthalene	mg/kg	1.572	95UCL	1.9E+05	2.7E+03	8E-06	6E-09
24833 PANAMA AVE	2-Methylnaphthalene	mg/kg	4.292	95UCL	1.1E+04	--	4E-04	--
24833 PANAMA AVE	Benzene	µg/kg	88.7	95UCL	6.9E+04	2.2E+03	1E-03	4E-07
24833 PANAMA AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.24	Max	6.3E+04	6.4E+03	4E-06	4E-10
24833 PANAMA AVE	Bromomethane	µg/kg	2	Max	7.8E+03	--	3E-04	--
24833 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.24	Max	3.2E+03	6.7E+00	8E-05	4E-07
24833 PANAMA AVE	Ethylbenzene	µg/kg	662.9	95UCL	4.5E+06	5.1E+04	2E-04	1E-07
24833 PANAMA AVE	Naphthalene	mg/kg	1.928	95UCL	1.4E+02	3.9E+01	1E-02	5E-07
24833 PANAMA AVE	Pyrene	mg/kg	0.877	95UCL	6.7E+04	--	1E-05	--
24833 PANAMA AVE	Toluene	µg/kg	14.8	95UCL	1.6E+07	--	9E-07	--
24833 PANAMA AVE	TPH as Diesel	mg/kg	2277	95UCL	1.9E+03	--	1E+00	--
24833 PANAMA AVE	TPH as Gasoline	mg/kg	171.7	95UCL	8.6E+02	--	2E-01	--
24833 PANAMA AVE	TPH as Motor Oil	mg/kg	2732	95UCL	1.6E+05	--	2E-02	--
24833 PANAMA AVE	Xylenes, Total	µg/kg	2971	95UCL	4.7E+05	--	6E-03	--
24838 PANAMA AVE	1,2,4-Trimethylbenzene	µg/kg	0.32	95UCL	7.5E+04	--	4E-06	--
24838 PANAMA AVE	1,3,5-Trimethylbenzene	µg/kg	0.15	Max	7.7E+04	--	2E-06	--
24838 PANAMA AVE	1-Methylnaphthalene	mg/kg	0.0137	95UCL	1.9E+05	2.7E+03	7E-08	5E-11
24838 PANAMA AVE	2-Methylnaphthalene	mg/kg	0.119	95UCL	1.1E+04	--	1E-05	--
24838 PANAMA AVE	Benzene	µg/kg	0.3	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
24838 PANAMA AVE	Chromium, Hexavalent	mg/kg	0.299	95UCL	3.2E+03	6.7E+00	1E-04	5E-07
24838 PANAMA AVE	Ethylbenzene	µg/kg	0.2	Max	4.5E+06	5.1E+04	4E-08	4E-11
24838 PANAMA AVE	Methylene Chloride	µg/kg	29	Max	1.2E+06	5.9E+04	2E-05	5E-09
24838 PANAMA AVE	Naphthalene	mg/kg	0.0176	95UCL	1.4E+02	3.9E+01	1E-04	5E-09
24838 PANAMA AVE	Pyrene	mg/kg	1.065	95UCL	6.7E+04	--	2E-05	--
24838 PANAMA AVE	Toluene	µg/kg	0.252	95UCL	1.6E+07	--	2E-08	--
24838 PANAMA AVE	TPH as Diesel	mg/kg	3355	95UCL	1.9E+03	--	2E+00	--
24838 PANAMA AVE	TPH as Gasoline	mg/kg	0.0868	95UCL	8.6E+02	--	1E-04	--
24838 PANAMA AVE	TPH as Motor Oil	mg/kg	8022	95UCL	1.6E+05	--	5E-02	--
24838 PANAMA AVE	Xylenes, Total	µg/kg	0.246	95UCL	4.7E+05	--	5E-07	--
24904 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	1.178	95UCL	7.5E+04	--	2E-05	--
24904 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	0.205	95UCL	7.7E+04	--	3E-06	--
24904 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.493	95UCL	1.9E+05	2.7E+03	3E-06	2E-09
24904 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.737	95UCL	1.1E+04	--	7E-05	--
24904 NEPTUNE AVE	Benzene	µg/kg	0.225	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
24904 NEPTUNE AVE	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.19	Max	6.3E+04	6.4E+03	3E-06	3E-10
24904 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.34	Max	3.2E+03	6.7E+00	1E-04	5E-07
24904 NEPTUNE AVE	Ethylbenzene	µg/kg	0.944	95UCL	4.5E+06	5.1E+04	2E-07	2E-10
24904 NEPTUNE AVE	Naphthalene	mg/kg	0.204	95UCL	1.4E+02	3.9E+01	1E-03	5E-08
24904 NEPTUNE AVE	Pyrene	mg/kg	0.549	95UCL	6.7E+04	--	8E-06	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24904 NEPTUNE AVE	Toluene	µg/kg	0.265	95UCL	1.6E+07	--	2E-08	--
24904 NEPTUNE AVE	TPH as Diesel	mg/kg	1025	95UCL	1.9E+03	--	5E-01	--
24904 NEPTUNE AVE	TPH as Gasoline	mg/kg	5.832	95UCL	8.6E+02	--	7E-03	--
24904 NEPTUNE AVE	TPH as Motor Oil	mg/kg	1867	95UCL	1.6E+05	--	1E-02	--
24904 NEPTUNE AVE	Xylenes, Total	µg/kg	0.787	95UCL	4.7E+05	--	2E-06	--
24912 NEPTUNE AVE	1,2,3-Trichloropropane	µg/kg	0.71	Max	2.0E+03	7.2E+03	4E-04	1E-09
24912 NEPTUNE AVE	1,2,4-Trimethylbenzene	µg/kg	4.28	95UCL	7.5E+04	--	6E-05	--
24912 NEPTUNE AVE	1,3,5-Trimethylbenzene	µg/kg	7.9	Max	7.7E+04	--	1E-04	--
24912 NEPTUNE AVE	1,4-Dichlorobenzene	µg/kg	0.2	Max	8.7E+06	2.8E+04	2E-08	7E-11
24912 NEPTUNE AVE	1-Methylnaphthalene	mg/kg	0.094	95UCL	1.9E+05	2.7E+03	5E-07	4E-10
24912 NEPTUNE AVE	2-Methylnaphthalene	mg/kg	0.139	95UCL	1.1E+04	--	1E-05	--
24912 NEPTUNE AVE	Benzene	µg/kg	0.319	95UCL	6.9E+04	2.2E+03	5E-06	1E-09
24912 NEPTUNE AVE	Bromomethane	µg/kg	3.3	Max	7.8E+03	--	4E-04	--
24912 NEPTUNE AVE	Chromium, Hexavalent	mg/kg	0.268	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
24912 NEPTUNE AVE	Ethylbenzene	µg/kg	4.089	95UCL	4.5E+06	5.1E+04	9E-07	8E-10
24912 NEPTUNE AVE	Naphthalene	mg/kg	0.0344	95UCL	1.4E+02	3.9E+01	2E-04	9E-09
24912 NEPTUNE AVE	Pyrene	mg/kg	0.205	95UCL	6.7E+04	--	3E-06	--
24912 NEPTUNE AVE	Toluene	µg/kg	0.326	95UCL	1.6E+07	--	2E-08	--
24912 NEPTUNE AVE	TPH as Diesel	mg/kg	464.1	95UCL	1.9E+03	--	2E-01	--
24912 NEPTUNE AVE	TPH as Gasoline	mg/kg	0.0739	95UCL	8.6E+02	--	9E-05	--
24912 NEPTUNE AVE	TPH as Motor Oil	mg/kg	804.4	95UCL	1.6E+05	--	5E-03	--
24912 NEPTUNE AVE	Xylenes, Total	µg/kg	0.876	95UCL	4.7E+05	--	2E-06	--
301 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.432	95UCL	7.5E+04	--	6E-06	--
301 244TH ST	1-Methylnaphthalene	mg/kg	0.00751	95UCL	1.9E+05	2.7E+03	4E-08	3E-11
301 244TH ST	2-Methylnaphthalene	mg/kg	0.0214	95UCL	1.1E+04	--	2E-06	--
301 244TH ST	Benzene	µg/kg	0.241	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
301 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.493	95UCL	6.3E+04	6.4E+03	8E-06	8E-10
301 244TH ST	Chromium, Hexavalent	mg/kg	0.66	Max	3.2E+03	6.7E+00	2E-04	1E-06
301 244TH ST	Cobalt	mg/kg	11.74	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
301 244TH ST	Naphthalene	mg/kg	0.00946	95UCL	1.4E+02	3.9E+01	7E-05	2E-09
301 244TH ST	Pyrene	mg/kg	0.168	95UCL	6.7E+04	--	3E-06	--
301 244TH ST	Tetrachloroethene	µg/kg	0.62	Max	8.6E+04	1.0E+04	7E-06	6E-10
301 244TH ST	Toluene	µg/kg	0.335	95UCL	1.6E+07	--	2E-08	--
301 244TH ST	TPH as Diesel	mg/kg	146.4	95UCL	1.9E+03	--	8E-02	--
301 244TH ST	TPH as Gasoline	mg/kg	0.098	95UCL	8.6E+02	--	1E-04	--
301 244TH ST	TPH as Motor Oil	mg/kg	365.3	95UCL	1.6E+05	--	2E-03	--
301 244TH ST	Xylenes, Total	µg/kg	0.37	Max	4.7E+05	--	8E-07	--
305 244TH ST	1,2,3-Trichloropropane	µg/kg	0.6	Max	2.0E+03	7.2E+03	3E-04	8E-10
305 244TH ST	1,2,4-Trimethylbenzene	µg/kg	670	Max	7.5E+04	--	9E-03	--
305 244TH ST	1,3,5-Trimethylbenzene	µg/kg	210	Max	7.7E+04	--	3E-03	--
305 244TH ST	1-Methylnaphthalene	mg/kg	2.024	95UCL	1.9E+05	2.7E+03	1E-05	8E-09
305 244TH ST	2-Methylnaphthalene	mg/kg	2.38	95UCL	1.1E+04	--	2E-04	--
305 244TH ST	Benzene	µg/kg	0.157	95UCL	6.9E+04	2.2E+03	2E-06	7E-10
305 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	2.4	Max	6.3E+04	6.4E+03	4E-05	4E-09
305 244TH ST	Bromomethane	µg/kg	1.7	Max	7.8E+03	--	2E-04	--
305 244TH ST	Chromium, Hexavalent	mg/kg	0.254	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
305 244TH ST	Cobalt	mg/kg	11.34	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
305 244TH ST	Ethylbenzene	µg/kg	120	Max	4.5E+06	5.1E+04	3E-05	2E-08
305 244TH ST	Naphthalene	mg/kg	0.142	95UCL	1.4E+02	3.9E+01	1E-03	4E-08
305 244TH ST	Pyrene	mg/kg	10.96	95UCL	6.7E+04	--	2E-04	--
305 244TH ST	Tetrachloroethene	µg/kg	0.48	Max	8.6E+04	1.0E+04	6E-06	5E-10
305 244TH ST	Toluene	µg/kg	9.085	95UCL	1.6E+07	--	6E-07	--
305 244TH ST	TPH as Diesel	mg/kg	13460	95UCL	1.9E+03	--	7E+00	--
305 244TH ST	TPH as Gasoline	mg/kg	9.395	95UCL	8.6E+02	--	1E-02	--
305 244TH ST	TPH as Motor Oil	mg/kg	27368	95UCL	1.6E+05	--	2E-01	--
305 244TH ST	Xylenes, Total	µg/kg	670	Max	4.7E+05	--	1E-03	--
311 244TH ST	1,2,4-Trimethylbenzene	µg/kg	477.3	95UCL	7.5E+04	--	6E-03	--
311 244TH ST	1,3,5-Trimethylbenzene	µg/kg	37.48	95UCL	7.7E+04	--	5E-04	--
311 244TH ST	1-Methylnaphthalene	mg/kg	8.199	95UCL	1.9E+05	2.7E+03	4E-05	3E-08
311 244TH ST	2-Methylnaphthalene	mg/kg	14.61	95UCL	1.1E+04	--	1E-03	--
311 244TH ST	Benzene	µg/kg	14.97	95UCL	6.9E+04	2.2E+03	2E-04	7E-08

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
311 244TH ST	Benzo (a) Anthracene	mg/kg	6.028	95UCL	--	2.6E+02	--	2E-07
311 244TH ST	Benzo (a) Pyrene	mg/kg	3.193	95UCL	--	2.6E+01	--	1E-06
311 244TH ST	Benzo (b) Fluoranthene	mg/kg	1.92	95UCL	--	2.6E+02	--	7E-08
311 244TH ST	Benzo (k) Fluoranthene	mg/kg	0.00678	95UCL	--	2.6E+02	--	3E-10
311 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.334	95UCL	6.3E+04	6.4E+03	5E-06	5E-10
311 244TH ST	Bromomethane	µg/kg	2.1	Max	7.8E+03	--	3E-04	--
311 244TH ST	Chromium, Hexavalent	mg/kg	0.182	95UCL	3.2E+03	6.7E+00	6E-05	3E-07
311 244TH ST	Chrysene	mg/kg	16.88	95UCL	--	2.6E+03	--	7E-08
311 244TH ST	Cobalt	mg/kg	9.628	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
311 244TH ST	Dibenzo (a,h) Anthracene	mg/kg	0.0144	95UCL	--	1.9E+01	--	8E-09
311 244TH ST	Ethylbenzene	µg/kg	74.46	95UCL	4.5E+06	5.1E+04	2E-05	2E-08
311 244TH ST	Indeno (1,2,3-c,d) Pyrene	mg/kg	0.258	95UCL	--	2.6E+02	--	1E-08
311 244TH ST	Naphthalene	mg/kg	2.66	95UCL	1.4E+02	3.9E+01	2E-02	7E-07
311 244TH ST	Pyrene	mg/kg	30.89	95UCL	6.7E+04	--	5E-04	--
311 244TH ST	Toluene	µg/kg	35.7	95UCL	1.6E+07	--	2E-06	--
311 244TH ST	TPH as Diesel	mg/kg	26022	95UCL	1.9E+03	--	1E+01	--
311 244TH ST	TPH as Gasoline	mg/kg	72.65	95UCL	8.6E+02	--	8E-02	--
311 244TH ST	TPH as Motor Oil	mg/kg	51311	95UCL	1.6E+05	--	3E-01	--
311 244TH ST	Vanadium	mg/kg	35.17	95UCL	3.3E+03	--	1E-02	--
311 244TH ST	Xylenes, Total	µg/kg	208.8	95UCL	4.7E+05	--	4E-04	--
317 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.144	95UCL	7.5E+04	--	2E-06	--
317 244TH ST	1,3,5-Trimethylbenzene	µg/kg	0.16	Max	7.7E+04	--	2E-06	--
317 244TH ST	1-Methylnaphthalene	mg/kg	3.17	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
317 244TH ST	2-Methylnaphthalene	mg/kg	2.66	95UCL	1.1E+04	--	2E-04	--
317 244TH ST	Benzene	µg/kg	0.235	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
317 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.64	Max	6.3E+04	6.4E+03	1E-05	1E-09
317 244TH ST	Bromodichloromethane	µg/kg	1.1	Max	4.9E+05	5.3E+03	2E-06	2E-09
317 244TH ST	Cobalt	mg/kg	10.36	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
317 244TH ST	Naphthalene	mg/kg	0.217	95UCL	1.4E+02	3.9E+01	2E-03	6E-08
317 244TH ST	Pyrene	mg/kg	20.84	95UCL	6.7E+04	--	3E-04	--
317 244TH ST	Toluene	µg/kg	0.264	95UCL	1.6E+07	--	2E-08	--
317 244TH ST	TPH as Diesel	mg/kg	12384	95UCL	1.9E+03	--	7E+00	--
317 244TH ST	TPH as Gasoline	mg/kg	0.207	95UCL	8.6E+02	--	2E-04	--
317 244TH ST	TPH as Motor Oil	mg/kg	23974	95UCL	1.6E+05	--	2E-01	--
317 244TH ST	Xylenes, Total	µg/kg	0.31	Max	4.7E+05	--	7E-07	--
321 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.19	Max	7.5E+04	--	3E-06	--
321 244TH ST	1-Methylnaphthalene	mg/kg	0.00352	95UCL	1.9E+05	2.7E+03	2E-08	1E-11
321 244TH ST	2-Methylnaphthalene	mg/kg	0.00801	95UCL	1.1E+04	--	7E-07	--
321 244TH ST	Benzene	µg/kg	0.202	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
321 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.19	Max	6.3E+04	6.4E+03	3E-06	3E-10
321 244TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	3.2E+03	6.7E+00	8E-05	4E-07
321 244TH ST	Cobalt	mg/kg	12.32	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
321 244TH ST	Naphthalene	mg/kg	0.00367	95UCL	1.4E+02	3.9E+01	3E-05	9E-10
321 244TH ST	Pyrene	mg/kg	0.0361	95UCL	6.7E+04	--	5E-07	--
321 244TH ST	Toluene	µg/kg	0.824	95UCL	1.6E+07	--	5E-08	--
321 244TH ST	TPH as Diesel	mg/kg	36.66	95UCL	1.9E+03	--	2E-02	--
321 244TH ST	TPH as Gasoline	mg/kg	0.0777	95UCL	8.6E+02	--	9E-05	--
321 244TH ST	TPH as Motor Oil	mg/kg	157.8	95UCL	1.6E+05	--	1E-03	--
321 244TH ST	Vanadium	mg/kg	43.2	95UCL	3.3E+03	--	1E-02	--
321 244TH ST	Xylenes, Total	µg/kg	0.72	Max	4.7E+05	--	2E-06	--
327 244TH ST	2-Methylnaphthalene	mg/kg	0.00264	95UCL	1.1E+04	--	2E-07	--
327 244TH ST	Benzene	µg/kg	0.147	95UCL	6.9E+04	2.2E+03	2E-06	7E-10
327 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	6.3E+04	6.4E+03	3E-06	3E-10
327 244TH ST	Chromium, Hexavalent	mg/kg	0.76	Max	3.2E+03	6.7E+00	2E-04	1E-06
327 244TH ST	Cobalt	mg/kg	11.46	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
327 244TH ST	Naphthalene	mg/kg	0.0046	Max	1.4E+02	3.9E+01	3E-05	1E-09
327 244TH ST	Pyrene	mg/kg	0.0064	95UCL	6.7E+04	--	1E-07	--
327 244TH ST	Toluene	µg/kg	0.23	Max	1.6E+07	--	1E-08	--
327 244TH ST	TPH as Diesel	mg/kg	64.75	95UCL	1.9E+03	--	3E-02	--
327 244TH ST	TPH as Gasoline	mg/kg	0.056	Max	8.6E+02	--	7E-05	--
327 244TH ST	TPH as Motor Oil	mg/kg	124.6	95UCL	1.6E+05	--	8E-04	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
327 244TH ST	Vanadium	mg/kg	43.76	95UCL	3.3E+03	--	1E-02	--
331 244TH ST	1-Methylnaphthalene	mg/kg	0.004	95UCL	1.9E+05	2.7E+03	2E-08	2E-11
331 244TH ST	2,4-Dinitrotoluene	mg/kg	0.34	Max	6.3E+03	2.8E+02	5E-05	1E-08
331 244TH ST	2-Methylnaphthalene	mg/kg	0.00627	95UCL	1.1E+04	--	6E-07	--
331 244TH ST	Benzene	µg/kg	0.221	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
331 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.73	Max	6.3E+04	6.4E+03	1E-05	1E-09
331 244TH ST	Chromium, Hexavalent	mg/kg	0.6	Max	3.2E+03	6.7E+00	2E-04	9E-07
331 244TH ST	Cobalt	mg/kg	11.99	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
331 244TH ST	Naphthalene	mg/kg	0.00387	95UCL	1.4E+02	3.9E+01	3E-05	1E-09
331 244TH ST	Pyrene	mg/kg	0.167	95UCL	6.7E+04	--	3E-06	--
331 244TH ST	Toluene	µg/kg	0.235	95UCL	1.6E+07	--	1E-08	--
331 244TH ST	TPH as Diesel	mg/kg	64.04	95UCL	1.9E+03	--	3E-02	--
331 244TH ST	TPH as Gasoline	mg/kg	0.0751	95UCL	8.6E+02	--	9E-05	--
331 244TH ST	TPH as Motor Oil	mg/kg	234.3	95UCL	1.6E+05	--	2E-03	--
331 244TH ST	Vanadium	mg/kg	41.43	95UCL	3.3E+03	--	1E-02	--
337 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.19	Max	7.5E+04	--	3E-06	--
337 244TH ST	1-Methylnaphthalene	mg/kg	0.00311	95UCL	1.9E+05	2.7E+03	2E-08	1E-11
337 244TH ST	2-Methylnaphthalene	mg/kg	0.0053	95UCL	1.1E+04	--	5E-07	--
337 244TH ST	Benzene	µg/kg	0.183	95UCL	6.9E+04	2.2E+03	3E-06	8E-10
337 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.361	95UCL	6.3E+04	6.4E+03	6E-06	6E-10
337 244TH ST	Chromium, Hexavalent	mg/kg	0.3	Max	3.2E+03	6.7E+00	1E-04	5E-07
337 244TH ST	Cobalt	mg/kg	10.51	95UCL	2.0E+02	1.1E+02	5E-02	9E-07
337 244TH ST	Ethylbenzene	µg/kg	0.35	Max	4.5E+06	5.1E+04	8E-08	7E-11
337 244TH ST	Naphthalene	mg/kg	0.00528	95UCL	1.4E+02	3.9E+01	4E-05	1E-09
337 244TH ST	Pyrene	mg/kg	0.0181	95UCL	6.7E+04	--	3E-07	--
337 244TH ST	Toluene	µg/kg	0.238	95UCL	1.6E+07	--	2E-08	--
337 244TH ST	TPH as Diesel	mg/kg	403.8	95UCL	1.9E+03	--	2E-01	--
337 244TH ST	TPH as Gasoline	mg/kg	1.153	95UCL	8.6E+02	--	1E-03	--
337 244TH ST	TPH as Motor Oil	mg/kg	504.5	95UCL	1.6E+05	--	3E-03	--
337 244TH ST	Vanadium	mg/kg	38.82	95UCL	3.3E+03	--	1E-02	--
337 244TH ST	Xylenes, Total	µg/kg	0.2	Max	4.7E+05	--	4E-07	--
341 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.152	95UCL	7.5E+04	--	2E-06	--
341 244TH ST	1,4-Dichlorobenzene	µg/kg	0.29	Max	8.7E+06	2.8E+04	3E-08	1E-10
341 244TH ST	1-Methylnaphthalene	mg/kg	0.00246	95UCL	1.9E+05	2.7E+03	1E-08	9E-12
341 244TH ST	2-Methylnaphthalene	mg/kg	0.00294	95UCL	1.1E+04	--	3E-07	--
341 244TH ST	Benzene	µg/kg	0.21	95UCL	6.9E+04	2.2E+03	3E-06	9E-10
341 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.86	Max	6.3E+04	6.4E+03	1E-05	1E-09
341 244TH ST	Bromomethane	µg/kg	13	Max	7.8E+03	--	2E-03	--
341 244TH ST	Chromium, Hexavalent	mg/kg	0.56	Max	3.2E+03	6.7E+00	2E-04	8E-07
341 244TH ST	Cobalt	mg/kg	11.33	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
341 244TH ST	Ethylbenzene	µg/kg	0.16	Max	4.5E+06	5.1E+04	4E-08	3E-11
341 244TH ST	Naphthalene	mg/kg	0.00177	95UCL	1.4E+02	3.9E+01	1E-05	5E-10
341 244TH ST	Pyrene	mg/kg	0.0348	95UCL	6.7E+04	--	5E-07	--
341 244TH ST	Toluene	µg/kg	0.2	95UCL	1.6E+07	--	1E-08	--
341 244TH ST	TPH as Diesel	mg/kg	35.68	95UCL	1.9E+03	--	2E-02	--
341 244TH ST	TPH as Gasoline	mg/kg	0.075	95UCL	8.6E+02	--	9E-05	--
341 244TH ST	TPH as Motor Oil	mg/kg	84.26	95UCL	1.6E+05	--	5E-04	--
341 244TH ST	Xylenes, Total	µg/kg	0.45	Max	4.7E+05	--	1E-06	--
344 249TH ST	1,2,4-Trimethylbenzene	µg/kg	9.086	95UCL	7.5E+04	--	1E-04	--
344 249TH ST	1,3,5-Trimethylbenzene	µg/kg	1.532	95UCL	7.7E+04	--	2E-05	--
344 249TH ST	1-Methylnaphthalene	mg/kg	0.0603	95UCL	1.9E+05	2.7E+03	3E-07	2E-10
344 249TH ST	2-Methylnaphthalene	mg/kg	0.0833	95UCL	1.1E+04	--	8E-06	--
344 249TH ST	Benzene	µg/kg	0.393	95UCL	6.9E+04	2.2E+03	6E-06	2E-09
344 249TH ST	Ethylbenzene	µg/kg	1.11	95UCL	4.5E+06	5.1E+04	2E-07	2E-10
344 249TH ST	Naphthalene	mg/kg	0.0162	95UCL	1.4E+02	3.9E+01	1E-04	4E-09
344 249TH ST	Pyrene	mg/kg	0.568	95UCL	6.7E+04	--	9E-06	--
344 249TH ST	Toluene	µg/kg	0.237	95UCL	1.6E+07	--	1E-08	--
344 249TH ST	TPH as Diesel	mg/kg	775	95UCL	1.9E+03	--	4E-01	--
344 249TH ST	TPH as Gasoline	mg/kg	0.0934	95UCL	8.6E+02	--	1E-04	--
344 249TH ST	TPH as Motor Oil	mg/kg	1881	95UCL	1.6E+05	--	1E-02	--
344 249TH ST	Xylenes, Total	µg/kg	1.257	95UCL	4.7E+05	--	3E-06	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
345 249TH ST	1,2,4-Trimethylbenzene	µg/kg	18.17	95UCL	7.5E+04	--	2E-04	--
345 249TH ST	1,3,5-Trimethylbenzene	µg/kg	1.382	95UCL	7.7E+04	--	2E-05	--
345 249TH ST	1-Methylnaphthalene	mg/kg	1.744	95UCL	1.9E+05	2.7E+03	9E-06	7E-09
345 249TH ST	2-Methylnaphthalene	mg/kg	1.619	95UCL	1.1E+04	--	2E-04	--
345 249TH ST	Benzene	µg/kg	2.61	95UCL	6.9E+04	2.2E+03	4E-05	1E-08
345 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.44	Max	6.3E+04	6.4E+03	7E-06	7E-10
345 249TH ST	Chromium, Hexavalent	mg/kg	0.253	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
345 249TH ST	Ethylbenzene	µg/kg	9.775	95UCL	4.5E+06	5.1E+04	2E-06	2E-09
345 249TH ST	Naphthalene	mg/kg	0.2	95UCL	1.4E+02	3.9E+01	1E-03	5E-08
345 249TH ST	Pyrene	mg/kg	1.749	95UCL	6.7E+04	--	3E-05	--
345 249TH ST	Toluene	µg/kg	2.433	95UCL	1.6E+07	--	2E-07	--
345 249TH ST	TPH as Diesel	mg/kg	3131	95UCL	1.9E+03	--	2E+00	--
345 249TH ST	TPH as Gasoline	mg/kg	4.445	95UCL	8.6E+02	--	5E-03	--
345 249TH ST	TPH as Motor Oil	mg/kg	4529	95UCL	1.6E+05	--	3E-02	--
345 249TH ST	Xylenes, Total	µg/kg	17.59	95UCL	4.7E+05	--	4E-05	--
347 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.213	95UCL	7.5E+04	--	3E-06	--
347 244TH ST	1,3,5-Trimethylbenzene	µg/kg	0.13	Max	7.7E+04	--	2E-06	--
347 244TH ST	1-Methylnaphthalene	mg/kg	0.011	Max	1.9E+05	2.7E+03	6E-08	4E-11
347 244TH ST	2-Methylnaphthalene	mg/kg	0.00367	95UCL	1.1E+04	--	3E-07	--
347 244TH ST	Benzene	µg/kg	0.278	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
347 244TH ST	Chromium, Hexavalent	mg/kg	0.48	Max	3.2E+03	6.7E+00	2E-04	7E-07
347 244TH ST	Cobalt	mg/kg	11.08	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
347 244TH ST	Ethylbenzene	µg/kg	0.41	Max	4.5E+06	5.1E+04	9E-08	8E-11
347 244TH ST	Naphthalene	mg/kg	0.00239	95UCL	1.4E+02	3.9E+01	2E-05	6E-10
347 244TH ST	Pyrene	mg/kg	0.0106	95UCL	6.7E+04	--	2E-07	--
347 244TH ST	Toluene	µg/kg	0.286	95UCL	1.6E+07	--	2E-08	--
347 244TH ST	TPH as Diesel	mg/kg	61.71	95UCL	1.9E+03	--	3E-02	--
347 244TH ST	TPH as Gasoline	mg/kg	0.096	Max	8.6E+02	--	1E-04	--
347 244TH ST	TPH as Motor Oil	mg/kg	196.6	95UCL	1.6E+05	--	1E-03	--
347 244TH ST	Xylenes, Total	µg/kg	0.23	Max	4.7E+05	--	5E-07	--
348 248TH ST	1,2,4-Trimethylbenzene	µg/kg	2754	95UCL	7.5E+04	--	4E-02	--
348 248TH ST	1,3,5-Trimethylbenzene	µg/kg	625.6	95UCL	7.7E+04	--	8E-03	--
348 248TH ST	1-Methylnaphthalene	mg/kg	22.16	95UCL	1.9E+05	2.7E+03	1E-04	8E-08
348 248TH ST	2-Methylnaphthalene	mg/kg	33.99	95UCL	1.1E+04	--	3E-03	--
348 248TH ST	Benzene	µg/kg	509.3	95UCL	6.9E+04	2.2E+03	7E-03	2E-06
348 248TH ST	Bromodichloromethane	µg/kg	0.19	Max	4.9E+05	5.3E+03	4E-07	4E-10
348 248TH ST	Bromomethane	µg/kg	3.7	Max	7.8E+03	--	5E-04	--
348 248TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	3.2E+03	6.7E+00	8E-05	4E-07
348 248TH ST	Ethylbenzene	µg/kg	840.1	95UCL	4.5E+06	5.1E+04	2E-04	2E-07
348 248TH ST	Naphthalene	mg/kg	12.37	95UCL	1.4E+02	3.9E+01	9E-02	3E-06
348 248TH ST	Pyrene	mg/kg	5.926	95UCL	6.7E+04	--	9E-05	--
348 248TH ST	Tetrachloroethene	µg/kg	0.34	Max	8.6E+04	1.0E+04	4E-06	3E-10
348 248TH ST	Toluene	µg/kg	146	95UCL	1.6E+07	--	9E-06	--
348 248TH ST	TPH as Diesel	mg/kg	9153	95UCL	1.9E+03	--	5E+00	--
348 248TH ST	TPH as Gasoline	mg/kg	360.9	95UCL	8.6E+02	--	4E-01	--
348 248TH ST	TPH as Motor Oil	mg/kg	8265	95UCL	1.6E+05	--	5E-02	--
348 248TH ST	Xylenes, Total	µg/kg	1850	95UCL	4.7E+05	--	4E-03	--
348 249TH ST	1,2,4-Trimethylbenzene	µg/kg	34.46	95UCL	7.5E+04	--	5E-04	--
348 249TH ST	1,3,5-Trimethylbenzene	µg/kg	13.74	95UCL	7.7E+04	--	2E-04	--
348 249TH ST	1-Methylnaphthalene	mg/kg	0.189	95UCL	1.9E+05	2.7E+03	1E-06	7E-10
348 249TH ST	2-Methylnaphthalene	mg/kg	0.221	95UCL	1.1E+04	--	2E-05	--
348 249TH ST	Benzene	µg/kg	0.566	95UCL	6.9E+04	2.2E+03	8E-06	3E-09
348 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.35	Max	6.3E+04	6.4E+03	6E-06	6E-10
348 249TH ST	Bromomethane	µg/kg	300	Max	7.8E+03	--	4E-02	--
348 249TH ST	Chromium, Hexavalent	mg/kg	0.468	95UCL	3.2E+03	6.7E+00	2E-04	7E-07
348 249TH ST	Ethylbenzene	µg/kg	4.271	95UCL	4.5E+06	5.1E+04	9E-07	8E-10
348 249TH ST	Naphthalene	mg/kg	0.0798	95UCL	1.4E+02	3.9E+01	6E-04	2E-08
348 249TH ST	Pyrene	mg/kg	0.896	95UCL	6.7E+04	--	1E-05	--
348 249TH ST	Toluene	µg/kg	0.322	95UCL	1.6E+07	--	2E-08	--
348 249TH ST	TPH as Diesel	mg/kg	925.7	95UCL	1.9E+03	--	5E-01	--
348 249TH ST	TPH as Gasoline	mg/kg	0.928	95UCL	8.6E+02	--	1E-03	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
348 249TH ST	TPH as Motor Oil	mg/kg	1945	95UCL	1.6E+05	--	1E-02	--
348 249TH ST	Xylenes, Total	µg/kg	12.6	95UCL	4.7E+05	--	3E-05	--
351 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.158	95UCL	7.5E+04	--	2E-06	--
351 244TH ST	1-Methylnaphthalene	mg/kg	1.685	95UCL	1.9E+05	2.7E+03	9E-06	6E-09
351 244TH ST	2-Methylnaphthalene	mg/kg	2.388	95UCL	1.1E+04	--	2E-04	--
351 244TH ST	Benzene	µg/kg	0.398	95UCL	6.9E+04	2.2E+03	6E-06	2E-09
351 244TH ST	Chromium, Hexavalent	mg/kg	0.185	95UCL	3.2E+03	6.7E+00	6E-05	3E-07
351 244TH ST	Cobalt	mg/kg	10.95	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
351 244TH ST	Ethylbenzene	µg/kg	0.21	Max	4.5E+06	5.1E+04	5E-08	4E-11
351 244TH ST	Naphthalene	mg/kg	0.77	95UCL	1.4E+02	3.9E+01	5E-03	2E-07
351 244TH ST	Pyrene	mg/kg	0.501	95UCL	6.7E+04	--	8E-06	--
351 244TH ST	Toluene	µg/kg	0.295	95UCL	1.6E+07	--	2E-08	--
351 244TH ST	TPH as Diesel	mg/kg	1180	95UCL	1.9E+03	--	6E-01	--
351 244TH ST	TPH as Gasoline	mg/kg	0.21	Max	8.6E+02	--	2E-04	--
351 244TH ST	TPH as Motor Oil	mg/kg	2728	95UCL	1.6E+05	--	2E-02	--
351 244TH ST	Xylenes, Total	µg/kg	0.53	Max	4.7E+05	--	1E-06	--
352 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.46	95UCL	7.5E+04	--	6E-06	--
352 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.56	Max	7.7E+04	--	7E-06	--
352 249TH ST	1-Methylnaphthalene	mg/kg	0.0719	95UCL	1.9E+05	2.7E+03	4E-07	3E-10
352 249TH ST	2-Methylnaphthalene	mg/kg	0.106	95UCL	1.1E+04	--	1E-05	--
352 249TH ST	Benzene	µg/kg	0.35	95UCL	6.9E+04	2.2E+03	5E-06	2E-09
352 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.26	Max	6.3E+04	6.4E+03	4E-06	4E-10
352 249TH ST	Chromium, Hexavalent	mg/kg	0.185	95UCL	3.2E+03	6.7E+00	6E-05	3E-07
352 249TH ST	Ethylbenzene	µg/kg	0.215	95UCL	4.5E+06	5.1E+04	5E-08	4E-11
352 249TH ST	Naphthalene	mg/kg	0.0347	95UCL	1.4E+02	3.9E+01	3E-04	9E-09
352 249TH ST	Pyrene	mg/kg	0.773	95UCL	6.7E+04	--	1E-05	--
352 249TH ST	Toluene	µg/kg	7.832	95UCL	1.6E+07	--	5E-07	--
352 249TH ST	TPH as Diesel	mg/kg	1156	95UCL	1.9E+03	--	6E-01	--
352 249TH ST	TPH as Gasoline	mg/kg	0.73	95UCL	8.6E+02	--	9E-04	--
352 249TH ST	TPH as Motor Oil	mg/kg	2150	95UCL	1.6E+05	--	1E-02	--
352 249TH ST	Xylenes, Total	µg/kg	0.627	95UCL	4.7E+05	--	1E-06	--
353 249TH ST	1,2,4-Trimethylbenzene	µg/kg	2475	95UCL	7.5E+04	--	3E-02	--
353 249TH ST	1,3,5-Trimethylbenzene	µg/kg	2800	Max	7.7E+04	--	4E-02	--
353 249TH ST	1-Methylnaphthalene	mg/kg	4.141	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
353 249TH ST	2-Methylnaphthalene	mg/kg	6.211	95UCL	1.1E+04	--	6E-04	--
353 249TH ST	Benzene	µg/kg	345	95UCL	6.9E+04	2.2E+03	5E-03	2E-06
353 249TH ST	Bromomethane	µg/kg	190	Max	7.8E+03	--	2E-02	--
353 249TH ST	Chromium, Hexavalent	mg/kg	0.268	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
353 249TH ST	Ethylbenzene	µg/kg	3200	Max	4.5E+06	5.1E+04	7E-04	6E-07
353 249TH ST	Naphthalene	mg/kg	2.911	95UCL	1.4E+02	3.9E+01	2E-02	8E-07
353 249TH ST	Pyrene	mg/kg	0.437	95UCL	6.7E+04	--	7E-06	--
353 249TH ST	Toluene	µg/kg	2.525	95UCL	1.6E+07	--	2E-07	--
353 249TH ST	TPH as Diesel	mg/kg	2177	95UCL	1.9E+03	--	1E+00	--
353 249TH ST	TPH as Gasoline	mg/kg	214.5	95UCL	8.6E+02	--	3E-01	--
353 249TH ST	TPH as Motor Oil	mg/kg	2308	95UCL	1.6E+05	--	1E-02	--
353 249TH ST	Xylenes, Total	µg/kg	1608	95UCL	4.7E+05	--	3E-03	--
354 248TH ST	1,2,4-Trimethylbenzene	µg/kg	679.3	95UCL	7.5E+04	--	9E-03	--
354 248TH ST	1,3,5-Trimethylbenzene	µg/kg	83.36	95UCL	7.7E+04	--	1E-03	--
354 248TH ST	1-Methylnaphthalene	mg/kg	10.59	95UCL	1.9E+05	2.7E+03	6E-05	4E-08
354 248TH ST	2-Methylnaphthalene	mg/kg	21.37	95UCL	1.1E+04	--	2E-03	--
354 248TH ST	Benzene	µg/kg	277.1	95UCL	6.9E+04	2.2E+03	4E-03	1E-06
354 248TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.52	Max	6.3E+04	6.4E+03	8E-06	8E-10
354 248TH ST	Chromium, Hexavalent	mg/kg	0.36	Max	3.2E+03	6.7E+00	1E-04	5E-07
354 248TH ST	Ethylbenzene	µg/kg	416.8	95UCL	4.5E+06	5.1E+04	9E-05	8E-08
354 248TH ST	Naphthalene	mg/kg	7.662	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
354 248TH ST	Pyrene	mg/kg	2.545	95UCL	6.7E+04	--	4E-05	--
354 248TH ST	Toluene	µg/kg	14.07	95UCL	1.6E+07	--	9E-07	--
354 248TH ST	TPH as Diesel	mg/kg	7944	95UCL	1.9E+03	--	4E+00	--
354 248TH ST	TPH as Gasoline	mg/kg	267.4	95UCL	8.6E+02	--	3E-01	--
354 248TH ST	TPH as Motor Oil	mg/kg	7229	95UCL	1.6E+05	--	5E-02	--
354 248TH ST	Xylenes, Total	µg/kg	332.3	95UCL	4.7E+05	--	7E-04	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
357 244TH ST	1-Methylnaphthalene	mg/kg	0.0068	Max	1.9E+05	2.7E+03	4E-08	3E-11
357 244TH ST	2-Methylnaphthalene	mg/kg	0.0029	95UCL	1.1E+04	--	3E-07	--
357 244TH ST	Benzene	µg/kg	0.24	Max	6.9E+04	2.2E+03	4E-06	1E-09
357 244TH ST	Chromium, Hexavalent	mg/kg	0.44	Max	3.2E+03	6.7E+00	1E-04	7E-07
357 244TH ST	Cobalt	mg/kg	11.51	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
357 244TH ST	Naphthalene	mg/kg	0.00227	95UCL	1.4E+02	3.9E+01	2E-05	6E-10
357 244TH ST	Pyrene	mg/kg	0.013	95UCL	6.7E+04	--	2E-07	--
357 244TH ST	Toluene	µg/kg	0.28	Max	1.6E+07	--	2E-08	--
357 244TH ST	TPH as Diesel	mg/kg	24.46	95UCL	1.9E+03	--	1E-02	--
357 244TH ST	TPH as Gasoline	mg/kg	0.0812	95UCL	8.6E+02	--	9E-05	--
357 244TH ST	TPH as Motor Oil	mg/kg	108.7	95UCL	1.6E+05	--	7E-04	--
357 249TH ST	1,2,4-Trimethylbenzene	µg/kg	734.4	95UCL	7.5E+04	--	1E-02	--
357 249TH ST	1,3,5-Trimethylbenzene	µg/kg	263.8	95UCL	7.7E+04	--	3E-03	--
357 249TH ST	1-Methylnaphthalene	mg/kg	3.622	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
357 249TH ST	2-Methylnaphthalene	mg/kg	9.831	95UCL	1.1E+04	--	9E-04	--
357 249TH ST	Benzene	µg/kg	179.7	95UCL	6.9E+04	2.2E+03	3E-03	8E-07
357 249TH ST	Bromomethane	µg/kg	550	Max	7.8E+03	--	7E-02	--
357 249TH ST	Ethylbenzene	µg/kg	316.5	95UCL	4.5E+06	5.1E+04	7E-05	6E-08
357 249TH ST	Naphthalene	mg/kg	5.015	95UCL	1.4E+02	3.9E+01	4E-02	1E-06
357 249TH ST	Pyrene	mg/kg	0.973	95UCL	6.7E+04	--	2E-05	--
357 249TH ST	Toluene	µg/kg	25.49	95UCL	1.6E+07	--	2E-06	--
357 249TH ST	TPH as Diesel	mg/kg	3611	95UCL	1.9E+03	--	2E+00	--
357 249TH ST	TPH as Gasoline	mg/kg	271.3	95UCL	8.6E+02	--	3E-01	--
357 249TH ST	TPH as Motor Oil	mg/kg	4672	95UCL	1.6E+05	--	3E-02	--
357 249TH ST	Xylenes, Total	µg/kg	423.4	95UCL	4.7E+05	--	9E-04	--
358 249TH ST	1,2,4-Trimethylbenzene	µg/kg	148.5	95UCL	7.5E+04	--	2E-03	--
358 249TH ST	1,3,5-Trimethylbenzene	µg/kg	53.48	95UCL	7.7E+04	--	7E-04	--
358 249TH ST	1-Methylnaphthalene	mg/kg	2.571	95UCL	1.9E+05	2.7E+03	1E-05	1E-08
358 249TH ST	2-Methylnaphthalene	mg/kg	3.655	95UCL	1.1E+04	--	3E-04	--
358 249TH ST	Benzene	µg/kg	0.14	95UCL	6.9E+04	2.2E+03	2E-06	6E-10
358 249TH ST	Chromium, Hexavalent	mg/kg	0.44	Max	3.2E+03	6.7E+00	1E-04	7E-07
358 249TH ST	Ethylbenzene	µg/kg	12.54	95UCL	4.5E+06	5.1E+04	3E-06	3E-09
358 249TH ST	Naphthalene	mg/kg	1.027	95UCL	1.4E+02	3.9E+01	7E-03	3E-07
358 249TH ST	Pyrene	mg/kg	0.421	95UCL	6.7E+04	--	6E-06	--
358 249TH ST	Tetrachloroethene	µg/kg	2.4	Max	8.6E+04	1.0E+04	3E-05	2E-09
358 249TH ST	Toluene	µg/kg	0.259	95UCL	1.6E+07	--	2E-08	--
358 249TH ST	TPH as Diesel	mg/kg	1973	95UCL	1.9E+03	--	1E+00	--
358 249TH ST	TPH as Gasoline	mg/kg	19.25	95UCL	8.6E+02	--	2E-02	--
358 249TH ST	TPH as Motor Oil	mg/kg	2840	95UCL	1.6E+05	--	2E-02	--
358 249TH ST	Xylenes, Total	µg/kg	80.66	95UCL	4.7E+05	--	2E-04	--
360 248TH ST	1,2,4-Trimethylbenzene	µg/kg	79.55	95UCL	7.5E+04	--	1E-03	--
360 248TH ST	1,3,5-Trimethylbenzene	µg/kg	25.97	95UCL	7.7E+04	--	3E-04	--
360 248TH ST	1-Methylnaphthalene	mg/kg	3.885	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
360 248TH ST	2-Methylnaphthalene	mg/kg	5.382	95UCL	1.1E+04	--	5E-04	--
360 248TH ST	Benzene	µg/kg	70.89	95UCL	6.9E+04	2.2E+03	1E-03	3E-07
360 248TH ST	Ethylbenzene	µg/kg	178.8	95UCL	4.5E+06	5.1E+04	4E-05	4E-08
360 248TH ST	Naphthalene	mg/kg	1.773	95UCL	1.4E+02	3.9E+01	1E-02	5E-07
360 248TH ST	Pyrene	mg/kg	0.701	95UCL	6.7E+04	--	1E-05	--
360 248TH ST	Toluene	µg/kg	15	Max	1.6E+07	--	9E-07	--
360 248TH ST	TPH as Diesel	mg/kg	2488	95UCL	1.9E+03	--	1E+00	--
360 248TH ST	TPH as Gasoline	mg/kg	142	95UCL	8.6E+02	--	2E-01	--
360 248TH ST	TPH as Motor Oil	mg/kg	2685	95UCL	1.6E+05	--	2E-02	--
360 248TH ST	Xylenes, Total	µg/kg	86.46	95UCL	4.7E+05	--	2E-04	--
361 244TH ST	1,2,4-Trimethylbenzene	µg/kg	0.69	Max	7.5E+04	--	9E-06	--
361 244TH ST	2-Methylnaphthalene	mg/kg	0.00317	95UCL	1.1E+04	--	3E-07	--
361 244TH ST	Benzene	µg/kg	0.17	Max	6.9E+04	2.2E+03	3E-06	8E-10
361 244TH ST	Chromium, Hexavalent	mg/kg	0.76	Max	3.2E+03	6.7E+00	2E-04	1E-06
361 244TH ST	Cobalt	mg/kg	10.91	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
361 244TH ST	Naphthalene	mg/kg	0.00817	95UCL	1.4E+02	3.9E+01	6E-05	2E-09
361 244TH ST	Pyrene	mg/kg	0.0122	95UCL	6.7E+04	--	2E-07	--
361 244TH ST	Toluene	µg/kg	0.17	Max	1.6E+07	--	1E-08	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
361 244TH ST	TPH as Diesel	mg/kg	38.73	95UCL	1.9E+03	--	2E-02	--
361 244TH ST	TPH as Gasoline	mg/kg	0.12	Max	8.6E+02	--	1E-04	--
361 244TH ST	TPH as Motor Oil	mg/kg	137.9	95UCL	1.6E+05	--	9E-04	--
361 244TH ST	Xylenes, Total	µg/kg	0.52	Max	4.7E+05	--	1E-06	--
362 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.16	Max	7.5E+04	--	2E-06	--
362 249TH ST	1-Methylnaphthalene	mg/kg	0.0045	95UCL	1.9E+05	2.7E+03	2E-08	2E-11
362 249TH ST	2-Methylnaphthalene	mg/kg	0.00579	95UCL	1.1E+04	--	5E-07	--
362 249TH ST	Benzene	µg/kg	0.3	95UCL	6.9E+04	2.2E+03	4E-06	1E-09
362 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.2	Max	6.3E+04	6.4E+03	2E-05	2E-09
362 249TH ST	Chromium, Hexavalent	mg/kg	0.44	Max	3.2E+03	6.7E+00	1E-04	7E-07
362 249TH ST	Ethylbenzene	µg/kg	0.19	Max	4.5E+06	5.1E+04	4E-08	4E-11
362 249TH ST	Naphthalene	mg/kg	0.0034	95UCL	1.4E+02	3.9E+01	2E-05	9E-10
362 249TH ST	Pyrene	mg/kg	0.0566	95UCL	6.7E+04	--	9E-07	--
362 249TH ST	Toluene	µg/kg	0.261	95UCL	1.6E+07	--	2E-08	--
362 249TH ST	TPH as Diesel	mg/kg	472.1	95UCL	1.9E+03	--	3E-01	--
362 249TH ST	TPH as Gasoline	mg/kg	0.151	95UCL	8.6E+02	--	2E-04	--
362 249TH ST	TPH as Motor Oil	mg/kg	953.6	95UCL	1.6E+05	--	6E-03	--
362 249TH ST	Xylenes, Total	µg/kg	0.27	Max	4.7E+05	--	6E-07	--
363 249TH ST	1,2,4-Trimethylbenzene	µg/kg	72.71	95UCL	7.5E+04	--	1E-03	--
363 249TH ST	1,3,5-Trimethylbenzene	µg/kg	10	Max	7.7E+04	--	1E-04	--
363 249TH ST	1-Methylnaphthalene	mg/kg	9.933	95UCL	1.9E+05	2.7E+03	5E-05	4E-08
363 249TH ST	2-Methylnaphthalene	mg/kg	14.89	95UCL	1.1E+04	--	1E-03	--
363 249TH ST	Benzene	µg/kg	31.43	95UCL	6.9E+04	2.2E+03	5E-04	1E-07
363 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.46	95UCL	6.3E+04	6.4E+03	7E-06	7E-10
363 249TH ST	Ethylbenzene	µg/kg	292.3	95UCL	4.5E+06	5.1E+04	6E-05	6E-08
363 249TH ST	Naphthalene	mg/kg	6.424	95UCL	1.4E+02	3.9E+01	5E-02	2E-06
363 249TH ST	Pyrene	mg/kg	5.776	95UCL	6.7E+04	--	9E-05	--
363 249TH ST	Toluene	µg/kg	16.56	95UCL	1.6E+07	--	1E-06	--
363 249TH ST	TPH as Diesel	mg/kg	7483	95UCL	1.9E+03	--	4E+00	--
363 249TH ST	TPH as Gasoline	mg/kg	171.1	95UCL	8.6E+02	--	2E-01	--
363 249TH ST	TPH as Motor Oil	mg/kg	9862	95UCL	1.6E+05	--	6E-02	--
363 249TH ST	Xylenes, Total	µg/kg	152	95UCL	4.7E+05	--	3E-04	--
364 248TH ST	1,2,4-Trimethylbenzene	µg/kg	648.7	95UCL	7.5E+04	--	9E-03	--
364 248TH ST	1,3,5-Trimethylbenzene	µg/kg	194.8	95UCL	7.7E+04	--	3E-03	--
364 248TH ST	1-Methylnaphthalene	mg/kg	3.976	95UCL	1.9E+05	2.7E+03	2E-05	2E-08
364 248TH ST	2-Methylnaphthalene	mg/kg	5.752	95UCL	1.1E+04	--	5E-04	--
364 248TH ST	Benzene	µg/kg	49.73	95UCL	6.9E+04	2.2E+03	7E-04	2E-07
364 248TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.8	Max	6.3E+04	6.4E+03	1E-05	1E-09
364 248TH ST	Bromomethane	µg/kg	190	Max	7.8E+03	--	2E-02	--
364 248TH ST	Ethylbenzene	µg/kg	290.7	95UCL	4.5E+06	5.1E+04	6E-05	6E-08
364 248TH ST	Naphthalene	mg/kg	2.31	95UCL	1.4E+02	3.9E+01	2E-02	6E-07
364 248TH ST	Pyrene	mg/kg	0.764	95UCL	6.7E+04	--	1E-05	--
364 248TH ST	Toluene	µg/kg	2.778	95UCL	1.6E+07	--	2E-07	--
364 248TH ST	TPH as Diesel	mg/kg	3313	95UCL	1.9E+03	--	2E+00	--
364 248TH ST	TPH as Gasoline	mg/kg	134.3	95UCL	8.6E+02	--	2E-01	--
364 248TH ST	TPH as Motor Oil	mg/kg	4572	95UCL	1.6E+05	--	3E-02	--
364 248TH ST	Xylenes, Total	µg/kg	240	95UCL	4.7E+05	--	5E-04	--
367 244TH ST	2-Methylnaphthalene	mg/kg	0.0472	95UCL	1.1E+04	--	4E-06	--
367 244TH ST	Benzene	µg/kg	0.16	Max	6.9E+04	2.2E+03	2E-06	7E-10
367 244TH ST	Pyrene	mg/kg	0.447	95UCL	6.7E+04	--	7E-06	--
367 244TH ST	Toluene	µg/kg	0.18	Max	1.6E+07	--	1E-08	--
367 244TH ST	TPH as Diesel	mg/kg	3867	95UCL	1.9E+03	--	2E+00	--
367 244TH ST	TPH as Motor Oil	mg/kg	10116	95UCL	1.6E+05	--	6E-02	--
367 249TH ST	1,2,3-Trichloropropane	µg/kg	12	Max	2.0E+03	7.2E+03	6E-03	2E-08
367 249TH ST	1,2,4-Trimethylbenzene	µg/kg	106.8	95UCL	7.5E+04	--	1E-03	--
367 249TH ST	1,3,5-Trimethylbenzene	µg/kg	7.465	95UCL	7.7E+04	--	1E-04	--
367 249TH ST	1-Methylnaphthalene	mg/kg	0.566	95UCL	1.9E+05	2.7E+03	3E-06	2E-09
367 249TH ST	2-Methylnaphthalene	mg/kg	1.144	95UCL	1.1E+04	--	1E-04	--
367 249TH ST	Benzene	µg/kg	1.512	95UCL	6.9E+04	2.2E+03	2E-05	7E-09
367 249TH ST	Bromomethane	µg/kg	3.1	Max	7.8E+03	--	4E-04	--
367 249TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	3.2E+03	6.7E+00	8E-05	4E-07

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
367 249TH ST	Ethylbenzene	µg/kg	29.12	95UCL	4.5E+06	5.1E+04	6E-06	6E-09
367 249TH ST	Naphthalene	mg/kg	0.383	95UCL	1.4E+02	3.9E+01	3E-03	1E-07
367 249TH ST	Pyrene	mg/kg	0.41	95UCL	6.7E+04	--	6E-06	--
367 249TH ST	Toluene	µg/kg	0.221	95UCL	1.6E+07	--	1E-08	--
367 249TH ST	TPH as Diesel	mg/kg	1813	95UCL	1.9E+03	--	1E+00	--
367 249TH ST	TPH as Gasoline	mg/kg	45.45	95UCL	8.6E+02	--	5E-02	--
367 249TH ST	TPH as Motor Oil	mg/kg	2736	95UCL	1.6E+05	--	2E-02	--
367 249TH ST	Xylenes, Total	µg/kg	12.82	95UCL	4.7E+05	--	3E-05	--
368 249TH ST	1,2,4-Trimethylbenzene	µg/kg	3992	95UCL	7.5E+04	--	5E-02	--
368 249TH ST	1,3,5-Trimethylbenzene	µg/kg	1626	95UCL	7.7E+04	--	2E-02	--
368 249TH ST	1-Methylnaphthalene	mg/kg	3.117	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
368 249TH ST	2-Methylnaphthalene	mg/kg	4.543	95UCL	1.1E+04	--	4E-04	--
368 249TH ST	Benzene	µg/kg	155.1	95UCL	6.9E+04	2.2E+03	2E-03	7E-07
368 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.7	Max	6.3E+04	6.4E+03	3E-05	3E-09
368 249TH ST	Chromium, Hexavalent	mg/kg	0.289	95UCL	3.2E+03	6.7E+00	9E-05	4E-07
368 249TH ST	Ethylbenzene	µg/kg	1210	95UCL	4.5E+06	5.1E+04	3E-04	2E-07
368 249TH ST	Methylene Chloride	µg/kg	51	Max	1.2E+06	5.9E+04	4E-05	9E-09
368 249TH ST	Naphthalene	mg/kg	1.852	95UCL	1.4E+02	3.9E+01	1E-02	5E-07
368 249TH ST	Pyrene	mg/kg	5.678	95UCL	6.7E+04	--	9E-05	--
368 249TH ST	Toluene	µg/kg	77.6	95UCL	1.6E+07	--	5E-06	--
368 249TH ST	TPH as Diesel	mg/kg	3543	95UCL	1.9E+03	--	2E+00	--
368 249TH ST	TPH as Gasoline	mg/kg	393	95UCL	8.6E+02	--	5E-01	--
368 249TH ST	TPH as Motor Oil	mg/kg	4284	95UCL	1.6E+05	--	3E-02	--
368 249TH ST	Xylenes, Total	µg/kg	7394	95UCL	4.7E+05	--	2E-02	--
373 249TH ST	1,2,3-Trichloropropane	µg/kg	4.2	Max	2.0E+03	7.2E+03	2E-03	6E-09
373 249TH ST	1,2,4-Trimethylbenzene	µg/kg	396.8	95UCL	7.5E+04	--	5E-03	--
373 249TH ST	1,3,5-Trimethylbenzene	µg/kg	38.67	95UCL	7.7E+04	--	5E-04	--
373 249TH ST	1-Methylnaphthalene	mg/kg	2.226	95UCL	1.9E+05	2.7E+03	1E-05	8E-09
373 249TH ST	2-Methylnaphthalene	mg/kg	3.169	95UCL	1.1E+04	--	3E-04	--
373 249TH ST	Benzene	µg/kg	14.75	95UCL	6.9E+04	2.2E+03	2E-04	7E-08
373 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.2	Max	6.3E+04	6.4E+03	3E-06	3E-10
373 249TH ST	Bromomethane	µg/kg	2.9	Max	7.8E+03	--	4E-04	--
373 249TH ST	Ethylbenzene	µg/kg	121.7	95UCL	4.5E+06	5.1E+04	3E-05	2E-08
373 249TH ST	Methylene Chloride	µg/kg	3.2	95UCL	1.2E+06	5.9E+04	3E-06	5E-10
373 249TH ST	Naphthalene	mg/kg	1.123	95UCL	1.4E+02	3.9E+01	8E-03	3E-07
373 249TH ST	Pyrene	mg/kg	1.059	95UCL	6.7E+04	--	2E-05	--
373 249TH ST	Toluene	µg/kg	1.603	95UCL	1.6E+07	--	1E-07	--
373 249TH ST	TPH as Diesel	mg/kg	2475	95UCL	1.9E+03	--	1E+00	--
373 249TH ST	TPH as Gasoline	mg/kg	24.96	95UCL	8.6E+02	--	3E-02	--
373 249TH ST	TPH as Motor Oil	mg/kg	2439	95UCL	1.6E+05	--	2E-02	--
373 249TH ST	Xylenes, Total	µg/kg	136.8	95UCL	4.7E+05	--	3E-04	--
374 248TH ST	1,2,4-Trimethylbenzene	µg/kg	530.6	95UCL	7.5E+04	--	7E-03	--
374 248TH ST	1,3,5-Trimethylbenzene	µg/kg	71.51	95UCL	7.7E+04	--	9E-04	--
374 248TH ST	1-Methylnaphthalene	mg/kg	5.089	95UCL	1.9E+05	2.7E+03	3E-05	2E-08
374 248TH ST	2-Methylnaphthalene	mg/kg	6.083	95UCL	1.1E+04	--	6E-04	--
374 248TH ST	Benzene	µg/kg	52.13	95UCL	6.9E+04	2.2E+03	8E-04	2E-07
374 248TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.238	95UCL	6.3E+04	6.4E+03	4E-06	4E-10
374 248TH ST	Ethylbenzene	µg/kg	102	95UCL	4.5E+06	5.1E+04	2E-05	2E-08
374 248TH ST	Methylene Chloride	µg/kg	23	Max	1.2E+06	5.9E+04	2E-05	4E-09
374 248TH ST	Naphthalene	mg/kg	1.145	95UCL	1.4E+02	3.9E+01	8E-03	3E-07
374 248TH ST	Pyrene	mg/kg	13.92	95UCL	6.7E+04	--	2E-04	--
374 248TH ST	Toluene	µg/kg	6.156	95UCL	1.6E+07	--	4E-07	--
374 248TH ST	TPH as Diesel	mg/kg	5172	95UCL	1.9E+03	--	3E+00	--
374 248TH ST	TPH as Gasoline	mg/kg	50.5	95UCL	8.6E+02	--	6E-02	--
374 248TH ST	TPH as Motor Oil	mg/kg	8017	95UCL	1.6E+05	--	5E-02	--
374 248TH ST	Xylenes, Total	µg/kg	266.4	95UCL	4.7E+05	--	6E-04	--
374 249TH ST	1,2,4-Trimethylbenzene	µg/kg	2655	95UCL	7.5E+04	--	4E-02	--
374 249TH ST	1,3,5-Trimethylbenzene	µg/kg	996.8	95UCL	7.7E+04	--	1E-02	--
374 249TH ST	1-Methylnaphthalene	mg/kg	2.902	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
374 249TH ST	2-Methylnaphthalene	mg/kg	7.222	95UCL	1.1E+04	--	7E-04	--
374 249TH ST	Benzene	µg/kg	837.4	95UCL	6.9E+04	2.2E+03	1E-02	4E-06

Appendix E
Detailed Risk Calculations

Table E-4
CO-C-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
374 249TH ST	Chromium, Hexavalent	mg/kg	0.34	Max	3.2E+03	6.7E+00	1E-04	5E-07
374 249TH ST	Ethylbenzene	µg/kg	1504	95UCL	4.5E+06	5.1E+04	3E-04	3E-07
374 249TH ST	Naphthalene	mg/kg	2.897	95UCL	1.4E+02	3.9E+01	2E-02	7E-07
374 249TH ST	Pyrene	mg/kg	1.198	95UCL	6.7E+04	--	2E-05	--
374 249TH ST	Toluene	µg/kg	103.4	95UCL	1.6E+07	--	6E-06	--
374 249TH ST	TPH as Diesel	mg/kg	4645	95UCL	1.9E+03	--	2E+00	--
374 249TH ST	TPH as Gasoline	mg/kg	278.6	95UCL	8.6E+02	--	3E-01	--
374 249TH ST	TPH as Motor Oil	mg/kg	4704	95UCL	1.6E+05	--	3E-02	--
374 249TH ST	Xylenes, Total	µg/kg	2603	95UCL	4.7E+05	--	6E-03	--
377 244TH ST	1-Methylnaphthalene	mg/kg	0.0036	Max	1.9E+05	2.7E+03	2E-08	1E-11
377 244TH ST	2-Methylnaphthalene	mg/kg	0.0117	95UCL	1.1E+04	--	1E-06	--
377 244TH ST	Benzene	µg/kg	0.19	Max	6.9E+04	2.2E+03	3E-06	9E-10
377 244TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.51	Max	6.3E+04	6.4E+03	8E-06	8E-10
377 244TH ST	Chromium, Hexavalent	mg/kg	0.4	Max	3.2E+03	6.7E+00	1E-04	6E-07
377 244TH ST	Cobalt	mg/kg	11.86	95UCL	2.0E+02	1.1E+02	6E-02	1E-06
377 244TH ST	Naphthalene	mg/kg	0.00177	95UCL	1.4E+02	3.9E+01	1E-05	5E-10
377 244TH ST	Pyrene	mg/kg	0.0705	95UCL	6.7E+04	--	1E-06	--
377 244TH ST	Toluene	µg/kg	0.21	Max	1.6E+07	--	1E-08	--
377 244TH ST	TPH as Diesel	mg/kg	105.7	95UCL	1.9E+03	--	6E-02	--
377 244TH ST	TPH as Gasoline	mg/kg	0.088	Max	8.6E+02	--	1E-04	--
377 244TH ST	TPH as Motor Oil	mg/kg	295.4	95UCL	1.6E+05	--	2E-03	--
377 249TH ST	1,2,4-Trimethylbenzene	µg/kg	908.5	95UCL	7.5E+04	--	1E-02	--
377 249TH ST	1,3,5-Trimethylbenzene	µg/kg	287.9	95UCL	7.7E+04	--	4E-03	--
377 249TH ST	1-Methylnaphthalene	mg/kg	2.857	95UCL	1.9E+05	2.7E+03	2E-05	1E-08
377 249TH ST	2-Methylnaphthalene	mg/kg	6.513	95UCL	1.1E+04	--	6E-04	--
377 249TH ST	Benzene	µg/kg	62.35	95UCL	6.9E+04	2.2E+03	9E-04	3E-07
377 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.4	Max	6.3E+04	6.4E+03	6E-06	6E-10
377 249TH ST	Ethylbenzene	µg/kg	156.6	95UCL	4.5E+06	5.1E+04	4E-05	3E-08
377 249TH ST	Naphthalene	mg/kg	2.108	95UCL	1.4E+02	3.9E+01	2E-02	5E-07
377 249TH ST	Pyrene	mg/kg	0.901	95UCL	6.7E+04	--	1E-05	--
377 249TH ST	Toluene	µg/kg	0.183	95UCL	1.6E+07	--	1E-08	--
377 249TH ST	TPH as Diesel	mg/kg	4736	95UCL	1.9E+03	--	3E+00	--
377 249TH ST	TPH as Gasoline	mg/kg	139.5	95UCL	8.6E+02	--	2E-01	--
377 249TH ST	TPH as Motor Oil	mg/kg	4976	95UCL	1.6E+05	--	3E-02	--
377 249TH ST	Xylenes, Total	µg/kg	386.2	95UCL	4.7E+05	--	8E-04	--
378 249TH ST	1,2,4-Trimethylbenzene	µg/kg	51.16	95UCL	7.5E+04	--	7E-04	--
378 249TH ST	1,3,5-Trimethylbenzene	µg/kg	5.627	95UCL	7.7E+04	--	7E-05	--
378 249TH ST	1-Methylnaphthalene	mg/kg	2.182	95UCL	1.9E+05	2.7E+03	1E-05	8E-09
378 249TH ST	2-Methylnaphthalene	mg/kg	3.18	95UCL	1.1E+04	--	3E-04	--
378 249TH ST	Benzene	µg/kg	33.67	95UCL	6.9E+04	2.2E+03	5E-04	2E-07
378 249TH ST	Chromium, Hexavalent	mg/kg	0.25	Max	3.2E+03	6.7E+00	8E-05	4E-07
378 249TH ST	Ethylbenzene	µg/kg	495.7	95UCL	4.5E+06	5.1E+04	1E-04	1E-07
378 249TH ST	Naphthalene	mg/kg	1.196	95UCL	1.4E+02	3.9E+01	9E-03	3E-07
378 249TH ST	Pyrene	mg/kg	0.186	95UCL	6.7E+04	--	3E-06	--
378 249TH ST	Toluene	µg/kg	2.545	95UCL	1.6E+07	--	2E-07	--
378 249TH ST	TPH as Diesel	mg/kg	2492	95UCL	1.9E+03	--	1E+00	--
378 249TH ST	TPH as Gasoline	mg/kg	151	95UCL	8.6E+02	--	2E-01	--
378 249TH ST	TPH as Motor Oil	mg/kg	2461	95UCL	1.6E+05	--	2E-02	--
378 249TH ST	Xylenes, Total	µg/kg	27.97	95UCL	4.7E+05	--	6E-05	--
383 249TH ST	1,2,4-Trimethylbenzene	µg/kg	164.6	95UCL	7.5E+04	--	2E-03	--
383 249TH ST	1,3,5-Trimethylbenzene	µg/kg	6.205	95UCL	7.7E+04	--	8E-05	--
383 249TH ST	1-Methylnaphthalene	mg/kg	1.962	95UCL	1.9E+05	2.7E+03	1E-05	7E-09
383 249TH ST	2,4-Dinitrotoluene	mg/kg	0.12	Max	6.3E+03	2.8E+02	2E-05	4E-09
383 249TH ST	2-Methylnaphthalene	mg/kg	2.992	95UCL	1.1E+04	--	3E-04	--
383 249TH ST	Benzene	µg/kg	12.35	95UCL	6.9E+04	2.2E+03	2E-04	6E-08
383 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	0.17	Max	6.3E+04	6.4E+03	3E-06	3E-10
383 249TH ST	Ethylbenzene	µg/kg	41.66	95UCL	4.5E+06	5.1E+04	9E-06	8E-09
383 249TH ST	Naphthalene	mg/kg	0.863	95UCL	1.4E+02	3.9E+01	6E-03	2E-07
383 249TH ST	Pyrene	mg/kg	1.449	95UCL	6.7E+04	--	2E-05	--
383 249TH ST	Toluene	µg/kg	0.485	95UCL	1.6E+07	--	3E-08	--
383 249TH ST	TPH as Diesel	mg/kg	2431	95UCL	1.9E+03	--	1E+00	--

Appendix E
Detailed Risk Calculations

Table E-4
COC-Specific Risk and Hazard Results, Residential Properties
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Location	Constituent of Concern	Units	EPC	EPC Basis	Construction and Utility Maintenance Worker			
					SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
383 249TH ST	TPH as Gasoline	mg/kg	102.3	95UCL	8.6E+02	--	1E-01	--
383 249TH ST	TPH as Motor Oil	mg/kg	2864	95UCL	1.6E+05	--	2E-02	--
383 249TH ST	Xylenes, Total	µg/kg	21.61	95UCL	4.7E+05	--	5E-05	--
402 249TH ST	1,2,4-Trimethylbenzene	µg/kg	23.42	95UCL	7.5E+04	--	3E-04	--
402 249TH ST	1,3,5-Trimethylbenzene	µg/kg	8.1	Max	7.7E+04	--	1E-04	--
402 249TH ST	1-Methylnaphthalene	mg/kg	2.412	95UCL	1.9E+05	2.7E+03	1E-05	9E-09
402 249TH ST	2-Methylnaphthalene	mg/kg	3.208	95UCL	1.1E+04	--	3E-04	--
402 249TH ST	Benzene	µg/kg	0.345	95UCL	6.9E+04	2.2E+03	5E-06	2E-09
402 249TH ST	Ethylbenzene	µg/kg	220	Max	4.5E+06	5.1E+04	5E-05	4E-08
402 249TH ST	Naphthalene	mg/kg	0.953	95UCL	1.4E+02	3.9E+01	7E-03	3E-07
402 249TH ST	Pyrene	mg/kg	0.343	95UCL	6.7E+04	--	5E-06	--
402 249TH ST	Toluene	µg/kg	0.244	95UCL	1.6E+07	--	2E-08	--
402 249TH ST	TPH as Diesel	mg/kg	1995	95UCL	1.9E+03	--	1E+00	--
402 249TH ST	TPH as Gasoline	mg/kg	49.75	95UCL	8.6E+02	--	6E-02	--
402 249TH ST	TPH as Motor Oil	mg/kg	2500	95UCL	1.6E+05	--	2E-02	--
402 249TH ST	Xylenes, Total	µg/kg	19.75	95UCL	4.7E+05	--	4E-05	--
408 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.212	95UCL	7.5E+04	--	3E-06	--
408 249TH ST	1,3,5-Trimethylbenzene	µg/kg	0.15	Max	7.7E+04	--	2E-06	--
408 249TH ST	1-Methylnaphthalene	mg/kg	0.00905	95UCL	1.9E+05	2.7E+03	5E-08	3E-11
408 249TH ST	2-Methylnaphthalene	mg/kg	0.0337	95UCL	1.1E+04	--	3E-06	--
408 249TH ST	Benzene	µg/kg	1.613	95UCL	6.9E+04	2.2E+03	2E-05	7E-09
408 249TH ST	Bis(2-Ethylhexyl) Phthalate	mg/kg	1.4	Max	6.3E+04	6.4E+03	2E-05	2E-09
408 249TH ST	Bromodichloromethane	µg/kg	0.3	Max	4.9E+05	5.3E+03	6E-07	6E-10
408 249TH ST	Chromium, Hexavalent	mg/kg	0.37	Max	3.2E+03	6.7E+00	1E-04	6E-07
408 249TH ST	Naphthalene	mg/kg	0.00966	95UCL	1.4E+02	3.9E+01	7E-05	3E-09
408 249TH ST	Pyrene	mg/kg	0.216	95UCL	6.7E+04	--	3E-06	--
408 249TH ST	Toluene	µg/kg	0.62	95UCL	1.6E+07	--	4E-08	--
408 249TH ST	TPH as Diesel	mg/kg	89.96	95UCL	1.9E+03	--	5E-02	--
408 249TH ST	TPH as Gasoline	mg/kg	0.16	Max	8.6E+02	--	2E-04	--
408 249TH ST	TPH as Motor Oil	mg/kg	217.1	95UCL	1.6E+05	--	1E-03	--
408 249TH ST	Xylenes, Total	µg/kg	1.1	Max	4.7E+05	--	2E-06	--
412 249TH ST	1,2,4-Trimethylbenzene	µg/kg	0.46	95UCL	7.5E+04	--	6E-06	--
412 249TH ST	1,3,5-Trimethylbenzene	µg/kg	1.5	Max	7.7E+04	--	2E-05	--
412 249TH ST	1,4-Dichlorobenzene	µg/kg	0.19	Max	8.7E+06	2.8E+04	2E-08	7E-11
412 249TH ST	1-Methylnaphthalene	mg/kg	0.24	95UCL	1.9E+05	2.7E+03	1E-06	9E-10
412 249TH ST	2,4-Dinitrotoluene	mg/kg	0.18	Max	6.3E+03	2.8E+02	3E-05	6E-09
412 249TH ST	2-Methylnaphthalene	mg/kg	0.118	95UCL	1.1E+04	--	1E-05	--
412 249TH ST	Benzene	µg/kg	0.214	95UCL	6.9E+04	2.2E+03	3E-06	1E-09
412 249TH ST	Bromomethane	µg/kg	1.9	Max	7.8E+03	--	2E-04	--
412 249TH ST	Chromium, Hexavalent	mg/kg	0.242	95UCL	3.2E+03	6.7E+00	8E-05	4E-07
412 249TH ST	Ethylbenzene	µg/kg	0.79	Max	4.5E+06	5.1E+04	2E-07	2E-10
412 249TH ST	Naphthalene	mg/kg	0.0495	95UCL	1.4E+02	3.9E+01	4E-04	1E-08
412 249TH ST	Pyrene	mg/kg	7.081	95UCL	6.7E+04	--	1E-04	--
412 249TH ST	Toluene	µg/kg	0.156	95UCL	1.6E+07	--	1E-08	--
412 249TH ST	TPH as Diesel	mg/kg	4199	95UCL	1.9E+03	--	2E+00	--
412 249TH ST	TPH as Gasoline	mg/kg	0.545	95UCL	8.6E+02	--	6E-04	--
412 249TH ST	TPH as Motor Oil	mg/kg	6600	95UCL	1.6E+05	--	4E-02	--
412 249TH ST	Xylenes, Total	µg/kg	0.652	95UCL	4.7E+05	--	1E-06	--

Notes:

" -- " not applicable; COC = Constituent of Concern; 95UCL = 95 percent upper confidence limit

Soil ≤10 ft bgs = less than or equal to 10 feet below ground surface

SSCG = Site-specific cleanup goals; SSCGnc = based on noncancer effects; SSCGc = based on cancer effects

EPC = exposure point concentration based on the 95UCLs; if not available, maximum detect (Max) was used as the EPC.

Bold + Shaded if COC-specific noncancer hazard >1 or COC-specific cancer risk >1E-05

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24401 MARBELLA AVE	1,2-Dichloroethane	4.5E+00	3.7E+03	5.9E+01	1E-03	8E-08
24401 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.4E+01	2.6E+06	--	5E-06	--
24401 MARBELLA AVE	Benzene	5.9E+00	1.6E+04	4.2E+01	4E-04	1E-07
24401 MARBELLA AVE	Chloroform	4.2E+00	5.1E+04	2.3E+02	8E-05	2E-08
24401 MARBELLA AVE	Ethanol	1.5E+01	2.1E+06	--	7E-06	--
24401 MARBELLA AVE	Methylene Chloride	4.0E+00	3.1E+05	1.2E+03	1E-05	3E-09
24401 MARBELLA AVE	Naphthalene	1.3E+00	1.6E+03	3.6E+01	8E-04	4E-08
24401 MARBELLA AVE	Tetrachloroethene	1.7E+02	2.1E+04	2.1E+02	8E-03	8E-07
24401 MARBELLA AVE	Toluene	5.4E+00	2.6E+06	--	2E-06	--
24402 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.9E+01	3.7E+03	--	5E-03	--
24402 NEPTUNE AVE	1,3,5-Trimethylbenzene	6.6E+00	3.7E+03	--	2E-03	--
24402 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	2.6E+06	--	6E-06	--
24402 NEPTUNE AVE	4-Ethyltoluene	1.3E+01	5.2E+04	--	3E-04	--
24402 NEPTUNE AVE	Benzene	5.1E+00	1.6E+04	4.2E+01	3E-04	1E-07
24402 NEPTUNE AVE	Ethanol	1.5E+01	2.1E+06	--	7E-06	--
24402 NEPTUNE AVE	Hexane	4.3E+00	3.7E+05	--	1E-05	--
24402 NEPTUNE AVE	Naphthalene	2.7E+00	1.6E+03	3.6E+01	2E-03	8E-08
24402 NEPTUNE AVE	o-Xylene	1.0E+01	5.2E+04	--	2E-04	--
24402 NEPTUNE AVE	p/m-Xylene	2.3E+01	5.2E+04	--	4E-04	--
24402 NEPTUNE AVE	Toluene	4.3E+01	2.6E+06	--	2E-05	--
24402 PANAMA AVE	Chloroform	7.2E+00	5.1E+04	2.3E+02	1E-04	3E-08
24402 PANAMA AVE	Cyclohexane	9.9E+00	3.1E+06	--	3E-06	--
24402 PANAMA AVE	Naphthalene	1.1E+01	1.6E+03	3.6E+01	7E-03	3E-07
24402 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+00	2.6E+06	--	3E-06	--
24402 RAVENNA AVE	Bromodichloromethane	9.0E+00	3.7E+04	3.3E+01	3E-04	3E-07
24402 RAVENNA AVE	Chloroform	2.4E+02	5.1E+04	2.3E+02	5E-03	1E-06
24402 RAVENNA AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24402 RAVENNA AVE	Hexane	2.0E+00	3.7E+05	--	6E-06	--
24402 RAVENNA AVE	Isopropanol	1.7E+03	3.7E+06	--	5E-04	--
24402 RAVENNA AVE	Naphthalene	1.0E+00	1.6E+03	3.6E+01	6E-04	3E-08
24402 RAVENNA AVE	Toluene	3.0E+00	2.6E+06	--	1E-06	--
24403 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.1E+01	2.6E+06	--	8E-06	--
24403 NEPTUNE AVE	Carbon Disulfide	2.1E+01	3.7E+05	--	6E-05	--
24403 NEPTUNE AVE	Chloroform	7.1E+00	5.1E+04	2.3E+02	1E-04	3E-08
24403 NEPTUNE AVE	Ethanol	1.8E+01	2.1E+06	--	9E-06	--
24403 NEPTUNE AVE	Naphthalene	3.9E+00	1.6E+03	3.6E+01	3E-03	1E-07
24403 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	3.0E+01	2.6E+06	--	1E-05	--
24403 RAVENNA AVE	Benzene	5.9E+00	1.6E+04	4.2E+01	4E-04	1E-07
24403 RAVENNA AVE	Carbon Disulfide	4.7E+00	3.7E+05	--	1E-05	--
24403 RAVENNA AVE	Naphthalene	6.1E+00	1.6E+03	3.6E+01	4E-03	2E-07
24403 RAVENNA AVE	Toluene	3.4E+00	2.6E+06	--	1E-06	--
24405 MARBELLA AVE	1,4-Dioxane	2.5E+01	1.6E+06	1.6E+02	2E-05	2E-07
24405 MARBELLA AVE	Isopropanol	1.1E+01	3.7E+06	--	3E-06	--
24405 MARBELLA AVE	Naphthalene	6.3E+00	1.6E+03	3.6E+01	4E-03	2E-07
24405 MARBELLA AVE	Tetrachloroethene	1.2E+02	2.1E+04	2.1E+02	6E-03	6E-07
24406 MARBELLA AVE	2,2,4-Trimethylpentane	7.5E+00	5.2E+05	--	1E-05	--
24406 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24406 MARBELLA AVE	Benzene	8.7E+00	1.6E+04	4.2E+01	6E-04	2E-07
24406 MARBELLA AVE	Chloroform	6.4E+00	5.1E+04	2.3E+02	1E-04	3E-08
24406 MARBELLA AVE	Cumene (Isopropylbenzene)	8.8E+00	2.1E+05	--	4E-05	--
24406 MARBELLA AVE	Cyclohexane	8.9E+01	3.1E+06	--	3E-05	--
24406 MARBELLA AVE	Ethanol	2.0E+01	2.1E+06	--	1E-05	--
24406 MARBELLA AVE	Ethylbenzene	1.4E+01	5.2E+05	4.9E+02	3E-05	3E-08
24406 MARBELLA AVE	Heptane	7.0E+00	3.7E+05	--	2E-05	--
24406 MARBELLA AVE	Hexane	4.7E+00	3.7E+05	--	1E-05	--
24406 MARBELLA AVE	Isopropanol	2.9E+01	3.7E+06	--	8E-06	--
24406 MARBELLA AVE	Naphthalene	1.8E+00	1.6E+03	3.6E+01	1E-03	5E-08
24406 MARBELLA AVE	p/m-Xylene	1.2E+01	5.2E+04	--	2E-04	--
24406 MARBELLA AVE	Toluene	2.2E+01	2.6E+06	--	8E-06	--
24406 NEPTUNE AVE	1,2,4-Trimethylbenzene	9.1E+00	3.7E+03	--	3E-03	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24406 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.1E+02	2.6E+06	--	8E-05	--
24406 NEPTUNE AVE	2-Hexanone	2.8E+00	1.6E+04	--	2E-04	--
24406 NEPTUNE AVE	4-Ethyltoluene	6.1E+00	5.2E+04	--	1E-04	--
24406 NEPTUNE AVE	Benzene	7.6E+00	1.6E+04	4.2E+01	5E-04	2E-07
24406 NEPTUNE AVE	Carbon Disulfide	1.8E+01	3.7E+05	--	5E-05	--
24406 NEPTUNE AVE	Carbon Tetrachloride	8.8E+01	5.2E+04	2.9E+01	2E-03	3E-06
24406 NEPTUNE AVE	Chloroform	4.2E+01	5.1E+04	2.3E+02	8E-04	2E-07
24406 NEPTUNE AVE	Ethanol	1.2E+03	2.1E+06	--	6E-04	--
24406 NEPTUNE AVE	Ethylbenzene	6.5E+00	5.2E+05	4.9E+02	1E-05	1E-08
24406 NEPTUNE AVE	Isopropanol	2.0E+02	3.7E+06	--	6E-05	--
24406 NEPTUNE AVE	Methylene Chloride	7.3E+01	3.1E+05	1.2E+03	2E-04	6E-08
24406 NEPTUNE AVE	Naphthalene	8.0E+01	1.6E+03	3.6E+01	5E-02	2E-06
24406 NEPTUNE AVE	o-Xylene	6.0E+00	5.2E+04	--	1E-04	--
24406 NEPTUNE AVE	p/m-Xylene	1.3E+01	5.2E+04	--	3E-04	--
24406 NEPTUNE AVE	Tetrahydrofuran	7.7E+01	1.0E+06	--	7E-05	--
24406 NEPTUNE AVE	Toluene	9.4E+00	2.6E+06	--	4E-06	--
24406 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24406 PANAMA AVE	Carbon Disulfide	4.5E+00	3.7E+05	--	1E-05	--
24406 PANAMA AVE	Chloroform	6.4E+00	5.1E+04	2.3E+02	1E-04	3E-08
24406 PANAMA AVE	Cumene (Isopropylbenzene)	8.7E+00	2.1E+05	--	4E-05	--
24406 PANAMA AVE	Ethanol	4.2E+02	2.1E+06	--	2E-04	--
24406 PANAMA AVE	Hexane	4.1E+00	3.7E+05	--	1E-05	--
24406 PANAMA AVE	Isopropanol	2.4E+01	3.7E+06	--	7E-06	--
24406 PANAMA AVE	Naphthalene	6.0E+00	1.6E+03	3.6E+01	4E-03	2E-07
24406 PANAMA AVE	Toluene	6.6E+00	2.6E+06	--	3E-06	--
24406 PANAMA AVE	Trichloroethene	6.7E+01	1.0E+03	2.2E+02	6E-02	3E-07
24406 RAVENNA AVE	Naphthalene	1.2E+00	1.6E+03	3.6E+01	8E-04	3E-08
24409 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.7E+01	2.6E+06	--	7E-06	--
24409 NEPTUNE AVE	Carbon Disulfide	5.7E+00	3.7E+05	--	2E-05	--
24409 NEPTUNE AVE	Chloroform	1.7E+00	5.1E+04	2.3E+02	3E-05	7E-09
24409 NEPTUNE AVE	Ethanol	1.9E+01	2.1E+06	--	9E-06	--
24409 NEPTUNE AVE	Naphthalene	4.7E+00	1.6E+03	3.6E+01	3E-03	1E-07
24409 RAVENNA AVE	1,4-Dioxane	3.6E+01	1.6E+06	1.6E+02	2E-05	2E-07
24409 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	3.4E+00	2.6E+06	--	1E-06	--
24409 RAVENNA AVE	Chloroform	9.8E+00	5.1E+04	2.3E+02	2E-04	4E-08
24409 RAVENNA AVE	Naphthalene	1.5E+00	1.6E+03	3.6E+01	1E-03	4E-08
24410 PANAMA AVE	1,2,4-Trimethylbenzene	7.9E+00	3.7E+03	--	2E-03	--
24410 PANAMA AVE	4-Ethyltoluene	6.2E+00	5.2E+04	--	1E-04	--
24410 PANAMA AVE	Chloroform	4.2E+00	5.1E+04	2.3E+02	8E-05	2E-08
24410 PANAMA AVE	Ethanol	1.7E+01	2.1E+06	--	8E-06	--
24410 PANAMA AVE	Naphthalene	1.0E+00	1.6E+03	3.6E+01	6E-04	3E-08
24410 PANAMA AVE	p/m-Xylene	7.5E+00	5.2E+04	--	1E-04	--
24410 PANAMA AVE	Tetrachloroethene	1.9E+00	2.1E+04	2.1E+02	9E-05	9E-09
24411 MARBELLA AVE	1,2,4-Trimethylbenzene	1.5E+01	3.7E+03	--	4E-03	--
24411 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24411 MARBELLA AVE	4-Ethyltoluene	1.3E+01	5.2E+04	--	3E-04	--
24411 MARBELLA AVE	Benzene	8.4E+00	1.6E+04	4.2E+01	5E-04	2E-07
24411 MARBELLA AVE	Carbon Disulfide	6.4E+00	3.7E+05	--	2E-05	--
24411 MARBELLA AVE	Ethanol	2.8E+01	2.1E+06	--	1E-05	--
24411 MARBELLA AVE	Ethylbenzene	7.5E+00	5.2E+05	4.9E+02	1E-05	2E-08
24411 MARBELLA AVE	Hexane	6.1E+00	3.7E+05	--	2E-05	--
24411 MARBELLA AVE	Isopropanol	2.7E+01	3.7E+06	--	7E-06	--
24411 MARBELLA AVE	Naphthalene	2.5E+01	1.6E+03	3.6E+01	2E-02	7E-07
24411 MARBELLA AVE	o-Xylene	1.3E+01	5.2E+04	--	3E-04	--
24411 MARBELLA AVE	p/m-Xylene	2.7E+01	5.2E+04	--	5E-04	--
24411 MARBELLA AVE	Tetrachloroethene	1.9E+01	2.1E+04	2.1E+02	9E-04	9E-08
24411 MARBELLA AVE	Toluene	4.8E+01	2.6E+06	--	2E-05	--
24411 MARBELLA AVE	Trichloroethene	3.7E+01	1.0E+03	2.2E+02	4E-02	2E-07
24411 PANAMA AVE	1,2,4-Trimethylbenzene	3.2E+01	3.7E+03	--	9E-03	--
24411 PANAMA AVE	1,3,5-Trimethylbenzene	1.2E+01	3.7E+03	--	3E-03	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24411 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	5.0E+00	2.6E+06	--	2E-06	--
24411 PANAMA AVE	4-Ethyltoluene	2.9E+01	5.2E+04	--	6E-04	--
24411 PANAMA AVE	Benzene	3.4E+01	1.6E+04	4.2E+01	2E-03	8E-07
24411 PANAMA AVE	Carbon Disulfide	6.6E+01	3.7E+05	--	2E-04	--
24411 PANAMA AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24411 PANAMA AVE	Ethylbenzene	2.2E+01	5.2E+05	4.9E+02	4E-05	5E-08
24411 PANAMA AVE	Naphthalene	3.7E+00	1.6E+03	3.6E+01	2E-03	1E-07
24411 PANAMA AVE	o-Xylene	8.7E+01	5.2E+04	--	2E-03	--
24411 PANAMA AVE	p/m-Xylene	1.9E+02	5.2E+04	--	4E-03	--
24411 PANAMA AVE	Tetrachloroethene	7.4E+01	2.1E+04	2.1E+02	4E-03	4E-07
24411 PANAMA AVE	Toluene	1.9E+02	2.6E+06	--	7E-05	--
24412 MARBELLA AVE	1,4-Dioxane	2.0E+01	1.6E+06	1.6E+02	1E-05	1E-07
24412 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	2.6E+06	--	4E-06	--
24412 MARBELLA AVE	2-Hexanone	2.2E+00	1.6E+04	--	1E-04	--
24412 MARBELLA AVE	Benzene	5.1E+00	1.6E+04	4.2E+01	3E-04	1E-07
24412 MARBELLA AVE	Chloroform	1.8E+01	5.1E+04	2.3E+02	4E-04	8E-08
24412 MARBELLA AVE	cis-1,2-Dichloroethene	3.2E+01	3.7E+03	--	9E-03	--
24412 MARBELLA AVE	Cumene (Isopropylbenzene)	2.2E+00	2.1E+05	--	1E-05	--
24412 MARBELLA AVE	Ethanol	2.2E+01	2.1E+06	--	1E-05	--
24412 MARBELLA AVE	Isopropanol	4.7E+01	3.7E+06	--	1E-05	--
24412 MARBELLA AVE	Methyl-tert-Butyl Ether	1.9E+01	1.6E+06	4.7E+03	1E-05	4E-09
24412 MARBELLA AVE	Naphthalene	4.6E-01	1.6E+03	3.6E+01	3E-04	1E-08
24412 MARBELLA AVE	Tetrachloroethene	1.8E+00	2.1E+04	2.1E+02	9E-05	9E-09
24412 MARBELLA AVE	Toluene	1.4E+01	2.6E+06	--	5E-06	--
24412 MARBELLA AVE	Trichloroethene	7.2E+02	1.0E+03	2.2E+02	7E-01	3E-06
24412 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	8.4E+00	2.6E+06	--	3E-06	--
24412 RAVENNA AVE	Benzene	8.7E+00	1.6E+04	4.2E+01	6E-04	2E-07
24412 RAVENNA AVE	Ethanol	1.7E+01	2.1E+06	--	8E-06	--
24412 RAVENNA AVE	Tetrahydrofuran	4.6E+00	1.0E+06	--	4E-06	--
24413 NEPTUNE AVE	Benzene	3.9E+00	1.6E+04	4.2E+01	3E-04	9E-08
24413 NEPTUNE AVE	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
24413 NEPTUNE AVE	Ethylbenzene	3.1E+01	5.2E+05	4.9E+02	6E-05	6E-08
24413 NEPTUNE AVE	Heptane	3.8E+01	3.7E+05	--	1E-04	--
24413 NEPTUNE AVE	Hexane	3.2E+01	3.7E+05	--	9E-05	--
24413 NEPTUNE AVE	Naphthalene	6.3E+00	1.6E+03	3.6E+01	4E-03	2E-07
24413 NEPTUNE AVE	p/m-Xylene	8.7E+00	5.2E+04	--	2E-04	--
24413 NEPTUNE AVE	Toluene	1.2E+03	2.6E+06	--	5E-04	--
24413 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	7.2E+00	2.6E+06	--	3E-06	--
24413 RAVENNA AVE	Benzene	4.1E+00	1.6E+04	4.2E+01	3E-04	1E-07
24413 RAVENNA AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24413 RAVENNA AVE	Hexane	4.2E+00	3.7E+05	--	1E-05	--
24413 RAVENNA AVE	Naphthalene	8.0E+00	1.6E+03	3.6E+01	5E-03	2E-07
24416 MARBELLA AVE	Carbon Disulfide	3.8E+00	3.7E+05	--	1E-05	--
24416 MARBELLA AVE	Chloroform	1.9E+01	5.1E+04	2.3E+02	4E-04	8E-08
24416 MARBELLA AVE	Naphthalene	1.5E+00	1.6E+03	3.6E+01	1E-03	4E-08
24416 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	7.7E+00	2.6E+06	--	3E-06	--
24416 NEPTUNE AVE	Chloroform	1.3E+01	5.1E+04	2.3E+02	3E-04	6E-08
24416 NEPTUNE AVE	Isopropanol	1.2E+01	3.7E+06	--	3E-06	--
24416 NEPTUNE AVE	Naphthalene	2.1E+00	1.6E+03	3.6E+01	1E-03	6E-08
24416 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	5.4E+00	2.6E+06	--	2E-06	--
24416 PANAMA AVE	Benzene	2.7E+01	1.6E+04	4.2E+01	2E-03	6E-07
24416 PANAMA AVE	Ethanol	1.7E+01	2.1E+06	--	8E-06	--
24416 PANAMA AVE	Hexane	4.2E+00	3.7E+05	--	1E-05	--
24416 PANAMA AVE	Isopropanol	5.1E+00	3.7E+06	--	1E-06	--
24416 PANAMA AVE	Naphthalene	7.5E+00	1.6E+03	3.6E+01	5E-03	2E-07
24416 PANAMA AVE	Toluene	1.3E+01	2.6E+06	--	5E-06	--
24416 PANAMA AVE	Trichloroethene	5.9E+00	1.0E+03	2.2E+02	6E-03	3E-08
24416 RAVENNA AVE	1,2,4-Trimethylbenzene	7.3E+00	3.7E+03	--	2E-03	--
24416 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.9E+01	2.6E+06	--	7E-06	--
24416 RAVENNA AVE	Benzene	2.2E+02	1.6E+04	4.2E+01	1E-02	5E-06

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24416 RAVENNA AVE	Carbon Disulfide	1.4E+01	3.7E+05	--	4E-05	--
24416 RAVENNA AVE	Cumene (Isopropylbenzene)	2.4E+01	2.1E+05	--	1E-04	--
24416 RAVENNA AVE	Ethanol	2.8E+02	2.1E+06	--	1E-04	--
24416 RAVENNA AVE	Isopropanol	1.9E+01	3.7E+05	--	5E-06	--
24416 RAVENNA AVE	Methylene Chloride	6.9E+00	3.1E+05	1.2E+03	2E-05	6E-09
24416 RAVENNA AVE	Naphthalene	9.3E+00	1.6E+03	3.6E+01	6E-03	3E-07
24416 RAVENNA AVE	p/m-Xylene	9.0E+00	5.2E+04	--	2E-04	--
24416 RAVENNA AVE	Tetrahydrofuran	7.4E+00	1.0E+06	--	7E-06	--
24416 RAVENNA AVE	Toluene	9.5E+00	2.6E+06	--	4E-06	--
24417 MARBELLA AVE	Naphthalene	3.3E+00	1.6E+03	3.6E+01	2E-03	9E-08
24417 MARBELLA AVE	Tetrachloroethene	1.9E+01	2.1E+04	2.1E+02	9E-04	9E-08
24417 MARBELLA AVE	Tetrahydrofuran	3.8E+00	1.0E+06	--	4E-06	--
24419 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	2.6E+06	--	5E-06	--
24419 NEPTUNE AVE	Benzene	8.9E+00	1.6E+04	4.2E+01	6E-04	2E-07
24419 NEPTUNE AVE	Chloroform	1.4E+03	5.1E+04	2.3E+02	3E-02	6E-06
24419 NEPTUNE AVE	Ethanol	9.2E+01	2.1E+06	--	4E-05	--
24419 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	2.6E+06	--	5E-06	--
24419 RAVENNA AVE	Benzene	3.2E+00	1.6E+04	4.2E+01	2E-04	8E-08
24419 RAVENNA AVE	Chloroform	2.5E+01	5.1E+04	2.3E+02	5E-04	1E-07
24419 RAVENNA AVE	Ethanol	1.5E+01	2.1E+06	--	7E-06	--
24419 RAVENNA AVE	Naphthalene	1.6E+00	1.6E+03	3.6E+01	1E-03	5E-08
24420 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+01	2.6E+06	--	7E-06	--
24420 PANAMA AVE	Ethanol	3.4E+01	2.1E+06	--	2E-05	--
24420 PANAMA AVE	Naphthalene	2.6E+00	1.6E+03	3.6E+01	2E-03	7E-08
24421 PANAMA AVE	2,2,4-Trimethylpentane	2.0E+00	5.2E+05	--	4E-06	--
24421 PANAMA AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24421 PANAMA AVE	Naphthalene	2.0E+00	1.6E+03	3.6E+01	1E-03	6E-08
24421 PANAMA AVE	Tetrachloroethene	2.3E+00	2.1E+04	2.1E+02	1E-04	1E-08
24421 PANAMA AVE	Trichloroethene	2.7E+00	1.0E+03	2.2E+02	3E-03	1E-08
24422 MARBELLA AVE	2,2,4-Trimethylpentane	6.3E+00	5.2E+05	--	1E-05	--
24422 MARBELLA AVE	Bromodichloromethane	3.5E+00	3.7E+04	3.3E+01	1E-04	1E-07
24422 MARBELLA AVE	Chloroform	1.8E+01	5.1E+04	2.3E+02	4E-04	8E-08
24422 MARBELLA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24422 MARBELLA AVE	Naphthalene	4.6E+00	1.6E+03	3.6E+01	3E-03	1E-07
24422 MARBELLA AVE	p/m-Xylene	5.4E+00	5.2E+04	--	1E-04	--
24422 MARBELLA AVE	Toluene	4.6E+00	2.6E+06	--	2E-06	--
24422 NEPTUNE AVE	1,2,4-Trimethylbenzene	4.3E+01	3.7E+03	--	1E-02	--
24422 NEPTUNE AVE	1,3,5-Trimethylbenzene	1.4E+01	3.7E+03	--	4E-03	--
24422 NEPTUNE AVE	1,4-Dioxane	2.2E+01	1.6E+06	1.6E+02	1E-05	1E-07
24422 NEPTUNE AVE	4-Ethyltoluene	2.8E+01	5.2E+04	--	5E-04	--
24422 NEPTUNE AVE	Benzene	5.8E+00	1.6E+04	4.2E+01	4E-04	1E-07
24422 NEPTUNE AVE	Chloroform	4.8E+01	5.1E+04	2.3E+02	9E-04	2E-07
24422 NEPTUNE AVE	Cumene (Isopropylbenzene)	6.3E+00	2.1E+05	--	3E-05	--
24422 NEPTUNE AVE	Ethanol	2.0E+01	2.1E+06	--	1E-05	--
24422 NEPTUNE AVE	Ethylbenzene	6.8E+00	5.2E+05	4.9E+02	1E-05	1E-08
24422 NEPTUNE AVE	Hexane	6.9E+00	3.7E+05	--	2E-05	--
24422 NEPTUNE AVE	o-Xylene	2.2E+01	5.2E+04	--	4E-04	--
24422 NEPTUNE AVE	p/m-Xylene	4.6E+01	5.2E+04	--	9E-04	--
24422 NEPTUNE AVE	Toluene	1.7E+01	2.6E+06	--	7E-06	--
24422 RAVENNA AVE	Ethanol	1.0E+01	2.1E+06	--	5E-06	--
24422 RAVENNA AVE	Naphthalene	2.2E+00	1.6E+03	3.6E+01	1E-03	6E-08
24422 RAVENNA AVE	Toluene	7.8E+01	2.6E+06	--	3E-05	--
24423 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.9E+00	2.6E+06	--	2E-06	--
24423 MARBELLA AVE	Benzene	5.6E+00	1.6E+04	4.2E+01	4E-04	1E-07
24423 MARBELLA AVE	Carbon Disulfide	2.7E+01	3.7E+05	--	7E-05	--
24423 MARBELLA AVE	Ethanol	2.9E+01	2.1E+06	--	1E-05	--
24423 MARBELLA AVE	Naphthalene	1.2E+00	1.6E+03	3.6E+01	8E-04	3E-08
24423 MARBELLA AVE	Tetrachloroethene	2.6E+02	2.1E+04	2.1E+02	1E-02	1E-06
24423 NEPTUNE AVE	1,2,4-Trimethylbenzene	4.5E+00	3.7E+03	--	1E-03	--
24423 NEPTUNE AVE	2,2,4-Trimethylpentane	6.9E+01	5.2E+05	--	1E-04	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24423 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	2.6E+06	--	5E-06	--
24423 NEPTUNE AVE	4-Ethyltoluene	5.4E+00	5.2E+04	--	1E-04	--
24423 NEPTUNE AVE	Benzene	1.6E+01	1.6E+04	4.2E+01	1E-03	4E-07
24423 NEPTUNE AVE	Bromomethane	3.5E+01	2.6E+03	--	1E-02	--
24423 NEPTUNE AVE	Carbon Disulfide	8.1E+01	3.7E+05	--	2E-04	--
24423 NEPTUNE AVE	Chloroform	9.3E+02	5.1E+04	2.3E+02	2E-02	4E-06
24423 NEPTUNE AVE	Cyclohexane	2.3E+01	3.1E+06	--	7E-06	--
24423 NEPTUNE AVE	Ethanol	2.2E+01	2.1E+06	--	1E-05	--
24423 NEPTUNE AVE	Ethylbenzene	4.2E+00	5.2E+05	4.9E+02	8E-06	9E-09
24423 NEPTUNE AVE	Heptane	8.6E+02	3.7E+05	--	2E-03	--
24423 NEPTUNE AVE	Hexane	6.3E+02	3.7E+05	--	2E-03	--
24423 NEPTUNE AVE	Isopropanol	1.7E+04	3.7E+06	--	5E-03	--
24423 NEPTUNE AVE	Methylene Chloride	5.5E+02	3.1E+05	1.2E+03	2E-03	5E-07
24423 NEPTUNE AVE	Naphthalene	2.8E+00	1.6E+03	3.6E+01	2E-03	8E-08
24423 NEPTUNE AVE	o-Xylene	5.8E+00	5.2E+04	--	1E-04	--
24423 NEPTUNE AVE	p/m-Xylene	1.6E+01	5.2E+04	--	3E-04	--
24423 NEPTUNE AVE	Toluene	1.8E+02	2.6E+06	--	7E-05	--
24423 NEPTUNE AVE	Vinyl Chloride	2.7E+01	5.2E+04	1.6E+01	5E-04	2E-06
24423 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	5.9E+00	2.6E+06	--	2E-06	--
24423 RAVENNA AVE	Benzene	3.9E+00	1.6E+04	4.2E+01	3E-04	9E-08
24423 RAVENNA AVE	Chloroform	1.0E+02	5.1E+04	2.3E+02	2E-03	4E-07
24423 RAVENNA AVE	Cumene (Isopropylbenzene)	6.0E+00	2.1E+05	--	3E-05	--
24423 RAVENNA AVE	Naphthalene	5.8E+00	1.6E+03	3.6E+01	4E-03	2E-07
24426 MARBELLA AVE	1,2,4-Trimethylbenzene	5.7E+00	3.7E+03	--	2E-03	--
24426 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	6.0E+00	2.6E+06	--	2E-06	--
24426 MARBELLA AVE	Carbon Disulfide	5.7E+00	3.7E+05	--	2E-05	--
24426 MARBELLA AVE	Naphthalene	1.4E+01	1.6E+03	3.6E+01	9E-03	4E-07
24426 MARBELLA AVE	Tetrachloroethene	1.9E+01	2.1E+04	2.1E+02	9E-04	9E-08
24426 NEPTUNE AVE	1,4-Dioxane	1.8E+01	1.6E+06	1.6E+02	1E-05	1E-07
24426 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+00	2.6E+06	--	3E-06	--
24426 NEPTUNE AVE	Benzene	1.7E+01	1.6E+04	4.2E+01	1E-03	4E-07
24426 NEPTUNE AVE	Bromomethane	4.5E+00	2.6E+03	--	2E-03	--
24426 NEPTUNE AVE	Carbon Disulfide	1.3E+01	3.7E+05	--	4E-05	--
24426 NEPTUNE AVE	Cumene (Isopropylbenzene)	1.1E+01	2.1E+05	--	5E-05	--
24426 NEPTUNE AVE	Ethanol	9.6E+00	2.1E+06	--	5E-06	--
24426 NEPTUNE AVE	Isopropanol	1.9E+01	3.7E+06	--	5E-06	--
24426 NEPTUNE AVE	Methylene Chloride	5.0E+00	3.1E+05	1.2E+03	2E-05	4E-09
24426 NEPTUNE AVE	Naphthalene	5.2E+00	1.6E+03	3.6E+01	3E-03	2E-07
24426 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	9.7E+00	2.6E+06	--	4E-06	--
24426 PANAMA AVE	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
24426 PANAMA AVE	Heptane	6.8E+00	3.7E+05	--	2E-05	--
24426 PANAMA AVE	Hexane	1.2E+01	3.7E+05	--	3E-05	--
24426 PANAMA AVE	Methylene Chloride	4.5E+00	3.1E+05	1.2E+03	1E-05	4E-09
24426 PANAMA AVE	Naphthalene	2.1E+00	1.6E+03	3.6E+01	1E-03	6E-08
24426 PANAMA AVE	Toluene	2.4E+01	2.6E+06	--	9E-06	--
24426 RAVENNA AVE	1,2,4-Trimethylbenzene	2.2E+01	3.7E+03	--	6E-03	--
24426 RAVENNA AVE	1,3,5-Trimethylbenzene	5.7E+00	3.7E+03	--	2E-03	--
24426 RAVENNA AVE	2,2,4-Trimethylpentane	6.2E+00	5.2E+05	--	1E-05	--
24426 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	7.2E+00	2.6E+06	--	3E-06	--
24426 RAVENNA AVE	4-Ethyltoluene	1.5E+01	5.2E+04	--	3E-04	--
24426 RAVENNA AVE	Ethanol	8.9E+00	2.1E+06	--	4E-06	--
24426 RAVENNA AVE	Ethylbenzene	5.6E+00	5.2E+05	4.9E+02	1E-05	1E-08
24426 RAVENNA AVE	Naphthalene	2.6E+01	1.6E+03	3.6E+01	2E-02	7E-07
24426 RAVENNA AVE	o-Xylene	9.8E+00	5.2E+04	--	2E-04	--
24426 RAVENNA AVE	p/m-Xylene	1.9E+01	5.2E+04	--	4E-04	--
24426 RAVENNA AVE	Toluene	1.3E+01	2.6E+06	--	5E-06	--
24427 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	2.6E+06	--	5E-06	--
24427 MARBELLA AVE	Ethanol	1.9E+01	2.1E+06	--	9E-06	--
24427 MARBELLA AVE	Naphthalene	2.9E+00	1.6E+03	3.6E+01	2E-03	8E-08
24427 MARBELLA AVE	Tetrachloroethene	8.0E+00	2.1E+04	2.1E+02	4E-04	4E-08

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24427 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+00	2.6E+06	--	3E-06	--
24427 PANAMA AVE	Benzene	6.7E+00	1.6E+04	4.2E+01	4E-04	2E-07
24427 PANAMA AVE	Chloroform	3.4E+01	5.1E+04	2.3E+02	7E-04	2E-07
24427 PANAMA AVE	Naphthalene	7.4E-01	1.6E+03	3.6E+01	5E-04	2E-08
24429 NEPTUNE AVE	1,2,4-Trimethylbenzene	6.2E+00	3.7E+03	--	2E-03	--
24429 NEPTUNE AVE	2,2,4-Trimethylpentane	5.5E+00	5.2E+05	--	1E-05	--
24429 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.0E+01	2.6E+06	--	2E-05	--
24429 NEPTUNE AVE	Bromomethane	1.0E+01	2.6E+03	--	4E-03	--
24429 NEPTUNE AVE	cis-1,2-Dichloroethene	3.1E+01	3.7E+03	--	9E-03	--
24429 NEPTUNE AVE	Ethanol	4.0E+01	2.1E+06	--	2E-05	--
24429 NEPTUNE AVE	Isopropanol	3.5E+01	3.7E+06	--	1E-05	--
24429 NEPTUNE AVE	Methylene Chloride	4.6E+00	3.1E+05	1.2E+03	2E-05	4E-09
24429 NEPTUNE AVE	Naphthalene	1.4E+00	1.6E+03	3.6E+01	9E-04	4E-08
24429 NEPTUNE AVE	p/m-Xylene	4.5E+00	5.2E+04	--	9E-05	--
24429 NEPTUNE AVE	Tetrachloroethene	3.6E+02	2.1E+04	2.1E+02	2E-02	2E-06
24429 NEPTUNE AVE	Tetrahydrofuran	3.3E+01	1.0E+06	--	3E-05	--
24429 NEPTUNE AVE	Toluene	3.3E+01	2.6E+06	--	1E-05	--
24429 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	7.8E+00	2.6E+06	--	3E-06	--
24429 RAVENNA AVE	Carbon Disulfide	7.0E+00	3.7E+05	--	2E-05	--
24429 RAVENNA AVE	Chloroform	2.4E+01	5.1E+04	2.3E+02	5E-04	1E-07
24429 RAVENNA AVE	Isopropanol	2.5E+01	3.7E+06	--	7E-06	--
24429 RAVENNA AVE	Naphthalene	1.6E+00	1.6E+03	3.6E+01	1E-03	5E-08
24430 PANAMA AVE	1,4-Dichlorobenzene	1.1E+01	4.2E+05	1.1E+02	3E-05	1E-07
24430 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	5.9E+01	2.6E+06	--	2E-05	--
24430 PANAMA AVE	Benzene	5.8E+00	1.6E+04	4.2E+01	4E-04	1E-07
24430 PANAMA AVE	Carbon Disulfide	1.7E+01	3.7E+05	--	5E-05	--
24430 PANAMA AVE	Ethanol	3.7E+01	2.1E+06	--	2E-05	--
24430 PANAMA AVE	Isopropanol	1.8E+01	3.7E+06	--	5E-06	--
24430 PANAMA AVE	Naphthalene	1.1E+01	1.6E+03	3.6E+01	7E-03	3E-07
24430 PANAMA AVE	p/m-Xylene	1.9E+01	5.2E+04	--	4E-04	--
24430 PANAMA AVE	Tetrachloroethene	2.1E+01	2.1E+04	2.1E+02	1E-03	1E-07
24430 PANAMA AVE	Toluene	3.1E+01	2.6E+06	--	1E-05	--
24431 PANAMA AVE	1,2,4-Trimethylbenzene	6.1E+00	3.7E+03	--	2E-03	--
24431 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.2E+00	2.6E+06	--	2E-06	--
24431 PANAMA AVE	Ethanol	9.7E+00	2.1E+06	--	5E-06	--
24431 PANAMA AVE	Naphthalene	4.3E+00	1.6E+03	3.6E+01	3E-03	1E-07
24431 PANAMA AVE	o-Xylene	7.7E+00	5.2E+04	--	2E-04	--
24431 PANAMA AVE	p/m-Xylene	2.1E+01	5.2E+04	--	4E-04	--
24431 PANAMA AVE	Toluene	2.1E+01	2.6E+06	--	8E-06	--
24432 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24432 MARBELLA AVE	Benzene	8.3E+00	1.6E+04	4.2E+01	5E-04	2E-07
24432 MARBELLA AVE	Chloroform	1.4E+01	5.1E+04	2.3E+02	3E-04	6E-08
24432 MARBELLA AVE	Ethanol	1.8E+01	2.1E+06	--	9E-06	--
24432 MARBELLA AVE	Isopropanol	1.2E+01	3.7E+06	--	3E-06	--
24432 MARBELLA AVE	Naphthalene	5.9E+00	1.6E+03	3.6E+01	4E-03	2E-07
24432 MARBELLA AVE	o-Xylene	6.9E+00	5.2E+04	--	1E-04	--
24432 MARBELLA AVE	p/m-Xylene	1.9E+01	5.2E+04	--	4E-04	--
24432 MARBELLA AVE	Toluene	4.1E+01	2.6E+06	--	2E-05	--
24433 MARBELLA AVE	1,2,4-Trimethylbenzene	2.0E+02	3.7E+03	--	6E-02	--
24433 MARBELLA AVE	1,3,5-Trimethylbenzene	9.3E+01	3.7E+03	--	3E-02	--
24433 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.9E+01	2.6E+06	--	7E-06	--
24433 MARBELLA AVE	4-Ethyltoluene	2.3E+02	5.2E+04	--	4E-03	--
24433 MARBELLA AVE	Benzene	5.8E+00	1.6E+04	4.2E+01	4E-04	1E-07
24433 MARBELLA AVE	Chloroform	7.1E+00	5.1E+04	2.3E+02	1E-04	3E-08
24433 MARBELLA AVE	Cumene (Isopropylbenzene)	1.3E+01	2.1E+05	--	6E-05	--
24433 MARBELLA AVE	Ethanol	2.6E+01	2.1E+06	--	1E-05	--
24433 MARBELLA AVE	Ethylbenzene	1.0E+01	5.2E+05	4.9E+02	2E-05	2E-08
24433 MARBELLA AVE	Heptane	3.7E+00	3.7E+05	--	1E-05	--
24433 MARBELLA AVE	Isopropanol	9.3E+00	3.7E+06	--	3E-06	--
24433 MARBELLA AVE	Naphthalene	3.1E+01	1.6E+03	3.6E+01	2E-02	9E-07

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24433 MARBELLA AVE	o-Xylene	1.1E+02	5.2E+04	--	2E-03	--
24433 MARBELLA AVE	p/m-Xylene	8.7E+01	5.2E+04	--	2E-03	--
24433 MARBELLA AVE	Propylbenzene	1.4E+01	5.2E+05	--	3E-05	--
24433 MARBELLA AVE	Tetrachloroethene	2.0E+02	2.1E+04	2.1E+02	1E-02	1E-06
24433 MARBELLA AVE	Toluene	9.3E+00	2.6E+06	--	4E-06	--
24436 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	3.6E+01	2.6E+06	--	1E-05	--
24436 PANAMA AVE	Benzene	7.1E+00	1.6E+04	4.2E+01	5E-04	2E-07
24436 PANAMA AVE	Chloroform	9.8E+00	5.1E+04	2.3E+02	2E-04	4E-08
24436 PANAMA AVE	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
24436 PANAMA AVE	Isopropanol	2.8E+01	3.7E+06	--	8E-06	--
24436 PANAMA AVE	Naphthalene	3.4E+00	1.6E+03	3.6E+01	2E-03	1E-07
24436 PANAMA AVE	Tetrachloroethene	9.6E+00	2.1E+04	2.1E+02	5E-04	5E-08
24436 PANAMA AVE	Toluene	1.3E+01	2.6E+06	--	5E-06	--
24502 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	6.0E+00	2.6E+06	--	2E-06	--
24502 MARBELLA AVE	Bromodichloromethane	1.5E+01	3.7E+04	3.3E+01	4E-04	5E-07
24502 MARBELLA AVE	Bromomethane	5.9E+00	2.6E+03	--	2E-03	--
24502 MARBELLA AVE	Chloroform	8.3E+01	5.1E+04	2.3E+02	2E-03	4E-07
24502 MARBELLA AVE	Ethanol	2.4E+01	2.1E+06	--	1E-05	--
24502 MARBELLA AVE	Heptane	3.6E+00	3.7E+05	--	1E-05	--
24502 MARBELLA AVE	Naphthalene	3.4E+00	1.6E+03	3.6E+01	2E-03	1E-07
24502 MARBELLA AVE	Tetrahydrofuran	6.4E+00	1.0E+06	--	6E-06	--
24502 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.0E+01	3.7E+03	--	3E-03	--
24502 NEPTUNE AVE	4-Ethyltoluene	7.3E+00	5.2E+04	--	1E-04	--
24502 NEPTUNE AVE	Bromodichloromethane	4.2E+01	3.7E+04	3.3E+01	1E-03	1E-06
24502 NEPTUNE AVE	Chloroform	5.2E+02	5.1E+04	2.3E+02	1E-02	2E-06
24502 NEPTUNE AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24502 NEPTUNE AVE	Heptane	5.9E+00	3.7E+05	--	2E-05	--
24502 NEPTUNE AVE	Naphthalene	8.8E+00	1.6E+03	3.6E+01	6E-03	3E-07
24502 NEPTUNE AVE	p/m-Xylene	1.2E+01	5.2E+04	--	2E-04	--
24502 PANAMA AVE	1,2,4-Trimethylbenzene	1.7E+01	3.7E+03	--	5E-03	--
24502 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	4.1E+00	2.6E+06	--	2E-06	--
24502 PANAMA AVE	4-Ethyltoluene	6.9E+00	5.2E+04	--	1E-04	--
24502 PANAMA AVE	Benzene	4.9E+00	1.6E+04	4.2E+01	3E-04	1E-07
24502 PANAMA AVE	Naphthalene	1.2E+01	1.6E+03	3.6E+01	8E-03	3E-07
24502 PANAMA AVE	o-Xylene	1.4E+01	5.2E+04	--	3E-04	--
24502 PANAMA AVE	p/m-Xylene	2.6E+01	5.2E+04	--	5E-04	--
24502 PANAMA AVE	Toluene	2.5E+01	2.6E+06	--	1E-05	--
24502 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	2.6E+06	--	8E-06	--
24502 RAVENNA AVE	Benzene	9.6E+00	1.6E+04	4.2E+01	6E-04	2E-07
24502 RAVENNA AVE	Carbon Disulfide	5.7E+00	3.7E+05	--	2E-05	--
24502 RAVENNA AVE	Chloroform	7.7E+00	5.1E+04	2.3E+02	2E-04	3E-08
24502 RAVENNA AVE	Ethanol	3.9E+01	2.1E+06	--	2E-05	--
24502 RAVENNA AVE	Naphthalene	3.8E+00	1.6E+03	3.6E+01	2E-03	1E-07
24502 RAVENNA AVE	Tetrachloroethene	1.3E+01	2.1E+04	2.1E+02	6E-04	6E-08
24503 MARBELLA AVE	1,2,4-Trimethylbenzene	5.6E+00	3.7E+03	--	2E-03	--
24503 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	8.7E+00	2.6E+06	--	3E-06	--
24503 MARBELLA AVE	Ethanol	6.0E+00	2.1E+06	--	3E-06	--
24503 MARBELLA AVE	Naphthalene	3.5E+00	1.6E+03	3.6E+01	2E-03	1E-07
24503 MARBELLA AVE	Tetrachloroethene	2.2E+02	2.1E+04	2.1E+02	1E-02	1E-06
24503 MARBELLA AVE	Trichloroethene	4.7E+00	1.0E+03	2.2E+02	5E-03	2E-08
24503 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.7E+00	2.6E+06	--	2E-06	--
24503 NEPTUNE AVE	Benzene	4.1E+00	1.6E+04	4.2E+01	3E-04	1E-07
24503 NEPTUNE AVE	Chloroform	1.1E+03	5.1E+04	2.3E+02	2E-02	5E-06
24503 NEPTUNE AVE	Ethanol	8.3E+00	2.1E+06	--	4E-06	--
24503 NEPTUNE AVE	Ethylbenzene	6.2E+00	5.2E+05	4.9E+02	1E-05	1E-08
24503 NEPTUNE AVE	Isopropanol	2.1E+01	3.7E+06	--	6E-06	--
24503 NEPTUNE AVE	Naphthalene	3.2E+00	1.6E+03	3.6E+01	2E-03	9E-08
24503 NEPTUNE AVE	o-Xylene	4.6E+00	5.2E+04	--	9E-05	--
24503 NEPTUNE AVE	p/m-Xylene	2.0E+01	5.2E+04	--	4E-04	--
24503 NEPTUNE AVE	Toluene	2.1E+01	2.6E+06	--	8E-06	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24503 PANAMA AVE	2,2,4-Trimethylpentane	1.3E+01	5.2E+05	--	3E-05	--
24503 PANAMA AVE	Benzene	1.2E+01	1.6E+04	4.2E+01	8E-04	3E-07
24503 PANAMA AVE	Chloroform	2.2E+01	5.1E+04	2.3E+02	4E-04	1E-07
24503 PANAMA AVE	Cyclohexane	5.4E+01	3.1E+06	--	2E-05	--
24503 PANAMA AVE	Ethanol	2.9E+02	2.1E+06	--	1E-04	--
24503 PANAMA AVE	Heptane	1.5E+01	3.7E+05	--	4E-05	--
24503 PANAMA AVE	Hexane	6.2E+01	3.7E+05	--	2E-04	--
24503 PANAMA AVE	Naphthalene	4.5E+00	1.6E+03	3.6E+01	3E-03	1E-07
24503 PANAMA AVE	Tetrachloroethene	2.3E+01	2.1E+04	2.1E+02	1E-03	1E-07
24503 PANAMA AVE	Toluene	2.7E+01	2.6E+06	--	1E-05	--
24503 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24503 RAVENNA AVE	Carbon Disulfide	9.5E+00	3.7E+05	--	3E-05	--
24503 RAVENNA AVE	Chloroform	1.3E+01	5.1E+04	2.3E+02	3E-04	6E-08
24503 RAVENNA AVE	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
24503 RAVENNA AVE	Methylene Chloride	5.4E+00	3.1E+05	1.2E+03	2E-05	4E-09
24503 RAVENNA AVE	Naphthalene	6.0E-01	1.6E+03	3.6E+01	4E-04	2E-08
24503 RAVENNA AVE	Tetrachloroethene	1.9E+01	2.1E+04	2.1E+02	9E-04	9E-08
24506 MARBELLA AVE	1,2,4-Trimethylbenzene	8.5E+01	3.7E+03	--	2E-02	--
24506 MARBELLA AVE	1,3,5-Trimethylbenzene	2.9E+01	3.7E+03	--	8E-03	--
24506 MARBELLA AVE	2,2,4-Trimethylpentane	7.4E+00	5.2E+05	--	1E-05	--
24506 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.9E+01	2.6E+06	--	7E-06	--
24506 MARBELLA AVE	4-Ethyltoluene	1.0E+02	5.2E+04	--	2E-03	--
24506 MARBELLA AVE	Benzene	1.3E+02	1.6E+04	4.2E+01	8E-03	3E-06
24506 MARBELLA AVE	Bromomethane	6.9E+00	2.6E+03	--	3E-03	--
24506 MARBELLA AVE	Cyclohexane	4.8E+00	3.1E+06	--	2E-06	--
24506 MARBELLA AVE	Ethanol	3.5E+01	2.1E+06	--	2E-05	--
24506 MARBELLA AVE	Ethylbenzene	9.8E+01	5.2E+05	4.9E+02	2E-04	2E-07
24506 MARBELLA AVE	Heptane	1.1E+01	3.7E+05	--	3E-05	--
24506 MARBELLA AVE	Hexane	1.3E+01	3.7E+05	--	4E-05	--
24506 MARBELLA AVE	Methylene Chloride	5.7E+00	3.1E+05	1.2E+03	2E-05	5E-09
24506 MARBELLA AVE	Naphthalene	3.8E+00	1.6E+03	3.6E+01	2E-03	1E-07
24506 MARBELLA AVE	o-Xylene	1.9E+02	5.2E+04	--	4E-03	--
24506 MARBELLA AVE	p/m-Xylene	5.3E+02	5.2E+04	--	1E-02	--
24506 MARBELLA AVE	Propylbenzene	1.2E+01	5.2E+05	--	2E-05	--
24506 MARBELLA AVE	Toluene	4.0E+02	2.6E+06	--	2E-04	--
24507 MARBELLA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24507 MARBELLA AVE	Hexane	4.4E+00	3.7E+05	--	1E-05	--
24507 MARBELLA AVE	Naphthalene	1.4E+00	1.6E+03	3.6E+01	9E-04	4E-08
24507 MARBELLA AVE	Tetrachloroethene	1.3E+01	2.1E+04	2.1E+02	6E-04	6E-08
24508 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	2.6E+06	--	4E-06	--
24508 NEPTUNE AVE	Ethanol	2.0E+01	2.1E+06	--	1E-05	--
24508 NEPTUNE AVE	Naphthalene	2.3E+00	1.6E+03	3.6E+01	2E-03	6E-08
24508 NEPTUNE AVE	Trichloroethene	6.9E+00	1.0E+03	2.2E+02	7E-03	3E-08
24508 PANAMA AVE	1,2,4-Trichlorobenzene	1.3E+03	1.0E+03	--	1E+00	--
24508 PANAMA AVE	1,2,4-Trimethylbenzene	1.2E+03	3.7E+03	--	3E-01	--
24508 PANAMA AVE	1,3,5-Trimethylbenzene	1.6E+02	3.7E+03	--	4E-02	--
24508 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	2.6E+06	--	6E-06	--
24508 PANAMA AVE	4-Ethyltoluene	2.4E+02	5.2E+04	--	5E-03	--
24508 PANAMA AVE	Benzene	9.9E+00	1.6E+04	4.2E+01	6E-04	2E-07
24508 PANAMA AVE	Cumene (Isopropylbenzene)	1.0E+01	2.1E+05	--	5E-05	--
24508 PANAMA AVE	Ethanol	1.7E+01	2.1E+06	--	8E-06	--
24508 PANAMA AVE	Isopropanol	2.1E+01	3.7E+06	--	6E-06	--
24508 PANAMA AVE	Naphthalene	1.8E+02	1.6E+03	3.6E+01	1E-01	5E-06
24508 PANAMA AVE	o-Xylene	8.0E+00	5.2E+04	--	2E-04	--
24508 PANAMA AVE	p/m-Xylene	7.9E+00	5.2E+04	--	2E-04	--
24508 PANAMA AVE	Propylbenzene	2.7E+01	5.2E+05	--	5E-05	--
24508 PANAMA AVE	Toluene	3.4E+00	2.6E+06	--	1E-06	--
24508 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	2.6E+06	--	6E-06	--
24508 RAVENNA AVE	Chloroform	3.7E+00	5.1E+04	2.3E+02	7E-05	2E-08
24508 RAVENNA AVE	Ethanol	1.2E+01	2.1E+06	--	6E-06	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24508 RAVENNA AVE	Hexane	4.8E+00	3.7E+05	--	1E-05	--
24508 RAVENNA AVE	Naphthalene	2.0E+00	1.6E+03	3.6E+01	1E-03	6E-08
24509 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.1E+01	2.6E+06	--	8E-06	--
24509 NEPTUNE AVE	Benzene	4.4E+00	1.6E+04	4.2E+01	3E-04	1E-07
24509 NEPTUNE AVE	Cumene (Isopropylbenzene)	2.8E+00	2.1E+05	--	1E-05	--
24509 NEPTUNE AVE	Ethanol	2.6E+01	2.1E+06	--	1E-05	--
24509 NEPTUNE AVE	Naphthalene	2.6E+00	1.6E+03	3.6E+01	2E-03	7E-08
24509 NEPTUNE AVE	Toluene	1.3E+01	2.6E+06	--	5E-06	--
24509 PANAMA AVE	Carbon Disulfide	4.0E+00	3.7E+05	--	1E-05	--
24509 PANAMA AVE	Naphthalene	3.7E+00	1.6E+03	3.6E+01	2E-03	1E-07
24509 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24509 RAVENNA AVE	Carbon Disulfide	5.1E+01	3.7E+05	--	1E-04	--
24509 RAVENNA AVE	Chloroform	2.0E+01	5.1E+04	2.3E+02	4E-04	9E-08
24509 RAVENNA AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24509 RAVENNA AVE	Naphthalene	5.1E+00	1.6E+03	3.6E+01	3E-03	1E-07
24509 RAVENNA AVE	Tetrachloroethene	1.3E+01	2.1E+04	2.1E+02	6E-04	6E-08
24509 RAVENNA AVE	Toluene	5.2E+01	2.6E+06	--	2E-05	--
24512 MARBELLA AVE	Chloroform	2.3E+00	5.1E+04	2.3E+02	5E-05	1E-08
24512 MARBELLA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24512 MARBELLA AVE	Methylene Chloride	6.2E+00	3.1E+05	1.2E+03	2E-05	5E-09
24512 MARBELLA AVE	Naphthalene	4.5E+00	1.6E+03	3.6E+01	3E-03	1E-07
24512 MARBELLA AVE	Toluene	2.0E+01	2.6E+06	--	8E-06	--
24512 NEPTUNE AVE	Ethanol	5.6E+01	2.1E+06	--	3E-05	--
24512 NEPTUNE AVE	Isopropanol	1.2E+01	3.7E+06	--	3E-06	--
24512 NEPTUNE AVE	Naphthalene	4.4E+00	1.6E+03	3.6E+01	3E-03	1E-07
24512 NEPTUNE AVE	Toluene	8.4E+00	2.6E+06	--	3E-06	--
24512 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	4.0E+01	2.6E+06	--	2E-05	--
24512 PANAMA AVE	2-Hexanone	3.3E+00	1.6E+04	--	2E-04	--
24512 PANAMA AVE	Chloroform	1.9E+01	5.1E+04	2.3E+02	4E-04	8E-08
24512 PANAMA AVE	Ethanol	1.1E+02	2.1E+06	--	5E-05	--
24512 PANAMA AVE	Isopropanol	8.1E+00	3.7E+06	--	2E-06	--
24512 PANAMA AVE	Naphthalene	3.0E+00	1.6E+03	3.6E+01	2E-03	8E-08
24512 PANAMA AVE	p/m-Xylene	6.6E+00	5.2E+04	--	1E-04	--
24512 PANAMA AVE	Toluene	5.5E+00	2.6E+06	--	2E-06	--
24512 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	2.1E+01	2.6E+06	--	8E-06	--
24512 RAVENNA AVE	Ethanol	5.1E+01	2.1E+06	--	2E-05	--
24512 RAVENNA AVE	Isopropanol	1.2E+01	3.7E+06	--	3E-06	--
24512 RAVENNA AVE	Naphthalene	2.7E+00	1.6E+03	3.6E+01	2E-03	8E-08
24513 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	9.9E+00	2.6E+06	--	4E-06	--
24513 NEPTUNE AVE	Carbon Disulfide	5.6E+00	3.7E+05	--	2E-05	--
24513 NEPTUNE AVE	Ethanol	1.0E+01	2.1E+06	--	5E-06	--
24513 NEPTUNE AVE	Naphthalene	1.0E+01	1.6E+03	3.6E+01	6E-03	3E-07
24513 NEPTUNE AVE	Toluene	5.9E+00	2.6E+06	--	2E-06	--
24513 PANAMA AVE	1,2,4-Trimethylbenzene	1.0E+01	3.7E+03	--	3E-03	--
24513 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.5E+00	2.6E+06	--	3E-06	--
24513 PANAMA AVE	4-Ethyltoluene	7.7E+00	5.2E+04	--	2E-04	--
24513 PANAMA AVE	Ethanol	9.7E+00	2.1E+06	--	5E-06	--
24513 PANAMA AVE	Naphthalene	7.0E+00	1.6E+03	3.6E+01	5E-03	2E-07
24513 PANAMA AVE	o-Xylene	6.8E+00	5.2E+04	--	1E-04	--
24513 PANAMA AVE	p/m-Xylene	1.4E+01	5.2E+04	--	3E-04	--
24513 PANAMA AVE	Toluene	5.0E+00	2.6E+06	--	2E-06	--
24513 RAVENNA AVE	1,2,4-Trimethylbenzene	9.7E+00	3.7E+03	--	3E-03	--
24513 RAVENNA AVE	1,3-Butadiene	2.2E+00	1.0E+03	7.2E+00	2E-03	3E-07
24513 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	2.6E+06	--	8E-06	--
24513 RAVENNA AVE	Benzene	5.7E+01	1.6E+04	4.2E+01	4E-03	1E-06
24513 RAVENNA AVE	Cumene (Isopropylbenzene)	6.2E+01	2.1E+05	--	3E-04	--
24513 RAVENNA AVE	Cyclohexane	2.8E+01	3.1E+06	--	9E-06	--
24513 RAVENNA AVE	Ethanol	1.1E+02	2.1E+06	--	5E-05	--
24513 RAVENNA AVE	Ethylbenzene	1.1E+01	5.2E+05	4.9E+02	2E-05	2E-08
24513 RAVENNA AVE	Heptane	7.5E+00	3.7E+05	--	2E-05	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24513 RAVENNA AVE	Hexane	8.3E+00	3.7E+05	--	2E-05	--
24513 RAVENNA AVE	Isopropanol	2.3E+01	3.7E+06	--	6E-06	--
24513 RAVENNA AVE	Naphthalene	3.0E+00	1.6E+03	3.6E+01	2E-03	8E-08
24513 RAVENNA AVE	p/m-Xylene	1.8E+01	5.2E+04	--	4E-04	--
24513 RAVENNA AVE	Toluene	1.1E+01	2.6E+06	--	4E-06	--
24516 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.4E+01	2.6E+06	--	5E-06	--
24516 MARBELLA AVE	Benzene	9.2E+00	1.6E+04	4.2E+01	6E-04	2E-07
24516 MARBELLA AVE	Carbon Disulfide	5.0E+00	3.7E+05	--	1E-05	--
24516 MARBELLA AVE	Ethanol	8.7E+01	2.1E+06	--	4E-05	--
24516 MARBELLA AVE	Heptane	6.8E+00	3.7E+05	--	2E-05	--
24516 MARBELLA AVE	Naphthalene	1.4E+01	1.6E+03	3.6E+01	9E-03	4E-07
24516 MARBELLA AVE	Toluene	1.0E+01	2.6E+06	--	4E-06	--
24517 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	3.0E+01	2.6E+06	--	1E-05	--
24517 MARBELLA AVE	2-Hexanone	4.2E+01	1.6E+04	--	3E-03	--
24517 MARBELLA AVE	Benzene	6.4E+00	1.6E+04	4.2E+01	4E-04	2E-07
24517 MARBELLA AVE	Carbon Disulfide	4.2E+01	3.7E+05	--	1E-04	--
24517 MARBELLA AVE	Ethanol	6.6E+01	2.1E+06	--	3E-05	--
24517 MARBELLA AVE	Ethylbenzene	4.9E+00	5.2E+05	4.9E+02	9E-06	1E-08
24517 MARBELLA AVE	Naphthalene	4.8E+00	1.6E+03	3.6E+01	3E-03	1E-07
24517 MARBELLA AVE	o-Xylene	6.5E+00	5.2E+04	--	1E-04	--
24517 MARBELLA AVE	p/m-Xylene	1.6E+01	5.2E+04	--	3E-04	--
24517 MARBELLA AVE	Tetrachloroethene	6.6E+01	2.1E+04	2.1E+02	3E-03	3E-07
24517 MARBELLA AVE	Tetrahydrofuran	8.3E+00	1.0E+06	--	8E-06	--
24517 MARBELLA AVE	Toluene	4.5E+01	2.6E+06	--	2E-05	--
24518 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	2.6E+06	--	4E-06	--
24518 NEPTUNE AVE	Benzene	1.8E+01	1.6E+04	4.2E+01	1E-03	4E-07
24518 NEPTUNE AVE	Chloroform	9.7E+02	5.1E+04	2.3E+02	2E-02	4E-06
24518 NEPTUNE AVE	Cumene (Isopropylbenzene)	6.0E+00	2.1E+05	--	3E-05	--
24518 NEPTUNE AVE	Ethanol	1.5E+01	2.1E+06	--	7E-06	--
24518 NEPTUNE AVE	Naphthalene	4.0E+00	1.6E+03	3.6E+01	3E-03	1E-07
24518 NEPTUNE AVE	Tetrachloroethene	9.3E+00	2.1E+04	2.1E+02	5E-04	5E-08
24518 NEPTUNE AVE	Tetrahydrofuran	1.2E+01	1.0E+06	--	1E-05	--
24518 NEPTUNE AVE	Toluene	5.2E+00	2.6E+06	--	2E-06	--
24518 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	4.1E+00	2.6E+06	--	2E-06	--
24518 PANAMA AVE	Bromomethane	4.7E+00	2.6E+03	--	2E-03	--
24518 PANAMA AVE	Carbon Disulfide	3.2E+01	3.7E+05	--	9E-05	--
24518 PANAMA AVE	Heptane	5.1E+00	3.7E+05	--	1E-05	--
24518 PANAMA AVE	Hexane	6.0E+00	3.7E+05	--	2E-05	--
24518 PANAMA AVE	Naphthalene	4.1E+00	1.6E+03	3.6E+01	3E-03	1E-07
24518 PANAMA AVE	p/m-Xylene	8.4E+00	5.2E+04	--	2E-04	--
24518 PANAMA AVE	Toluene	6.8E+00	2.6E+06	--	3E-06	--
24518 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24518 RAVENNA AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24518 RAVENNA AVE	Isopropanol	1.4E+01	3.7E+06	--	4E-06	--
24518 RAVENNA AVE	Naphthalene	7.9E+00	1.6E+03	3.6E+01	5E-03	2E-07
24518 RAVENNA AVE	Tetrachloroethene	3.7E+01	2.1E+04	2.1E+02	2E-03	2E-07
24518 RAVENNA AVE	Toluene	1.0E+01	2.6E+06	--	4E-06	--
24519 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	2.6E+06	--	6E-06	--
24519 NEPTUNE AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24519 NEPTUNE AVE	Methylene Chloride	4.3E+00	3.1E+05	1.2E+03	1E-05	4E-09
24519 PANAMA AVE	1,4-Dioxane	1.6E+00	1.6E+06	1.6E+02	1E-06	1E-08
24519 PANAMA AVE	Chloroform	9.3E+00	5.1E+04	2.3E+02	2E-04	4E-08
24519 PANAMA AVE	Isopropanol	4.0E+00	3.7E+06	--	1E-06	--
24519 PANAMA AVE	Naphthalene	4.6E+00	1.6E+03	3.6E+01	3E-03	1E-07
24519 PANAMA AVE	Toluene	1.8E+01	2.6E+06	--	7E-06	--
24522 MARBELLA AVE	1,4-Dioxane	2.7E+01	1.6E+06	1.6E+02	2E-05	2E-07
24522 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.4E+01	2.6E+06	--	5E-06	--
24522 MARBELLA AVE	Benzene	1.3E+01	1.6E+04	4.2E+01	8E-04	3E-07
24522 MARBELLA AVE	Bromomethane	6.5E+00	2.6E+03	--	3E-03	--
24522 MARBELLA AVE	Ethanol	1.8E+01	2.1E+06	--	9E-06	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24522 MARBELLA AVE	Ethylbenzene	1.1E+01	5.2E+05	4.9E+02	2E-05	2E-08
24522 MARBELLA AVE	Isopropanol	1.4E+01	3.7E+06	--	4E-06	--
24522 MARBELLA AVE	Naphthalene	5.7E+00	1.6E+03	3.6E+01	4E-03	2E-07
24522 MARBELLA AVE	p/m-Xylene	1.9E+01	5.2E+04	--	4E-04	--
24522 MARBELLA AVE	Toluene	2.3E+01	2.6E+06	--	9E-06	--
24522 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	6.8E+00	2.6E+06	--	3E-06	--
24522 NEPTUNE AVE	4-Ethyltoluene	7.2E+00	5.2E+04	--	1E-04	--
24522 NEPTUNE AVE	Bromomethane	1.0E+01	2.6E+03	--	4E-03	--
24522 NEPTUNE AVE	Carbon Disulfide	1.1E+01	3.7E+05	--	3E-05	--
24522 NEPTUNE AVE	Ethanol	1.5E+01	2.1E+06	--	7E-06	--
24522 NEPTUNE AVE	Isopropanol	2.1E+01	3.7E+06	--	6E-06	--
24522 NEPTUNE AVE	Naphthalene	2.3E+00	1.6E+03	3.6E+01	2E-03	6E-08
24522 NEPTUNE AVE	Tetrahydrofuran	3.9E+00	1.0E+06	--	4E-06	--
24522 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	2.6E+06	--	6E-06	--
24522 PANAMA AVE	Chloroform	3.4E+01	5.1E+04	2.3E+02	7E-04	2E-07
24522 PANAMA AVE	Ethanol	1.0E+01	2.1E+06	--	5E-06	--
24522 PANAMA AVE	Hexane	6.0E+00	3.7E+05	--	2E-05	--
24522 PANAMA AVE	Isopropanol	1.1E+02	3.7E+06	--	3E-05	--
24522 PANAMA AVE	Naphthalene	1.6E+00	1.6E+03	3.6E+01	1E-03	5E-08
24522 PANAMA AVE	Toluene	1.2E+01	2.6E+06	--	5E-06	--
24522 RAVENNA AVE	Bromodichloromethane	2.9E+01	3.7E+04	3.3E+01	8E-04	9E-07
24522 RAVENNA AVE	Chloroform	2.1E+01	5.1E+04	2.3E+02	4E-04	9E-08
24522 RAVENNA AVE	Heptane	5.1E+00	3.7E+05	--	1E-05	--
24522 RAVENNA AVE	Hexane	5.5E+00	3.7E+05	--	2E-05	--
24522 RAVENNA AVE	Isopropanol	3.1E+01	3.7E+06	--	9E-06	--
24522 RAVENNA AVE	Naphthalene	1.3E+00	1.6E+03	3.6E+01	8E-04	4E-08
24523 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	8.3E+00	2.6E+06	--	3E-06	--
24523 MARBELLA AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24523 MARBELLA AVE	Naphthalene	8.5E+00	1.6E+03	3.6E+01	5E-03	2E-07
24523 MARBELLA AVE	p/m-Xylene	5.4E+00	5.2E+04	--	1E-04	--
24523 MARBELLA AVE	Tetrachloroethene	1.9E+02	2.1E+04	2.1E+02	9E-03	9E-07
24523 MARBELLA AVE	Toluene	7.9E+00	2.6E+06	--	3E-06	--
24523 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.0E+01	2.6E+06	--	8E-06	--
24523 NEPTUNE AVE	2-Hexanone	2.2E+00	1.6E+04	--	1E-04	--
24523 NEPTUNE AVE	Ethanol	1.4E+01	2.1E+06	--	7E-06	--
24523 NEPTUNE AVE	Hexane	4.1E+00	3.7E+05	--	1E-05	--
24523 NEPTUNE AVE	Naphthalene	3.7E+00	1.6E+03	3.6E+01	2E-03	1E-07
24523 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	2.0E+01	2.6E+06	--	8E-06	--
24523 RAVENNA AVE	2-Hexanone	1.0E+00	1.6E+04	--	6E-05	--
24523 RAVENNA AVE	Benzene	2.6E+01	1.6E+04	4.2E+01	2E-03	6E-07
24523 RAVENNA AVE	Bromodichloromethane	1.2E+01	3.7E+04	3.3E+01	3E-04	4E-07
24523 RAVENNA AVE	Chloroform	6.8E+02	5.1E+04	2.3E+02	1E-02	3E-06
24523 RAVENNA AVE	Cumene (Isopropylbenzene)	1.6E+01	2.1E+05	--	8E-05	--
24523 RAVENNA AVE	Cyclohexane	3.2E+01	3.1E+06	--	1E-05	--
24523 RAVENNA AVE	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
24523 RAVENNA AVE	Isopropanol	9.5E-01	3.7E+06	--	3E-07	--
24523 RAVENNA AVE	Methylene Chloride	4.2E+00	3.1E+05	1.2E+03	1E-05	4E-09
24523 RAVENNA AVE	Naphthalene	8.9E+00	1.6E+03	3.6E+01	6E-03	3E-07
24523 RAVENNA AVE	Trichloroethene	2.6E+01	1.0E+03	2.2E+02	3E-02	1E-07
24526 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.2E+00	2.6E+06	--	2E-06	--
24526 MARBELLA AVE	Benzene	6.5E+00	1.6E+04	4.2E+01	4E-04	2E-07
24526 MARBELLA AVE	Ethanol	1.9E+01	2.1E+06	--	9E-06	--
24526 MARBELLA AVE	Naphthalene	2.7E+00	1.6E+03	3.6E+01	2E-03	8E-08
24526 MARBELLA AVE	Toluene	5.2E+00	2.6E+06	--	2E-06	--
24528 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.5E+00	2.6E+06	--	2E-06	--
24528 NEPTUNE AVE	Chloroform	6.0E+00	5.1E+04	2.3E+02	1E-04	3E-08
24528 NEPTUNE AVE	Ethanol	2.7E+01	2.1E+06	--	1E-05	--
24528 NEPTUNE AVE	Heptane	4.9E+00	3.7E+05	--	1E-05	--
24528 NEPTUNE AVE	Hexane	4.0E+00	3.7E+05	--	1E-05	--
24528 NEPTUNE AVE	Naphthalene	1.0E+01	1.6E+03	3.6E+01	6E-03	3E-07

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24528 NEPTUNE AVE	p/m-Xylene	4.7E+00	5.2E+04	--	9E-05	--
24528 NEPTUNE AVE	Tetrachloroethene	1.1E+01	2.1E+04	2.1E+02	5E-04	5E-08
24528 NEPTUNE AVE	Tetrahydrofuran	2.1E+01	1.0E+06	--	2E-05	--
24528 PANAMA AVE	Naphthalene	4.0E+00	1.6E+03	3.6E+01	3E-03	1E-07
24529 NEPTUNE AVE	1,2,4-Trimethylbenzene	5.2E+00	3.7E+03	--	1E-03	--
24529 NEPTUNE AVE	1,4-Dioxane	2.2E+01	1.6E+06	1.6E+02	1E-05	1E-07
24529 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	3.8E+01	2.6E+06	--	2E-05	--
24529 NEPTUNE AVE	Bromodichloromethane	1.4E+01	3.7E+04	3.3E+01	4E-04	4E-07
24529 NEPTUNE AVE	Chloroform	5.7E+01	5.1E+04	2.3E+02	1E-03	3E-07
24529 NEPTUNE AVE	Ethanol	1.8E+01	2.1E+06	--	9E-06	--
24529 NEPTUNE AVE	Naphthalene	7.7E+00	1.6E+03	3.6E+01	5E-03	2E-07
24529 NEPTUNE AVE	p/m-Xylene	3.7E+00	5.2E+04	--	7E-05	--
24529 NEPTUNE AVE	Tetrachloroethene	8.2E+01	2.1E+04	2.1E+02	4E-03	4E-07
24529 NEPTUNE AVE	Tetrahydrofuran	1.6E+01	1.0E+06	--	2E-05	--
24529 PANAMA AVE	1,4-Dioxane	1.9E+00	1.6E+06	1.6E+02	1E-06	1E-08
24529 PANAMA AVE	Naphthalene	1.5E+00	1.6E+03	3.6E+01	1E-03	4E-08
24529 PANAMA AVE	Toluene	5.1E+00	2.6E+06	--	2E-06	--
24529 RAVENNA AVE	Chloroform	1.7E+01	5.1E+04	2.3E+02	3E-04	7E-08
24529 RAVENNA AVE	Isopropanol	5.7E+00	3.7E+06	--	2E-06	--
24529 RAVENNA AVE	Naphthalene	4.2E+00	1.6E+03	3.6E+01	3E-03	1E-07
24529 RAVENNA AVE	p/m-Xylene	5.0E+00	5.2E+04	--	1E-04	--
24529 RAVENNA AVE	Tetrachloroethene	9.5E+00	2.1E+04	2.1E+02	5E-04	5E-08
24532 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	3.7E+00	2.6E+06	--	1E-06	--
24532 MARBELLA AVE	2-Hexanone	8.9E-01	1.6E+04	--	6E-05	--
24532 MARBELLA AVE	Benzene	1.2E+01	1.6E+04	4.2E+01	8E-04	3E-07
24532 MARBELLA AVE	Bromodichloromethane	9.2E-01	3.7E+04	3.3E+01	3E-05	3E-08
24532 MARBELLA AVE	Carbon Disulfide	4.9E+00	3.7E+05	--	1E-05	--
24532 MARBELLA AVE	Chloroform	6.5E+00	5.1E+04	2.3E+02	1E-04	3E-08
24532 MARBELLA AVE	Cumene (Isopropylbenzene)	1.9E+00	2.1E+05	--	9E-06	--
24532 MARBELLA AVE	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
24532 MARBELLA AVE	Isopropanol	8.7E+00	3.7E+06	--	2E-06	--
24532 MARBELLA AVE	Naphthalene	1.2E+00	1.6E+03	3.6E+01	8E-04	3E-08
24532 MARBELLA AVE	Tetrachloroethene	3.5E+00	2.1E+04	2.1E+02	2E-04	2E-08
24532 MARBELLA AVE	Toluene	1.9E+00	2.6E+06	--	7E-07	--
24532 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.2E+01	3.7E+03	--	3E-03	--
24532 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+01	2.6E+06	--	7E-06	--
24532 NEPTUNE AVE	4-Ethyltoluene	1.6E+01	5.2E+04	--	3E-04	--
24532 NEPTUNE AVE	Benzene	2.8E+01	1.6E+04	4.2E+01	2E-03	7E-07
24532 NEPTUNE AVE	Cyclohexane	4.2E+01	3.1E+06	--	1E-05	--
24532 NEPTUNE AVE	Ethanol	1.3E+02	2.1E+06	--	6E-05	--
24532 NEPTUNE AVE	Ethylbenzene	1.4E+01	5.2E+05	4.9E+02	3E-05	3E-08
24532 NEPTUNE AVE	Heptane	1.1E+01	3.7E+05	--	3E-05	--
24532 NEPTUNE AVE	Hexane	6.5E+00	3.7E+05	--	2E-05	--
24532 NEPTUNE AVE	Isopropanol	8.5E+01	3.7E+06	--	2E-05	--
24532 NEPTUNE AVE	Methyl-tert-Butyl Ether	1.0E+01	1.6E+06	4.7E+03	6E-06	2E-09
24532 NEPTUNE AVE	Naphthalene	4.6E+00	1.6E+03	3.6E+01	3E-03	1E-07
24532 NEPTUNE AVE	o-Xylene	1.8E+01	5.2E+04	--	4E-04	--
24532 NEPTUNE AVE	p/m-Xylene	5.3E+01	5.2E+04	--	1E-03	--
24532 NEPTUNE AVE	Toluene	1.1E+02	2.6E+06	--	4E-05	--
24532 PANAMA AVE	Chloroform	6.1E+01	5.1E+04	2.3E+02	1E-03	3E-07
24532 PANAMA AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24532 PANAMA AVE	Isopropanol	6.3E+00	3.7E+06	--	2E-06	--
24532 PANAMA AVE	Naphthalene	5.7E+00	1.6E+03	3.6E+01	4E-03	2E-07
24532 RAVENNA AVE	1,4-Dichlorobenzene	1.6E+01	4.2E+05	1.1E+02	4E-05	1E-07
24532 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	7.3E+00	2.6E+06	--	3E-06	--
24532 RAVENNA AVE	Carbon Disulfide	4.3E+00	3.7E+05	--	1E-05	--
24532 RAVENNA AVE	Ethanol	2.1E+01	2.1E+06	--	1E-05	--
24532 RAVENNA AVE	Isopropanol	1.3E+01	3.7E+06	--	4E-06	--
24532 RAVENNA AVE	Naphthalene	2.6E+00	1.6E+03	3.6E+01	2E-03	7E-08
24533 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	2.5E+01	2.6E+06	--	1E-05	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24533 MARBELLA AVE	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
24533 MARBELLA AVE	Naphthalene	9.7E-01	1.6E+03	3.6E+01	6E-04	3E-08
24533 MARBELLA AVE	Tetrachloroethene	2.3E+01	2.1E+04	2.1E+02	1E-03	1E-07
24533 MARBELLA AVE	Tetrahydrofuran	4.5E+00	1.0E+06	--	4E-06	--
24533 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+01	2.6E+06	--	7E-06	--
24533 NEPTUNE AVE	Chloroform	8.9E+01	5.1E+04	2.3E+02	2E-03	4E-07
24533 NEPTUNE AVE	Naphthalene	1.4E+00	1.6E+03	3.6E+01	9E-04	4E-08
24533 PANAMA AVE	Naphthalene	2.9E+00	1.6E+03	3.6E+01	2E-03	8E-08
24533 RAVENNA AVE	Ethanol	1.5E+01	2.1E+06	--	7E-06	--
24533 RAVENNA AVE	Heptane	9.4E+00	3.7E+05	--	3E-05	--
24533 RAVENNA AVE	Hexane	1.2E+01	3.7E+05	--	3E-05	--
24533 RAVENNA AVE	Isopropanol	1.8E+01	3.7E+06	--	5E-06	--
24533 RAVENNA AVE	Naphthalene	8.2E+00	1.6E+03	3.6E+01	5E-03	2E-07
24533 RAVENNA AVE	Tetrahydrofuran	6.3E+00	1.0E+06	--	6E-06	--
24602 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.1E+00	2.6E+06	--	2E-06	--
24602 MARBELLA AVE	Benzene	3.6E+00	1.6E+04	4.2E+01	2E-04	9E-08
24602 MARBELLA AVE	Chloroform	1.4E+01	5.1E+04	2.3E+02	3E-04	6E-08
24602 MARBELLA AVE	Cyclohexane	4.2E+00	3.1E+06	--	1E-06	--
24602 MARBELLA AVE	Isopropanol	9.6E+00	3.7E+06	--	3E-06	--
24602 MARBELLA AVE	Naphthalene	1.5E+00	1.6E+03	3.6E+01	1E-03	4E-08
24602 MARBELLA AVE	Toluene	3.2E+01	2.6E+06	--	1E-05	--
24602 NEPTUNE AVE	1,4-Dioxane	1.2E+02	1.6E+06	1.6E+02	8E-05	8E-07
24602 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	9.5E+00	2.6E+06	--	4E-06	--
24602 NEPTUNE AVE	Benzene	9.2E+00	1.6E+04	4.2E+01	6E-04	2E-07
24602 NEPTUNE AVE	Ethanol	1.0E+01	2.1E+06	--	5E-06	--
24602 NEPTUNE AVE	Naphthalene	1.6E+00	1.6E+03	3.6E+01	1E-03	5E-08
24602 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.7E+01	2.6E+06	--	7E-06	--
24602 PANAMA AVE	Ethanol	2.3E+01	2.1E+06	--	1E-05	--
24602 PANAMA AVE	Naphthalene	5.6E+00	1.6E+03	3.6E+01	4E-03	2E-07
24602 RAVENNA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24602 RAVENNA AVE	Hexane	5.5E+00	3.7E+05	--	2E-05	--
24602 RAVENNA AVE	Naphthalene	5.0E+00	1.6E+03	3.6E+01	3E-03	1E-07
24602 RAVENNA AVE	Tetrachloroethene	1.4E+01	2.1E+04	2.1E+02	7E-04	7E-08
24603 MARBELLA AVE	1,2,4-Trimethylbenzene	2.2E+03	3.7E+03	--	6E-01	--
24603 MARBELLA AVE	1,3,5-Trimethylbenzene	1.0E+03	3.7E+03	--	3E-01	--
24603 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	6.4E+01	2.6E+06	--	3E-05	--
24603 MARBELLA AVE	4-Ethyltoluene	1.3E+03	5.2E+04	--	3E-02	--
24603 MARBELLA AVE	Benzene	4.5E+03	1.6E+04	4.2E+01	3E-01	1E-04
24603 MARBELLA AVE	Bromodichloromethane	1.6E+01	3.7E+04	3.3E+01	4E-04	5E-07
24603 MARBELLA AVE	Chloroform	1.4E+02	5.1E+04	2.3E+02	3E-03	6E-07
24603 MARBELLA AVE	Cumene (Isopropylbenzene)	4.0E+01	2.1E+05	--	2E-04	--
24603 MARBELLA AVE	Cyclohexane	6.4E+01	3.1E+06	--	2E-05	--
24603 MARBELLA AVE	Ethanol	2.5E+01	2.1E+06	--	1E-05	--
24603 MARBELLA AVE	Ethylbenzene	1.1E+03	5.2E+05	4.9E+02	2E-03	2E-06
24603 MARBELLA AVE	Heptane	4.0E+02	3.7E+05	--	1E-03	--
24603 MARBELLA AVE	Hexane	5.2E+02	3.7E+05	--	1E-03	--
24603 MARBELLA AVE	Naphthalene	1.3E+01	1.6E+03	3.6E+01	8E-03	4E-07
24603 MARBELLA AVE	o-Xylene	4.2E+01	5.2E+04	--	8E-04	--
24603 MARBELLA AVE	p/m-Xylene	5.2E+03	5.2E+04	--	1E-01	--
24603 MARBELLA AVE	Propylbenzene	2.8E+02	5.2E+05	--	5E-04	--
24603 MARBELLA AVE	Tetrachloroethene	1.4E+01	2.1E+04	2.1E+02	7E-04	7E-08
24603 MARBELLA AVE	Toluene	7.0E+02	2.6E+06	--	3E-04	--
24603 NEPTUNE AVE	Naphthalene	2.2E+00	1.6E+03	3.6E+01	1E-03	6E-08
24603 NEPTUNE AVE	Toluene	6.1E+00	2.6E+06	--	2E-06	--
24603 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.5E+00	2.6E+06	--	3E-06	--
24603 PANAMA AVE	Carbon Disulfide	4.8E+00	3.7E+05	--	1E-05	--
24603 PANAMA AVE	Chloroform	1.7E+01	5.1E+04	2.3E+02	3E-04	7E-08
24603 PANAMA AVE	Naphthalene	3.9E+00	1.6E+03	3.6E+01	3E-03	1E-07
24603 PANAMA AVE	Tetrahydrofuran	1.5E+01	1.0E+06	--	1E-05	--
24603 PANAMA AVE	Toluene	6.8E+00	2.6E+06	--	3E-06	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24603 RAVENNA AVE	1,2,4-Trimethylbenzene	1.0E+01	3.7E+03	--	3E-03	--
24603 RAVENNA AVE	2,2,4-Trimethylpentane	2.1E+00	5.2E+05	--	4E-06	--
24603 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	4.0E+01	2.6E+06	--	2E-05	--
24603 RAVENNA AVE	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
24603 RAVENNA AVE	Isopropanol	1.4E+01	3.7E+06	--	4E-06	--
24603 RAVENNA AVE	Naphthalene	4.8E+00	1.6E+03	3.6E+01	3E-03	1E-07
24603 RAVENNA AVE	p/m-Xylene	9.9E+00	5.2E+04	--	2E-04	--
24603 RAVENNA AVE	Toluene	8.7E+01	2.6E+06	--	3E-05	--
24606 MARBELLA AVE	1,2,4-Trimethylbenzene	4.0E+00	3.7E+03	--	1E-03	--
24606 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+00	2.6E+06	--	3E-06	--
24606 MARBELLA AVE	Carbon Disulfide	7.0E+00	3.7E+05	--	2E-05	--
24606 MARBELLA AVE	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
24606 MARBELLA AVE	Naphthalene	5.2E+00	1.6E+03	3.6E+01	3E-03	2E-07
24606 MARBELLA AVE	p/m-Xylene	3.9E+00	5.2E+04	--	8E-05	--
24606 MARBELLA AVE	Tetrachloroethene	8.6E+00	2.1E+04	2.1E+02	4E-04	4E-08
24606 MARBELLA AVE	Toluene	1.4E+01	2.6E+06	--	5E-06	--
24607 MARBELLA AVE	1,4-Dioxane	5.4E+01	1.6E+06	1.6E+02	4E-05	3E-07
24607 MARBELLA AVE	Chloroform	1.5E+01	5.1E+04	2.3E+02	3E-04	7E-08
24607 MARBELLA AVE	Isopropanol	2.3E+01	3.7E+06	--	6E-06	--
24607 MARBELLA AVE	Naphthalene	2.3E+00	1.6E+03	3.6E+01	2E-03	6E-08
24608 NEPTUNE AVE	2,2,4-Trimethylpentane	1.3E+01	5.2E+05	--	3E-05	--
24608 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	8.6E+00	2.6E+06	--	3E-06	--
24608 NEPTUNE AVE	Benzene	5.3E+01	1.6E+04	4.2E+01	3E-03	1E-06
24608 NEPTUNE AVE	Carbon Disulfide	6.0E+00	3.7E+05	--	2E-05	--
24608 NEPTUNE AVE	Chloroform	5.2E+01	5.1E+04	2.3E+02	1E-03	2E-07
24608 NEPTUNE AVE	Cyclohexane	4.1E+00	3.1E+06	--	1E-06	--
24608 NEPTUNE AVE	Ethanol	1.7E+02	2.1E+06	--	8E-05	--
24608 NEPTUNE AVE	Heptane	1.1E+01	3.7E+05	--	3E-05	--
24608 NEPTUNE AVE	Hexane	1.5E+01	3.7E+05	--	4E-05	--
24608 NEPTUNE AVE	Isopropanol	3.7E+01	3.7E+06	--	1E-05	--
24608 NEPTUNE AVE	Methylene Chloride	7.5E+00	3.1E+05	1.2E+03	2E-05	6E-09
24608 NEPTUNE AVE	Naphthalene	3.6E+00	1.6E+03	3.6E+01	2E-03	1E-07
24608 NEPTUNE AVE	Toluene	3.1E+01	2.6E+06	--	1E-05	--
24608 PANAMA AVE	1,2,4-Trimethylbenzene	7.5E+00	3.7E+03	--	2E-03	--
24608 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.5E+00	2.6E+06	--	3E-06	--
24608 PANAMA AVE	Benzene	9.6E+00	1.6E+04	4.2E+01	6E-04	2E-07
24608 PANAMA AVE	Bromodichloromethane	1.2E+01	3.7E+04	3.3E+01	3E-04	4E-07
24608 PANAMA AVE	Chloroform	1.1E+03	5.1E+04	2.3E+02	2E-02	5E-06
24608 PANAMA AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24608 PANAMA AVE	Isopropanol	1.4E+01	3.7E+06	--	4E-06	--
24608 PANAMA AVE	Naphthalene	1.6E+01	1.6E+03	3.6E+01	1E-02	5E-07
24608 PANAMA AVE	Tetrachloroethene	9.8E+01	2.1E+04	2.1E+02	5E-03	5E-07
24608 PANAMA AVE	Toluene	1.4E+01	2.6E+06	--	5E-06	--
24608 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	8.2E+00	2.6E+06	--	3E-06	--
24608 RAVENNA AVE	Benzene	2.1E+01	1.6E+04	4.2E+01	1E-03	5E-07
24608 RAVENNA AVE	Carbon Disulfide	7.2E+01	3.7E+05	--	2E-04	--
24608 RAVENNA AVE	Chloroform	1.3E+01	5.1E+04	2.3E+02	3E-04	6E-08
24608 RAVENNA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24608 RAVENNA AVE	Naphthalene	2.1E+00	1.6E+03	3.6E+01	1E-03	6E-08
24608 RAVENNA AVE	Toluene	3.3E+00	2.6E+06	--	1E-06	--
24608 RAVENNA AVE	trans-1,3-Dichloropropene	8.4E+00	1.0E+04	7.6E+01	8E-04	1E-07
24609 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	5.1E+00	2.6E+06	--	2E-06	--
24609 NEPTUNE AVE	Benzene	5.2E+00	1.6E+04	4.2E+01	3E-04	1E-07
24609 NEPTUNE AVE	Carbon Disulfide	6.7E+00	3.7E+05	--	2E-05	--
24609 NEPTUNE AVE	Carbon Tetrachloride	2.1E+01	5.2E+04	2.9E+01	4E-04	7E-07
24609 NEPTUNE AVE	Chloroform	6.4E+00	5.1E+04	2.3E+02	1E-04	3E-08
24609 NEPTUNE AVE	Ethanol	7.7E+01	2.1E+06	--	4E-05	--
24609 NEPTUNE AVE	Isopropanol	3.3E+01	3.7E+06	--	9E-06	--
24609 NEPTUNE AVE	Naphthalene	2.1E+00	1.6E+03	3.6E+01	1E-03	6E-08
24609 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	8.8E+00	2.6E+06	--	3E-06	--
24609 PANAMA AVE	Benzene	5.7E+00	1.6E+04	4.2E+01	4E-04	1E-07

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24609 PANAMA AVE	Bromomethane	1.0E+01	2.6E+03	--	4E-03	--
24609 PANAMA AVE	Carbon Disulfide	6.0E+00	3.7E+05	--	2E-05	--
24609 PANAMA AVE	Carbon Tetrachloride	9.9E+01	5.2E+04	2.9E+01	2E-03	3E-06
24609 PANAMA AVE	Chloroform	2.9E+01	5.1E+04	2.3E+02	6E-04	1E-07
24609 PANAMA AVE	Ethanol	5.4E+01	2.1E+06	--	3E-05	--
24609 PANAMA AVE	Isopropanol	1.3E+01	3.7E+06	--	4E-06	--
24609 PANAMA AVE	Naphthalene	3.0E+01	1.6E+03	3.6E+01	2E-02	8E-07
24609 PANAMA AVE	Tetrachloroethene	3.9E+01	2.1E+04	2.1E+02	2E-03	2E-07
24609 PANAMA AVE	Toluene	1.2E+01	2.6E+06	--	5E-06	--
24609 RAVENNA AVE	Carbon Disulfide	5.2E+00	3.7E+05	--	1E-05	--
24609 RAVENNA AVE	Ethanol	1.8E+01	2.1E+06	--	9E-06	--
24609 RAVENNA AVE	Isopropanol	1.4E+01	3.7E+06	--	4E-06	--
24609 RAVENNA AVE	Naphthalene	2.3E+00	1.6E+03	3.6E+01	2E-03	6E-08
24612 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24612 MARBELLA AVE	Bromodichloromethane	1.6E+01	3.7E+04	3.3E+01	4E-04	5E-07
24612 MARBELLA AVE	Chloroform	3.2E+01	5.1E+04	2.3E+02	6E-04	1E-07
24612 MARBELLA AVE	Ethanol	2.6E+01	2.1E+06	--	1E-05	--
24612 NEPTUNE AVE	2,2,4-Trimethylpentane	7.6E+00	5.2E+05	--	2E-05	--
24612 NEPTUNE AVE	Chloroform	6.4E+00	5.1E+04	2.3E+02	1E-04	3E-08
24612 NEPTUNE AVE	Hexane	5.7E+00	3.7E+05	--	2E-05	--
24612 NEPTUNE AVE	Isopropanol	2.1E+01	3.7E+06	--	6E-06	--
24612 NEPTUNE AVE	Methylene Chloride	4.5E+00	3.1E+05	1.2E+03	1E-05	4E-09
24612 NEPTUNE AVE	Naphthalene	2.0E+00	1.6E+03	3.6E+01	1E-03	6E-08
24612 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	2.6E+06	--	8E-06	--
24612 PANAMA AVE	Chloroform	1.0E+01	5.1E+04	2.3E+02	2E-04	4E-08
24612 PANAMA AVE	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
24612 PANAMA AVE	Hexane	6.7E+00	3.7E+05	--	2E-05	--
24612 PANAMA AVE	Naphthalene	2.0E+00	1.6E+03	3.6E+01	1E-03	6E-08
24612 PANAMA AVE	Toluene	2.6E+02	2.6E+06	--	1E-04	--
24612 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	4.9E+00	2.6E+06	--	2E-06	--
24612 RAVENNA AVE	Chloroform	8.6E+00	5.1E+04	2.3E+02	2E-04	4E-08
24612 RAVENNA AVE	Ethanol	8.9E+00	2.1E+06	--	4E-06	--
24612 RAVENNA AVE	Naphthalene	5.5E+00	1.6E+03	3.6E+01	4E-03	2E-07
24612 RAVENNA AVE	Toluene	5.3E+00	2.6E+06	--	2E-06	--
24613 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	9.8E+00	2.6E+06	--	4E-06	--
24613 MARBELLA AVE	2-Hexanone	2.5E+00	1.6E+04	--	2E-04	--
24613 MARBELLA AVE	Carbon Disulfide	1.0E+02	3.7E+05	--	3E-04	--
24613 MARBELLA AVE	Ethanol	2.8E+01	2.1E+06	--	1E-05	--
24613 MARBELLA AVE	Ethylbenzene	3.2E+01	5.2E+05	4.9E+02	6E-05	7E-08
24613 MARBELLA AVE	Heptane	5.0E+00	3.7E+05	--	1E-05	--
24613 MARBELLA AVE	Hexane	5.7E+00	3.7E+05	--	2E-05	--
24613 MARBELLA AVE	Methylene Chloride	4.0E+00	3.1E+05	1.2E+03	1E-05	3E-09
24613 MARBELLA AVE	Naphthalene	2.2E+01	1.6E+03	3.6E+01	1E-02	6E-07
24613 MARBELLA AVE	Propylbenzene	1.4E+01	5.2E+05	--	3E-05	--
24613 NEPTUNE AVE	1,4-Dioxane	7.9E+01	1.6E+06	1.6E+02	5E-05	5E-07
24613 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24613 NEPTUNE AVE	Benzene	4.7E+00	1.6E+04	4.2E+01	3E-04	1E-07
24613 NEPTUNE AVE	Carbon Disulfide	1.5E+02	3.7E+05	--	4E-04	--
24613 NEPTUNE AVE	Chloroform	1.1E+01	5.1E+04	2.3E+02	2E-04	5E-08
24613 NEPTUNE AVE	Naphthalene	1.9E+00	1.6E+03	3.6E+01	1E-03	5E-08
24613 PANAMA AVE	1,2-Dichloroethane	4.9E+00	3.7E+03	5.9E+01	1E-03	8E-08
24613 PANAMA AVE	1,4-Dioxane	4.7E+01	1.6E+06	1.6E+02	3E-05	3E-07
24613 PANAMA AVE	2,2,4-Trimethylpentane	5.6E+00	5.2E+05	--	1E-05	--
24613 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	2.6E+06	--	8E-06	--
24613 PANAMA AVE	Benzene	6.6E+00	1.6E+04	4.2E+01	4E-04	2E-07
24613 PANAMA AVE	Bromomethane	6.0E+00	2.6E+03	--	2E-03	--
24613 PANAMA AVE	Carbon Disulfide	2.3E+02	3.7E+05	--	6E-04	--
24613 PANAMA AVE	Chloroform	6.4E+00	5.1E+04	2.3E+02	1E-04	3E-08
24613 PANAMA AVE	Ethanol	6.5E+01	2.1E+06	--	3E-05	--
24613 PANAMA AVE	Heptane	1.6E+01	3.7E+05	--	4E-05	--
24613 PANAMA AVE	Hexane	1.4E+01	3.7E+05	--	4E-05	--

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Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24613 PANAMA AVE	Isopropanol	1.3E+01	3.7E+06	--	4E-06	--
24613 PANAMA AVE	Methylene Chloride	5.6E+01	3.1E+05	1.2E+03	2E-04	5E-08
24613 PANAMA AVE	Naphthalene	4.5E+00	1.6E+03	3.6E+01	3E-03	1E-07
24613 PANAMA AVE	Tetrachloroethene	1.9E+02	2.1E+04	2.1E+02	9E-03	9E-07
24613 PANAMA AVE	Tetrahydrofuran	1.1E+01	1.0E+06	--	1E-05	--
24613 RAVENNA AVE	1,2,4-Trimethylbenzene	1.3E+01	3.7E+03	--	4E-03	--
24613 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	2.6E+06	--	4E-06	--
24613 RAVENNA AVE	4-Ethyltoluene	1.0E+01	5.2E+04	--	2E-04	--
24613 RAVENNA AVE	Benzene	4.2E+00	1.6E+04	4.2E+01	3E-04	1E-07
24613 RAVENNA AVE	Carbon Disulfide	5.8E+00	3.7E+05	--	2E-05	--
24613 RAVENNA AVE	Chloroform	3.8E+00	5.1E+04	2.3E+02	7E-05	2E-08
24613 RAVENNA AVE	cis-1,2-Dichloroethene	2.1E+01	3.7E+03	--	6E-03	--
24613 RAVENNA AVE	Cumene (Isopropylbenzene)	3.0E+00	2.1E+05	--	1E-05	--
24613 RAVENNA AVE	Ethanol	2.4E+01	2.1E+06	--	1E-05	--
24613 RAVENNA AVE	Ethylbenzene	7.6E+00	5.2E+05	4.9E+02	2E-05	2E-08
24613 RAVENNA AVE	Heptane	1.0E+01	3.7E+05	--	3E-05	--
24613 RAVENNA AVE	Isopropanol	1.4E+01	3.7E+06	--	4E-06	--
24613 RAVENNA AVE	Naphthalene	2.8E+00	1.6E+03	3.6E+01	2E-03	8E-08
24613 RAVENNA AVE	o-Xylene	1.1E+01	5.2E+04	--	2E-04	--
24613 RAVENNA AVE	p/m-Xylene	2.7E+01	5.2E+04	--	5E-04	--
24613 RAVENNA AVE	Tetrachloroethene	4.5E+01	2.1E+04	2.1E+02	2E-03	2E-07
24613 RAVENNA AVE	Toluene	3.5E+01	2.6E+06	--	1E-05	--
24616 MARBELLA AVE	1,4-Dichlorobenzene	8.4E+00	4.2E+05	1.1E+02	2E-05	8E-08
24616 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	5.2E+01	2.6E+06	--	2E-05	--
24616 MARBELLA AVE	Bromodichloromethane	3.7E+02	3.7E+04	3.3E+01	1E-02	1E-05
24616 MARBELLA AVE	Carbon Disulfide	4.2E+00	3.7E+05	--	1E-05	--
24616 MARBELLA AVE	Chloroform	1.9E+02	5.1E+04	2.3E+02	4E-03	8E-07
24616 MARBELLA AVE	Dibromochloromethane	1.1E+02	3.7E+04	4.5E+01	3E-03	2E-06
24616 MARBELLA AVE	Ethanol	3.3E+01	2.1E+06	--	2E-05	--
24616 MARBELLA AVE	Naphthalene	9.6E+00	1.6E+03	3.6E+01	6E-03	3E-07
24616 MARBELLA AVE	Tetrachloroethene	9.4E+00	2.1E+04	2.1E+02	5E-04	5E-08
24616 MARBELLA AVE	Tetrahydrofuran	8.4E+00	1.0E+06	--	8E-06	--
24616 MARBELLA AVE	Toluene	7.2E+00	2.6E+06	--	3E-06	--
24616 MARBELLA AVE	trans-1,3-Dichloropropene	7.4E+00	1.0E+04	7.6E+01	7E-04	1E-07
24616 MARBELLA AVE	Trichloroethene	6.8E+01	1.0E+03	2.2E+02	7E-02	3E-07
24617 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	3.0E+00	2.6E+06	--	1E-06	--
24617 MARBELLA AVE	Carbon Disulfide	6.8E+00	3.7E+05	--	2E-05	--
24617 MARBELLA AVE	Ethanol	2.2E+01	2.1E+06	--	1E-05	--
24617 MARBELLA AVE	Naphthalene	4.7E+00	1.6E+03	3.6E+01	3E-03	1E-07
24617 MARBELLA AVE	Tetrachloroethene	3.9E+01	2.1E+04	2.1E+02	2E-03	2E-07
24617 MARBELLA AVE	Toluene	5.5E+00	2.6E+06	--	2E-06	--
24618 NEPTUNE AVE	2,2,4-Trimethylpentane	1.2E+01	5.2E+05	--	2E-05	--
24618 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	7.5E+00	2.6E+06	--	3E-06	--
24618 NEPTUNE AVE	Benzene	7.0E+00	1.6E+04	4.2E+01	5E-04	2E-07
24618 NEPTUNE AVE	Carbon Disulfide	1.8E+01	3.7E+05	--	5E-05	--
24618 NEPTUNE AVE	Chloroform	2.4E+01	5.1E+04	2.3E+02	5E-04	1E-07
24618 NEPTUNE AVE	Ethanol	7.7E+01	2.1E+06	--	4E-05	--
24618 NEPTUNE AVE	Naphthalene	2.4E+00	1.6E+03	3.6E+01	2E-03	7E-08
24618 NEPTUNE AVE	p/m-Xylene	6.9E+00	5.2E+04	--	1E-04	--
24618 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	2.6E+06	--	5E-06	--
24618 PANAMA AVE	Chloroform	4.6E+01	5.1E+04	2.3E+02	9E-04	2E-07
24618 PANAMA AVE	Ethanol	1.8E+01	2.1E+06	--	9E-06	--
24618 PANAMA AVE	Naphthalene	2.0E+00	1.6E+03	3.6E+01	1E-03	6E-08
24618 RAVENNA AVE	Chloroform	1.9E+02	5.1E+04	2.3E+02	4E-03	8E-07
24618 RAVENNA AVE	Ethanol	1.5E+01	2.1E+06	--	7E-06	--
24618 RAVENNA AVE	Isopropanol	1.5E+01	3.7E+06	--	4E-06	--
24618 RAVENNA AVE	Naphthalene	5.8E+00	1.6E+03	3.6E+01	4E-03	2E-07
24618 RAVENNA AVE	Toluene	2.5E+01	2.6E+06	--	1E-05	--
24619 NEPTUNE AVE	Ethanol	1.0E+01	2.1E+06	--	5E-06	--
24619 NEPTUNE AVE	Isopropanol	3.1E+01	3.7E+06	--	9E-06	--
24619 NEPTUNE AVE	Naphthalene	8.3E-01	1.6E+03	3.6E+01	5E-04	2E-08

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24619 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+01	2.6E+06	--	7E-06	--
24619 PANAMA AVE	Benzene	1.9E+01	1.6E+04	4.2E+01	1E-03	5E-07
24619 PANAMA AVE	Bromomethane	1.1E+01	2.6E+03	--	4E-03	--
24619 PANAMA AVE	Ethanol	6.1E+01	2.1E+06	--	3E-05	--
24619 PANAMA AVE	Isopropanol	4.8E+01	3.7E+06	--	1E-05	--
24619 PANAMA AVE	Naphthalene	6.8E+00	1.6E+03	3.6E+01	4E-03	2E-07
24619 PANAMA AVE	Tetrahydrofuran	2.1E+01	1.0E+06	--	2E-05	--
24619 PANAMA AVE	Toluene	9.7E+00	2.6E+06	--	4E-06	--
24619 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+02	2.6E+06	--	7E-05	--
24619 RAVENNA AVE	Ethanol	9.4E+00	2.1E+06	--	5E-06	--
24619 RAVENNA AVE	Methylene Chloride	6.8E+00	3.1E+05	1.2E+03	2E-05	6E-09
24619 RAVENNA AVE	Naphthalene	3.3E+00	1.6E+03	3.6E+01	2E-03	9E-08
24619 RAVENNA AVE	Tetrachloroethene	2.1E+01	2.1E+04	2.1E+02	1E-03	1E-07
24619 RAVENNA AVE	Toluene	1.4E+01	2.6E+06	--	5E-06	--
24622 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	2.6E+06	--	6E-06	--
24622 MARBELLA AVE	Carbon Disulfide	1.2E+01	3.7E+05	--	3E-05	--
24622 MARBELLA AVE	Chloroform	1.2E+01	5.1E+04	2.3E+02	2E-04	5E-08
24622 MARBELLA AVE	Tetrachloroethene	3.8E+00	2.1E+04	2.1E+02	2E-04	2E-08
24622 NEPTUNE AVE	1,2,4-Trimethylbenzene	8.1E+00	3.7E+03	--	2E-03	--
24622 NEPTUNE AVE	1,4-Dioxane	3.1E+01	1.6E+06	1.6E+02	2E-05	2E-07
24622 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	8.1E+00	2.6E+06	--	3E-06	--
24622 NEPTUNE AVE	4-Ethyltoluene	7.9E+00	5.2E+04	--	2E-04	--
24622 NEPTUNE AVE	Benzene	7.0E+00	1.6E+04	4.2E+01	5E-04	2E-07
24622 NEPTUNE AVE	Carbon Disulfide	4.0E+00	3.7E+05	--	1E-05	--
24622 NEPTUNE AVE	Chloroform	2.8E+01	5.1E+04	2.3E+02	6E-04	1E-07
24622 NEPTUNE AVE	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
24622 NEPTUNE AVE	Hexane	2.1E+00	3.7E+05	--	6E-06	--
24622 NEPTUNE AVE	Naphthalene	5.2E+00	1.6E+03	3.6E+01	3E-03	2E-07
24623 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24623 MARBELLA AVE	4-Ethyltoluene	1.2E+01	5.2E+04	--	2E-04	--
24623 MARBELLA AVE	Benzene	1.3E+02	1.6E+04	4.2E+01	8E-03	3E-06
24623 MARBELLA AVE	Carbon Disulfide	5.0E+00	3.7E+05	--	1E-05	--
24623 MARBELLA AVE	Cumene (Isopropylbenzene)	3.1E+01	2.1E+05	--	2E-04	--
24623 MARBELLA AVE	Ethanol	1.9E+01	2.1E+06	--	9E-06	--
24623 MARBELLA AVE	Naphthalene	9.6E-01	1.6E+03	3.6E+01	6E-04	3E-08
24623 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.5E+01	2.6E+06	--	1E-05	--
24623 NEPTUNE AVE	Chloroform	6.5E+00	5.1E+04	2.3E+02	1E-04	3E-08
24623 NEPTUNE AVE	Ethanol	2.1E+01	2.1E+06	--	1E-05	--
24623 NEPTUNE AVE	Isopropanol	1.7E+01	3.7E+06	--	5E-06	--
24623 NEPTUNE AVE	Naphthalene	5.4E+00	1.6E+03	3.6E+01	4E-03	2E-07
24623 NEPTUNE AVE	p/m-Xylene	6.0E+00	5.2E+04	--	1E-04	--
24623 NEPTUNE AVE	Toluene	1.1E+02	2.6E+06	--	4E-05	--
24627 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	5.8E+00	2.6E+06	--	2E-06	--
24627 MARBELLA AVE	Carbon Disulfide	9.7E+00	3.7E+05	--	3E-05	--
24627 MARBELLA AVE	Ethanol	1.4E+01	2.1E+06	--	7E-06	--
24627 MARBELLA AVE	Naphthalene	7.2E+00	1.6E+03	3.6E+01	5E-03	2E-07
24627 MARBELLA AVE	Tetrachloroethene	1.0E+01	2.1E+04	2.1E+02	5E-04	5E-08
24628 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.1E+00	2.6E+06	--	2E-06	--
24628 MARBELLA AVE	Naphthalene	1.6E+00	1.6E+03	3.6E+01	1E-03	5E-08
24628 MARBELLA AVE	p/m-Xylene	7.8E+00	5.2E+04	--	2E-04	--
24628 MARBELLA AVE	Tetrachloroethene	1.9E+00	2.1E+04	2.1E+02	9E-05	9E-09
24628 MARBELLA AVE	Toluene	5.4E+00	2.6E+06	--	2E-06	--
24628 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.6E+01	2.6E+06	--	2E-05	--
24628 NEPTUNE AVE	Bromodichloromethane	6.1E+01	3.7E+04	3.3E+01	2E-03	2E-06
24628 NEPTUNE AVE	Bromomethane	5.5E+00	2.6E+03	--	2E-03	--
24628 NEPTUNE AVE	Chloroform	1.0E+03	5.1E+04	2.3E+02	2E-02	4E-06
24628 NEPTUNE AVE	cis-1,2-Dichloroethene	5.3E+00	3.7E+03	--	2E-03	--
24628 NEPTUNE AVE	Dibromochloromethane	1.7E+01	3.7E+04	4.5E+01	5E-04	4E-07
24628 NEPTUNE AVE	Ethanol	4.3E+01	2.1E+06	--	2E-05	--
24628 NEPTUNE AVE	Naphthalene	3.2E+00	1.6E+03	3.6E+01	2E-03	9E-08

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24628 NEPTUNE AVE	Toluene	1.2E+01	2.6E+06	--	5E-06	--
24629 NEPTUNE AVE	1,2,4-Trimethylbenzene	9.2E+00	3.7E+03	--	3E-03	--
24629 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.7E+01	2.6E+06	--	1E-05	--
24629 NEPTUNE AVE	Benzene	2.3E+02	1.6E+04	4.2E+01	2E-02	6E-06
24629 NEPTUNE AVE	Bromomethane	6.4E+00	2.6E+03	--	3E-03	--
24629 NEPTUNE AVE	Carbon Disulfide	3.8E+00	3.7E+05	--	1E-05	--
24629 NEPTUNE AVE	Cumene (Isopropylbenzene)	1.0E+02	2.1E+05	--	5E-04	--
24629 NEPTUNE AVE	Ethanol	3.1E+01	2.1E+06	--	2E-05	--
24629 NEPTUNE AVE	Isopropanol	1.2E+01	3.7E+06	--	3E-06	--
24629 NEPTUNE AVE	Methylene Chloride	7.3E+00	3.1E+05	1.2E+03	2E-05	6E-09
24629 NEPTUNE AVE	Naphthalene	2.7E+00	1.6E+03	3.6E+01	2E-03	8E-08
24632 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	7.7E+01	2.6E+06	--	3E-05	--
24632 NEPTUNE AVE	2-Hexanone	5.0E+00	1.6E+04	--	3E-04	--
24632 NEPTUNE AVE	Benzene	6.3E+00	1.6E+04	4.2E+01	4E-04	2E-07
24632 NEPTUNE AVE	Bromomethane	4.9E+00	2.6E+03	--	2E-03	--
24632 NEPTUNE AVE	Carbon Disulfide	2.6E+01	3.7E+05	--	7E-05	--
24632 NEPTUNE AVE	Chloroform	5.2E+01	5.1E+04	2.3E+02	1E-03	2E-07
24632 NEPTUNE AVE	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
24632 NEPTUNE AVE	Heptane	9.0E+00	3.7E+05	--	3E-05	--
24632 NEPTUNE AVE	Hexane	1.4E+01	3.7E+05	--	4E-05	--
24632 NEPTUNE AVE	Naphthalene	1.1E+01	1.6E+03	3.6E+01	7E-03	3E-07
24632 NEPTUNE AVE	Tetrachloroethene	2.8E+01	2.1E+04	2.1E+02	1E-03	1E-07
24632 NEPTUNE AVE	Tetrahydrofuran	3.7E+00	1.0E+06	--	4E-06	--
24632 NEPTUNE AVE	Toluene	2.0E+01	2.6E+06	--	8E-06	--
24633 MARBELLA AVE	Ethanol	3.8E+01	2.1E+06	--	2E-05	--
24633 MARBELLA AVE	Isopropanol	2.9E+01	3.7E+06	--	8E-06	--
24633 MARBELLA AVE	Naphthalene	7.7E+00	1.6E+03	3.6E+01	5E-03	2E-07
24633 MARBELLA AVE	Toluene	1.1E+01	2.6E+06	--	4E-06	--
24700 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	2.5E+01	2.6E+06	--	1E-05	--
24700 MARBELLA AVE	Benzene	2.6E+01	1.6E+04	4.2E+01	2E-03	6E-07
24700 MARBELLA AVE	Bromomethane	1.9E+01	2.6E+03	--	7E-03	--
24700 MARBELLA AVE	Carbon Disulfide	9.9E+00	3.7E+05	--	3E-05	--
24700 MARBELLA AVE	Chloroform	3.4E+01	5.1E+04	2.3E+02	7E-04	2E-07
24700 MARBELLA AVE	Cyclohexane	6.7E+01	3.1E+06	--	2E-05	--
24700 MARBELLA AVE	Ethanol	2.8E+01	2.1E+06	--	1E-05	--
24700 MARBELLA AVE	Hexane	2.8E+01	3.7E+05	--	8E-05	--
24700 MARBELLA AVE	Isopropanol	1.4E+03	3.7E+06	--	4E-04	--
24700 MARBELLA AVE	Methylene Chloride	2.9E+00	3.1E+05	1.2E+03	9E-06	2E-09
24700 MARBELLA AVE	Naphthalene	5.9E+00	1.6E+03	3.6E+01	4E-03	2E-07
24700 MARBELLA AVE	Tetrachloroethene	2.7E+00	2.1E+04	2.1E+02	1E-04	1E-08
24700 MARBELLA AVE	Toluene	2.7E+00	2.6E+06	--	1E-06	--
24700 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	6.5E+00	2.6E+06	--	3E-06	--
24700 RAVENNA AVE	Benzene	9.0E-01	1.6E+04	4.2E+01	6E-05	2E-08
24700 RAVENNA AVE	Bromodichloromethane	3.5E+00	3.7E+04	3.3E+01	1E-04	1E-07
24700 RAVENNA AVE	Carbon Disulfide	7.7E-01	3.7E+05	--	2E-06	--
24700 RAVENNA AVE	Chloroform	5.3E+01	5.1E+04	2.3E+02	1E-03	2E-07
24700 RAVENNA AVE	Cumene (Isopropylbenzene)	1.4E+01	2.1E+05	--	7E-05	--
24700 RAVENNA AVE	Dibromochloromethane	7.5E-01	3.7E+04	4.5E+01	2E-05	2E-08
24700 RAVENNA AVE	Ethanol	1.6E+03	2.1E+06	--	8E-04	--
24700 RAVENNA AVE	Isopropanol	2.1E+01	3.7E+06	--	6E-06	--
24700 RAVENNA AVE	Tetrachloroethene	2.0E+01	2.1E+04	2.1E+02	1E-03	1E-07
24702 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	2.6E+06	--	4E-06	--
24702 NEPTUNE AVE	Ethanol	3.0E+01	2.1E+06	--	1E-05	--
24702 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	4.9E+00	2.6E+06	--	2E-06	--
24702 PANAMA AVE	2-Hexanone	2.0E+00	1.6E+04	--	1E-04	--
24702 PANAMA AVE	Benzene	3.8E+00	1.6E+04	4.2E+01	2E-04	9E-08
24702 PANAMA AVE	Ethanol	8.9E+01	2.1E+06	--	4E-05	--
24702 PANAMA AVE	Isopropanol	1.7E+01	3.7E+06	--	5E-06	--
24702 PANAMA AVE	Naphthalene	7.1E-01	1.6E+03	3.6E+01	5E-04	2E-08
24702 PANAMA AVE	Toluene	3.6E+01	2.6E+06	--	1E-05	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24703 MARBELLA AVE	1,4-Dioxane	2.1E+01	1.6E+06	1.6E+02	1E-05	1E-07
24703 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	2.5E+01	2.6E+06	--	1E-05	--
24703 MARBELLA AVE	Carbon Tetrachloride	1.1E+01	5.2E+04	2.9E+01	2E-04	4E-07
24703 MARBELLA AVE	Chloroform	1.6E+01	5.1E+04	2.3E+02	3E-04	7E-08
24703 MARBELLA AVE	Ethanol	4.6E+01	2.1E+06	--	2E-05	--
24703 MARBELLA AVE	Isopropanol	8.3E+00	3.7E+06	--	2E-06	--
24703 MARBELLA AVE	Naphthalene	5.3E+00	1.6E+03	3.6E+01	3E-03	2E-07
24703 MARBELLA AVE	Toluene	7.8E+00	2.6E+06	--	3E-06	--
24703 NEPTUNE AVE	1,2,4-Trimethylbenzene	6.2E+01	3.7E+03	--	2E-02	--
24703 NEPTUNE AVE	1,3,5-Trimethylbenzene	3.2E+01	3.7E+03	--	9E-03	--
24703 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.5E+00	2.6E+06	--	2E-06	--
24703 NEPTUNE AVE	4-Ethyltoluene	3.2E+01	5.2E+04	--	6E-04	--
24703 NEPTUNE AVE	Benzene	7.0E+00	1.6E+04	4.2E+01	5E-04	2E-07
24703 NEPTUNE AVE	Cumene (Isopropylbenzene)	1.0E+01	2.1E+05	--	5E-05	--
24703 NEPTUNE AVE	Isopropanol	1.8E+01	3.7E+06	--	5E-06	--
24703 NEPTUNE AVE	Naphthalene	9.9E+00	1.6E+03	3.6E+01	6E-03	3E-07
24703 NEPTUNE AVE	o-Xylene	8.1E+00	5.2E+04	--	2E-04	--
24703 NEPTUNE AVE	p/m-Xylene	1.2E+01	5.2E+04	--	2E-04	--
24703 NEPTUNE AVE	Trichloroethene	2.1E+00	1.0E+03	2.2E+02	2E-03	1E-08
24703 RAVENNA AVE	1,4-Dioxane	3.9E+00	1.6E+06	1.6E+02	3E-06	3E-08
24703 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	4.2E+00	2.6E+06	--	2E-06	--
24703 RAVENNA AVE	Chloroform	8.0E+00	5.1E+04	2.3E+02	2E-04	4E-08
24703 RAVENNA AVE	Ethanol	1.7E+01	2.1E+06	--	8E-06	--
24703 RAVENNA AVE	Isopropanol	2.0E+01	3.7E+06	--	6E-06	--
24703 RAVENNA AVE	Naphthalene	4.1E+00	1.6E+03	3.6E+01	3E-03	1E-07
24703 RAVENNA AVE	Tetrachloroethene	4.5E+00	2.1E+04	2.1E+02	2E-04	2E-08
24703 RAVENNA AVE	Toluene	8.0E+00	2.6E+06	--	3E-06	--
24706 MARBELLA AVE	1,2,4-Trimethylbenzene	1.7E+01	3.7E+03	--	5E-03	--
24706 MARBELLA AVE	1,3,5-Trimethylbenzene	7.9E+00	3.7E+03	--	2E-03	--
24706 MARBELLA AVE	2,2,4-Trimethylpentane	6.8E+01	5.2E+05	--	1E-04	--
24706 MARBELLA AVE	4-Ethyltoluene	8.1E+00	5.2E+04	--	2E-04	--
24706 MARBELLA AVE	Benzene	1.6E+01	1.6E+04	4.2E+01	1E-03	4E-07
24706 MARBELLA AVE	Bromomethane	6.3E+01	2.6E+03	--	2E-02	--
24706 MARBELLA AVE	Chloroform	1.8E+02	5.1E+04	2.3E+02	4E-03	8E-07
24706 MARBELLA AVE	Cumene (Isopropylbenzene)	1.8E+01	2.1E+05	--	9E-05	--
24706 MARBELLA AVE	Cyclohexane	3.6E+02	3.1E+06	--	1E-04	--
24706 MARBELLA AVE	Ethylbenzene	8.2E+00	5.2E+05	4.9E+02	2E-05	2E-08
24706 MARBELLA AVE	Heptane	9.5E+00	3.7E+05	--	3E-05	--
24706 MARBELLA AVE	Hexane	2.3E+01	3.7E+05	--	6E-05	--
24706 MARBELLA AVE	Naphthalene	2.4E+00	1.6E+03	3.6E+01	2E-03	7E-08
24706 MARBELLA AVE	o-Xylene	6.3E+00	5.2E+04	--	1E-04	--
24706 MARBELLA AVE	p/m-Xylene	1.9E+01	5.2E+04	--	4E-04	--
24706 MARBELLA AVE	Propylbenzene	9.0E+00	5.2E+05	--	2E-05	--
24706 MARBELLA AVE	Toluene	1.3E+01	2.6E+06	--	5E-06	--
24706 RAVENNA AVE	1,2,4-Trimethylbenzene	6.2E+00	3.7E+03	--	2E-03	--
24706 RAVENNA AVE	2,2,4-Trimethylpentane	6.1E+00	5.2E+05	--	1E-05	--
24706 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	2.6E+06	--	6E-06	--
24706 RAVENNA AVE	Benzene	2.2E+01	1.6E+04	4.2E+01	1E-03	5E-07
24706 RAVENNA AVE	Carbon Disulfide	1.8E+01	3.7E+05	--	5E-05	--
24706 RAVENNA AVE	Chloroform	1.0E+02	5.1E+04	2.3E+02	2E-03	4E-07
24706 RAVENNA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24706 RAVENNA AVE	Naphthalene	3.0E+00	1.6E+03	3.6E+01	2E-03	8E-08
24706 RAVENNA AVE	Toluene	4.0E+01	2.6E+06	--	2E-05	--
24707 MARBELLA AVE	1,4-Dioxane	1.7E+01	1.6E+06	1.6E+02	1E-05	1E-07
24707 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	2.6E+06	--	8E-06	--
24707 MARBELLA AVE	Carbon Disulfide	5.1E+00	3.7E+05	--	1E-05	--
24707 MARBELLA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24707 MARBELLA AVE	Isopropanol	1.2E+01	3.7E+06	--	3E-06	--
24707 MARBELLA AVE	Naphthalene	7.1E+00	1.6E+03	3.6E+01	5E-03	2E-07
24707 MARBELLA AVE	Tetrachloroethene	1.6E+01	2.1E+04	2.1E+02	8E-04	8E-08

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24708 PANAMA AVE	1,4-Dioxane	2.0E+02	1.6E+06	1.6E+02	1E-04	1E-06
24708 PANAMA AVE	Chloroform	7.2E+00	5.1E+04	2.3E+02	1E-04	3E-08
24708 PANAMA AVE	Ethanol	3.7E+01	2.1E+06	--	2E-05	--
24708 PANAMA AVE	Naphthalene	3.8E+00	1.6E+03	3.6E+01	2E-03	1E-07
24708 PANAMA AVE	Tetrachloroethene	2.0E+00	2.1E+04	2.1E+02	1E-04	1E-08
24709 NEPTUNE AVE	1,2,4-Trimethylbenzene	6.6E+00	3.7E+03	--	2E-03	--
24709 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.0E+01	2.6E+06	--	8E-06	--
24709 NEPTUNE AVE	Benzene	1.5E+01	1.6E+04	4.2E+01	1E-03	4E-07
24709 NEPTUNE AVE	Ethanol	4.6E+02	2.1E+06	--	2E-04	--
24709 NEPTUNE AVE	Naphthalene	1.6E+02	1.6E+03	3.6E+01	1E-01	5E-06
24709 NEPTUNE AVE	p/m-Xylene	5.0E+00	5.2E+04	--	1E-04	--
24709 NEPTUNE AVE	Tetrachloroethene	4.8E+00	2.1E+04	2.1E+02	2E-04	2E-08
24709 NEPTUNE AVE	Toluene	5.5E+00	2.6E+06	--	2E-06	--
24709 PANAMA AVE	1,2-Dichloropropane	2.2E+01	2.1E+03	1.2E+02	1E-02	2E-07
24709 PANAMA AVE	1,4-Dichlorobenzene	8.6E+00	4.2E+05	1.1E+02	2E-05	8E-08
24709 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	2.6E+06	--	4E-06	--
24709 PANAMA AVE	Carbon Disulfide	5.4E+01	3.7E+05	--	2E-04	--
24709 PANAMA AVE	Chloroform	2.9E+01	5.1E+04	2.3E+02	6E-04	1E-07
24709 PANAMA AVE	Ethanol	6.7E+01	2.1E+06	--	3E-05	--
24709 PANAMA AVE	Isopropanol	1.3E+01	3.7E+06	--	4E-06	--
24709 PANAMA AVE	Naphthalene	1.6E+01	1.6E+03	3.6E+01	1E-02	5E-07
24709 PANAMA AVE	Tetrachloroethene	2.0E+00	2.1E+04	2.1E+02	1E-04	1E-08
24709 PANAMA AVE	Toluene	9.7E+00	2.6E+06	--	4E-06	--
24709 PANAMA AVE	Trichloroethene	2.2E+00	1.0E+03	2.2E+02	2E-03	1E-08
24709 RAVENNA AVE	1,2,4-Trimethylbenzene	2.5E+01	3.7E+03	--	7E-03	--
24709 RAVENNA AVE	1,3,5-Trimethylbenzene	7.4E+00	3.7E+03	--	2E-03	--
24709 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+01	2.6E+06	--	3E-05	--
24709 RAVENNA AVE	2-Hexanone	7.4E+01	1.6E+04	--	5E-03	--
24709 RAVENNA AVE	4-Ethyltoluene	2.2E+01	5.2E+04	--	4E-04	--
24709 RAVENNA AVE	Benzene	7.0E+00	1.6E+04	4.2E+01	5E-04	2E-07
24709 RAVENNA AVE	Carbon Disulfide	7.4E+00	3.7E+05	--	2E-05	--
24709 RAVENNA AVE	Chloroform	6.7E+00	5.1E+04	2.3E+02	1E-04	3E-08
24709 RAVENNA AVE	Cumene (Isopropylbenzene)	1.5E+01	2.1E+05	--	7E-05	--
24709 RAVENNA AVE	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
24709 RAVENNA AVE	Ethylbenzene	8.6E+00	5.2E+05	4.9E+02	2E-05	2E-08
24709 RAVENNA AVE	Heptane	4.9E+00	3.7E+05	--	1E-05	--
24709 RAVENNA AVE	Naphthalene	1.7E+01	1.6E+03	3.6E+01	1E-02	5E-07
24709 RAVENNA AVE	o-Xylene	1.6E+01	5.2E+04	--	3E-04	--
24709 RAVENNA AVE	p/m-Xylene	4.5E+01	5.2E+04	--	9E-04	--
24709 RAVENNA AVE	Propylbenzene	6.8E+00	5.2E+05	--	1E-05	--
24709 RAVENNA AVE	Toluene	1.1E+01	2.6E+06	--	4E-06	--
24710 MARBELLA AVE	1,2,4-Trimethylbenzene	6.0E+01	3.7E+03	--	2E-02	--
24710 MARBELLA AVE	1,2-Dichloropropane	7.3E+00	2.1E+03	1.2E+02	4E-03	6E-08
24710 MARBELLA AVE	1,3,5-Trimethylbenzene	1.8E+01	3.7E+03	--	5E-03	--
24710 MARBELLA AVE	1,4-Dioxane	1.8E+01	1.6E+06	1.6E+02	1E-05	1E-07
24710 MARBELLA AVE	2,2,4-Trimethylpentane	2.2E+01	5.2E+05	--	4E-05	--
24710 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.4E+00	2.6E+06	--	2E-06	--
24710 MARBELLA AVE	4-Ethyltoluene	2.9E+01	5.2E+04	--	6E-04	--
24710 MARBELLA AVE	Carbon Disulfide	4.6E+00	3.7E+05	--	1E-05	--
24710 MARBELLA AVE	Chloroform	3.6E+01	5.1E+04	2.3E+02	7E-04	2E-07
24710 MARBELLA AVE	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
24710 MARBELLA AVE	Ethylbenzene	7.4E+00	5.2E+05	4.9E+02	1E-05	2E-08
24710 MARBELLA AVE	Isopropanol	1.8E+01	3.7E+06	--	5E-06	--
24710 MARBELLA AVE	Naphthalene	3.5E+00	1.6E+03	3.6E+01	2E-03	1E-07
24710 MARBELLA AVE	o-Xylene	3.7E+01	5.2E+04	--	7E-04	--
24710 MARBELLA AVE	p/m-Xylene	5.7E+01	5.2E+04	--	1E-03	--
24710 MARBELLA AVE	Propylbenzene	4.5E+00	5.2E+05	--	9E-06	--
24710 MARBELLA AVE	Toluene	3.5E+01	2.6E+06	--	1E-05	--
24710 MARBELLA AVE	Trichloroethene	1.2E+01	1.0E+03	2.2E+02	1E-02	6E-08
24712 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.2E+02	3.7E+03	--	3E-02	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24712 NEPTUNE AVE	1,3,5-Trimethylbenzene	1.2E+01	3.7E+03	--	3E-03	--
24712 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	7.3E+00	2.6E+06	--	3E-06	--
24712 NEPTUNE AVE	4-Ethyltoluene	4.2E+01	5.2E+04	--	8E-04	--
24712 NEPTUNE AVE	Benzene	2.3E+01	1.6E+04	4.2E+01	2E-03	6E-07
24712 NEPTUNE AVE	Bromodichloromethane	2.9E+01	3.7E+04	3.3E+01	8E-04	9E-07
24712 NEPTUNE AVE	Chloroform	5.8E+02	5.1E+04	2.3E+02	1E-02	3E-06
24712 NEPTUNE AVE	Cumene (Isopropylbenzene)	6.8E+00	2.1E+05	--	3E-05	--
24712 NEPTUNE AVE	Cyclohexane	6.4E+00	3.1E+06	--	2E-06	--
24712 NEPTUNE AVE	Dibromochloromethane	2.3E+01	3.7E+04	4.5E+01	6E-04	5E-07
24712 NEPTUNE AVE	Ethanol	1.5E+01	2.1E+06	--	7E-06	--
24712 NEPTUNE AVE	Ethylbenzene	5.8E+01	5.2E+05	4.9E+02	1E-04	1E-07
24712 NEPTUNE AVE	Heptane	1.4E+01	3.7E+05	--	4E-05	--
24712 NEPTUNE AVE	Hexane	8.5E+00	3.7E+05	--	2E-05	--
24712 NEPTUNE AVE	Methylene Chloride	1.8E+00	3.1E+05	1.2E+03	6E-06	2E-09
24712 NEPTUNE AVE	Naphthalene	6.0E+01	1.6E+03	3.6E+01	4E-02	2E-06
24712 NEPTUNE AVE	o-Xylene	6.7E+00	5.2E+04	--	1E-04	--
24712 NEPTUNE AVE	p/m-Xylene	8.8E+01	5.2E+04	--	2E-03	--
24712 NEPTUNE AVE	Propylbenzene	1.7E+01	5.2E+05	--	3E-05	--
24712 NEPTUNE AVE	Toluene	2.0E+01	2.6E+06	--	8E-06	--
24712 PANAMA AVE	2,2,4-Trimethylpentane	1.3E+01	5.2E+05	--	3E-05	--
24712 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	3.6E+00	2.6E+06	--	1E-06	--
24712 PANAMA AVE	Heptane	1.2E+01	3.7E+05	--	3E-05	--
24712 PANAMA AVE	Hexane	1.2E+01	3.7E+05	--	3E-05	--
24712 PANAMA AVE	Naphthalene	7.3E-01	1.6E+03	3.6E+01	5E-04	2E-08
24712 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	5.3E+00	2.6E+06	--	2E-06	--
24712 RAVENNA AVE	Chloroform	4.1E+00	5.1E+04	2.3E+02	8E-05	2E-08
24712 RAVENNA AVE	Ethanol	2.2E+01	2.1E+06	--	1E-05	--
24712 RAVENNA AVE	Isopropanol	1.6E+01	3.7E+06	--	4E-06	--
24712 RAVENNA AVE	Methylene Chloride	5.0E+01	3.1E+05	1.2E+03	2E-04	4E-08
24712 RAVENNA AVE	Naphthalene	5.0E+00	1.6E+03	3.6E+01	3E-03	1E-07
24712 RAVENNA AVE	Tetrachloroethene	4.6E+00	2.1E+04	2.1E+02	2E-04	2E-08
24713 MARBELLA AVE	Isopropanol	3.3E+01	3.7E+06	--	9E-06	--
24713 MARBELLA AVE	Methylene Chloride	6.1E+00	3.1E+05	1.2E+03	2E-05	5E-09
24713 MARBELLA AVE	Naphthalene	2.0E+00	1.6E+03	3.6E+01	1E-03	6E-08
24713 MARBELLA AVE	Toluene	6.2E+00	2.6E+06	--	2E-06	--
24713 PANAMA AVE	1,2,4-Trimethylbenzene	8.2E+00	3.7E+03	--	2E-03	--
24713 PANAMA AVE	4-Ethyltoluene	6.8E+00	5.2E+04	--	1E-04	--
24713 PANAMA AVE	Benzene	3.9E+00	1.6E+04	4.2E+01	3E-04	9E-08
24713 PANAMA AVE	Bromodichloromethane	2.9E+01	3.7E+04	3.3E+01	8E-04	9E-07
24713 PANAMA AVE	Carbon Disulfide	1.8E+01	3.7E+05	--	5E-05	--
24713 PANAMA AVE	Chloroform	1.1E+02	5.1E+04	2.3E+02	2E-03	5E-07
24713 PANAMA AVE	Naphthalene	5.5E+00	1.6E+03	3.6E+01	4E-03	2E-07
24713 PANAMA AVE	p/m-Xylene	1.2E+01	5.2E+04	--	2E-04	--
24713 PANAMA AVE	Tetrachloroethene	2.0E+02	2.1E+04	2.1E+02	1E-02	1E-06
24713 PANAMA AVE	Toluene	5.6E+00	2.6E+06	--	2E-06	--
24713 RAVENNA AVE	Chloroform	4.0E+02	5.1E+04	2.3E+02	8E-03	2E-06
24713 RAVENNA AVE	Ethanol	1.8E+01	2.1E+06	--	9E-06	--
24713 RAVENNA AVE	Naphthalene	1.3E+00	1.6E+03	3.6E+01	8E-04	4E-08
24715 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	3.6E+01	2.6E+06	--	1E-05	--
24715 NEPTUNE AVE	Benzene	4.6E+00	1.6E+04	4.2E+01	3E-04	1E-07
24715 NEPTUNE AVE	Bromomethane	9.9E+00	2.6E+03	--	4E-03	--
24715 NEPTUNE AVE	Ethanol	6.3E+01	2.1E+06	--	3E-05	--
24715 NEPTUNE AVE	Isopropanol	3.1E+01	3.7E+06	--	9E-06	--
24715 NEPTUNE AVE	Naphthalene	2.4E+00	1.6E+03	3.6E+01	2E-03	7E-08
24715 NEPTUNE AVE	Toluene	7.5E+00	2.6E+06	--	3E-06	--
24716 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.7E+01	2.6E+06	--	7E-06	--
24716 MARBELLA AVE	Benzene	5.6E+00	1.6E+04	4.2E+01	4E-04	1E-07
24716 MARBELLA AVE	Carbon Disulfide	4.0E+00	3.7E+05	--	1E-05	--
24716 MARBELLA AVE	Chloroform	8.9E+02	5.1E+04	2.3E+02	2E-02	4E-06
24716 MARBELLA AVE	cis-1,2-Dichloroethene	4.2E+00	3.7E+03	--	1E-03	--

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Detailed Risk Calculations

Table E-5
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Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24716 MARBELLA AVE	Cyclohexane	9.8E+00	3.1E+06	--	3E-06	--
24716 MARBELLA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24716 MARBELLA AVE	Ethylbenzene	4.9E+00	5.2E+05	4.9E+02	9E-06	1E-08
24716 MARBELLA AVE	Naphthalene	4.9E+00	1.6E+03	3.6E+01	3E-03	1E-07
24716 MARBELLA AVE	Tetrachloroethene	2.8E+01	2.1E+04	2.1E+02	1E-03	1E-07
24716 MARBELLA AVE	Tetrahydrofuran	8.6E+00	1.0E+06	--	8E-06	--
24716 MARBELLA AVE	Toluene	6.2E+00	2.6E+06	--	2E-06	--
24716 MARBELLA AVE	Trichloroethene	2.2E+01	1.0E+03	2.2E+02	2E-02	1E-07
24716 RAVENNA AVE	Chloroform	4.9E+01	5.1E+04	2.3E+02	1E-03	2E-07
24716 RAVENNA AVE	Naphthalene	1.5E+00	1.6E+03	3.6E+01	1E-03	4E-08
24717 MARBELLA AVE	1,4-Dichlorobenzene	1.1E+01	4.2E+05	1.1E+02	3E-05	1E-07
24717 MARBELLA AVE	2,2,4-Trimethylpentane	5.5E+00	5.2E+05	--	1E-05	--
24717 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	9.6E+00	2.6E+06	--	4E-06	--
24717 MARBELLA AVE	Benzene	5.2E+00	1.6E+04	4.2E+01	3E-04	1E-07
24717 MARBELLA AVE	Carbon Disulfide	9.1E+01	3.7E+05	--	3E-04	--
24717 MARBELLA AVE	Chloroform	1.6E+01	5.1E+04	2.3E+02	3E-04	7E-08
24717 MARBELLA AVE	Ethanol	2.0E+01	2.1E+06	--	1E-05	--
24717 MARBELLA AVE	Hexane	5.9E+00	3.7E+05	--	2E-05	--
24717 MARBELLA AVE	Methylene Chloride	4.6E+00	3.1E+05	1.2E+03	2E-05	4E-09
24717 MARBELLA AVE	Naphthalene	3.9E+00	1.6E+03	3.6E+01	3E-03	1E-07
24717 MARBELLA AVE	p/m-Xylene	6.3E+00	5.2E+04	--	1E-04	--
24717 MARBELLA AVE	Tetrachloroethene	2.2E+01	2.1E+04	2.1E+02	1E-03	1E-07
24717 MARBELLA AVE	Toluene	7.8E+00	2.6E+06	--	3E-06	--
24718 NEPTUNE AVE	Ethanol	2.4E+01	2.1E+06	--	1E-05	--
24718 NEPTUNE AVE	Isopropanol	1.4E+01	3.7E+06	--	4E-06	--
24718 NEPTUNE AVE	Methylene Chloride	3.9E+01	3.1E+05	1.2E+03	1E-04	3E-08
24718 NEPTUNE AVE	Naphthalene	3.9E+00	1.6E+03	3.6E+01	3E-03	1E-07
24718 NEPTUNE AVE	Tetrachloroethene	5.4E+01	2.1E+04	2.1E+02	3E-03	3E-07
24718 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	2.6E+06	--	4E-06	--
24718 PANAMA AVE	Chloroform	2.9E+02	5.1E+04	2.3E+02	6E-03	1E-06
24718 PANAMA AVE	Ethanol	3.2E+01	2.1E+06	--	2E-05	--
24718 PANAMA AVE	Naphthalene	6.7E-01	1.6E+03	3.6E+01	4E-04	2E-08
24718 PANAMA AVE	Tetrachloroethene	2.5E+02	2.1E+04	2.1E+02	1E-02	1E-06
24718 PANAMA AVE	Toluene	2.6E+01	2.6E+06	--	1E-05	--
24718 PANAMA AVE	Trichloroethene	1.6E+01	1.0E+03	2.2E+02	2E-02	7E-08
24719 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	2.6E+06	--	6E-06	--
24719 NEPTUNE AVE	Benzene	4.8E+01	1.6E+04	4.2E+01	3E-03	1E-06
24719 NEPTUNE AVE	Carbon Disulfide	1.1E+01	3.7E+05	--	3E-05	--
24719 NEPTUNE AVE	Chloroform	8.3E+02	5.1E+04	2.3E+02	2E-02	4E-06
24719 NEPTUNE AVE	Cumene (Isopropylbenzene)	6.7E+00	2.1E+05	--	3E-05	--
24719 NEPTUNE AVE	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
24719 NEPTUNE AVE	Isopropanol	8.7E+01	3.7E+06	--	2E-05	--
24719 NEPTUNE AVE	Naphthalene	3.2E+00	1.6E+03	3.6E+01	2E-03	9E-08
24719 NEPTUNE AVE	Tetrahydrofuran	2.4E+01	1.0E+06	--	2E-05	--
24719 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	2.1E+01	2.6E+06	--	8E-06	--
24719 PANAMA AVE	2-Hexanone	2.0E+00	1.6E+04	--	1E-04	--
24719 PANAMA AVE	Carbon Disulfide	5.6E+00	3.7E+05	--	2E-05	--
24719 PANAMA AVE	Chloroform	1.9E+01	5.1E+04	2.3E+02	4E-04	8E-08
24719 PANAMA AVE	Ethanol	2.9E+01	2.1E+06	--	1E-05	--
24719 PANAMA AVE	Heptane	1.1E+01	3.7E+05	--	3E-05	--
24719 PANAMA AVE	Hexane	1.9E+01	3.7E+05	--	5E-05	--
24719 PANAMA AVE	Isopropanol	2.5E+01	3.7E+06	--	7E-06	--
24719 PANAMA AVE	Naphthalene	3.1E+00	1.6E+03	3.6E+01	2E-03	9E-08
24719 PANAMA AVE	Toluene	1.2E+01	2.6E+06	--	5E-06	--
24719 RAVENNA AVE	Ethanol	9.9E+00	2.1E+06	--	5E-06	--
24719 RAVENNA AVE	Isopropanol	1.4E+01	3.7E+06	--	4E-06	--
24719 RAVENNA AVE	Naphthalene	4.7E+00	1.6E+03	3.6E+01	3E-03	1E-07
24719 RAVENNA AVE	Toluene	4.6E+00	2.6E+06	--	2E-06	--
24722 MARBELLA AVE	1,4-Dioxane	3.9E+01	1.6E+06	1.6E+02	3E-05	3E-07
24722 MARBELLA AVE	2-Hexanone	1.8E+00	1.6E+04	--	1E-04	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24722 MARBELLA AVE	Naphthalene	2.4E+00	1.6E+03	3.6E+01	2E-03	7E-08
24722 MARBELLA AVE	Toluene	4.8E+00	2.6E+06	--	2E-06	--
24722 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.5E+00	2.6E+06	--	2E-06	--
24722 NEPTUNE AVE	Benzene	2.7E+02	1.6E+04	4.2E+01	2E-02	6E-06
24722 NEPTUNE AVE	Cyclohexane	2.5E+00	3.1E+06	--	8E-07	--
24722 NEPTUNE AVE	Ethanol	3.7E+01	2.1E+06	--	2E-05	--
24722 NEPTUNE AVE	Isopropanol	2.0E+01	3.7E+06	--	6E-06	--
24722 NEPTUNE AVE	Naphthalene	2.3E+00	1.6E+03	3.6E+01	2E-03	6E-08
24722 NEPTUNE AVE	Toluene	3.8E+01	2.6E+06	--	2E-05	--
24722 PANAMA AVE	1,2,4-Trimethylbenzene	1.6E+01	3.7E+03	--	4E-03	--
24722 PANAMA AVE	1,4-Dichlorobenzene	7.2E+00	4.2E+05	1.1E+02	2E-05	7E-08
24722 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	2.8E+01	2.6E+06	--	1E-05	--
24722 PANAMA AVE	4-Ethyltoluene	1.3E+01	5.2E+04	--	3E-04	--
24722 PANAMA AVE	Benzene	9.7E+00	1.6E+04	4.2E+01	6E-04	2E-07
24722 PANAMA AVE	Bromodichloromethane	3.6E+01	3.7E+04	3.3E+01	1E-03	1E-06
24722 PANAMA AVE	Carbon Disulfide	8.2E+00	3.7E+05	--	2E-05	--
24722 PANAMA AVE	Chloroform	4.2E+01	5.1E+04	2.3E+02	8E-04	2E-07
24722 PANAMA AVE	Dibromochloromethane	3.2E+01	3.7E+04	4.5E+01	9E-04	7E-07
24722 PANAMA AVE	Ethanol	2.0E+02	2.1E+06	--	1E-04	--
24722 PANAMA AVE	Ethylbenzene	6.9E+00	5.2E+05	4.9E+02	1E-05	1E-08
24722 PANAMA AVE	Heptane	8.5E+00	3.7E+05	--	2E-05	--
24722 PANAMA AVE	Hexane	5.5E+00	3.7E+05	--	2E-05	--
24722 PANAMA AVE	Isopropanol	4.9E+01	3.7E+06	--	1E-05	--
24722 PANAMA AVE	Naphthalene	1.3E+01	1.6E+03	3.6E+01	8E-03	4E-07
24722 PANAMA AVE	o-Xylene	6.9E+00	5.2E+04	--	1E-04	--
24722 PANAMA AVE	p/m-Xylene	2.6E+01	5.2E+04	--	5E-04	--
24722 PANAMA AVE	Tetrahydrofuran	8.2E+00	1.0E+06	--	8E-06	--
24722 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	4.0E+00	2.6E+06	--	2E-06	--
24722 RAVENNA AVE	Chloroform	5.8E+00	5.1E+04	2.3E+02	1E-04	3E-08
24722 RAVENNA AVE	Ethanol	1.9E+01	2.1E+06	--	9E-06	--
24722 RAVENNA AVE	Naphthalene	2.3E+00	1.6E+03	3.6E+01	2E-03	6E-08
24723 MARBELLA AVE	1,4-Dioxane	6.6E+01	1.6E+06	1.6E+02	4E-05	4E-07
24723 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.6E+00	2.6E+06	--	2E-06	--
24723 MARBELLA AVE	Benzene	3.8E+00	1.6E+04	4.2E+01	2E-04	9E-08
24723 MARBELLA AVE	Ethanol	4.8E+01	2.1E+06	--	2E-05	--
24723 MARBELLA AVE	Naphthalene	4.1E+00	1.6E+03	3.6E+01	3E-03	1E-07
24723 MARBELLA AVE	Tetrachloroethene	4.3E+02	2.1E+04	2.1E+02	2E-02	2E-06
24723 MARBELLA AVE	Tetrahydrofuran	1.1E+01	1.0E+06	--	1E-05	--
24723 MARBELLA AVE	Toluene	6.9E+01	2.6E+06	--	3E-05	--
24723 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	2.6E+06	--	5E-06	--
24723 RAVENNA AVE	Bromodichloromethane	2.7E+01	3.7E+04	3.3E+01	7E-04	8E-07
24723 RAVENNA AVE	Chloroform	6.5E+01	5.1E+04	2.3E+02	1E-03	3E-07
24723 RAVENNA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24723 RAVENNA AVE	Naphthalene	1.1E+00	1.6E+03	3.6E+01	7E-04	3E-08
24723 RAVENNA AVE	Toluene	5.0E+00	2.6E+06	--	2E-06	--
24725 NEPTUNE AVE	1,2,4-Trimethylbenzene	7.7E+00	3.7E+03	--	2E-03	--
24725 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	3.6E+00	2.6E+06	--	1E-06	--
24725 NEPTUNE AVE	4-Ethyltoluene	6.6E+00	5.2E+04	--	1E-04	--
24725 NEPTUNE AVE	Benzene	4.3E+00	1.6E+04	4.2E+01	3E-04	1E-07
24725 NEPTUNE AVE	Chloroform	1.3E+02	5.1E+04	2.3E+02	3E-03	6E-07
24725 NEPTUNE AVE	Ethanol	2.4E+01	2.1E+06	--	1E-05	--
24725 NEPTUNE AVE	Naphthalene	6.0E+00	1.6E+03	3.6E+01	4E-03	2E-07
24725 NEPTUNE AVE	p/m-Xylene	1.1E+01	5.2E+04	--	2E-04	--
24725 NEPTUNE AVE	Toluene	8.6E+00	2.6E+06	--	3E-06	--
24726 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.4E+00	2.6E+06	--	2E-06	--
24726 MARBELLA AVE	Benzene	5.2E+00	1.6E+04	4.2E+01	3E-04	1E-07
24726 MARBELLA AVE	Chloroform	6.4E+01	5.1E+04	2.3E+02	1E-03	3E-07
24726 MARBELLA AVE	Naphthalene	3.0E+00	1.6E+03	3.6E+01	2E-03	8E-08
24726 MARBELLA AVE	Tetrachloroethene	1.6E+01	2.1E+04	2.1E+02	8E-04	8E-08
24726 RAVENNA AVE	Chloroform	1.0E+01	5.1E+04	2.3E+02	2E-04	4E-08

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24726 RAVENNA AVE	Isopropanol	2.0E+01	3.7E+06	--	6E-06	--
24726 RAVENNA AVE	Naphthalene	2.2E+00	1.6E+03	3.6E+01	1E-03	6E-08
24727 MARBELLA AVE	1,4-Dioxane	1.9E+01	1.6E+06	1.6E+02	1E-05	1E-07
24727 MARBELLA AVE	Naphthalene	5.7E-01	1.6E+03	3.6E+01	4E-04	2E-08
24727 MARBELLA AVE	Tetrachloroethene	3.1E+00	2.1E+04	2.1E+02	2E-04	2E-08
24727 MARBELLA AVE	Toluene	5.0E+00	2.6E+06	--	2E-06	--
24728 NEPTUNE AVE	1,2,4-Trimethylbenzene	7.0E+00	3.7E+03	--	2E-03	--
24728 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	2.6E+06	--	6E-06	--
24728 NEPTUNE AVE	Carbon Disulfide	3.9E+00	3.7E+05	--	1E-05	--
24728 NEPTUNE AVE	Ethanol	1.2E+02	2.1E+06	--	6E-05	--
24728 NEPTUNE AVE	Heptane	2.5E+00	3.7E+05	--	7E-06	--
24728 NEPTUNE AVE	Hexane	4.5E+00	3.7E+05	--	1E-05	--
24728 NEPTUNE AVE	Isopropanol	9.0E+01	3.7E+06	--	3E-05	--
24728 NEPTUNE AVE	Naphthalene	3.4E+00	1.6E+03	3.6E+01	2E-03	1E-07
24728 NEPTUNE AVE	p/m-Xylene	9.2E+00	5.2E+04	--	2E-04	--
24728 NEPTUNE AVE	Tetrachloroethene	2.1E+02	2.1E+04	2.1E+02	1E-02	1E-06
24728 NEPTUNE AVE	Trichloroethene	7.4E+00	1.0E+03	2.2E+02	7E-03	3E-08
24728 PANAMA AVE	1,2,4-Trimethylbenzene	1.5E+01	3.7E+03	--	4E-03	--
24728 PANAMA AVE	4-Ethyltoluene	9.8E+00	5.2E+04	--	2E-04	--
24728 PANAMA AVE	Ethanol	5.1E+01	2.1E+06	--	2E-05	--
24728 PANAMA AVE	Naphthalene	3.4E+00	1.6E+03	3.6E+01	2E-03	1E-07
24728 PANAMA AVE	o-Xylene	6.5E+00	5.2E+04	--	1E-04	--
24728 PANAMA AVE	p/m-Xylene	1.6E+01	5.2E+04	--	3E-04	--
24729 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	9.0E+00	2.6E+06	--	4E-06	--
24729 NEPTUNE AVE	Benzene	5.9E+00	1.6E+04	4.2E+01	4E-04	1E-07
24729 NEPTUNE AVE	Bromodichloromethane	3.1E+01	3.7E+04	3.3E+01	9E-04	9E-07
24729 NEPTUNE AVE	Carbon Disulfide	3.8E+01	3.7E+05	--	1E-04	--
24729 NEPTUNE AVE	Chloroform	7.2E+01	5.1E+04	2.3E+02	1E-03	3E-07
24729 NEPTUNE AVE	Ethanol	2.2E+01	2.1E+06	--	1E-05	--
24729 NEPTUNE AVE	Naphthalene	8.6E+00	1.6E+03	3.6E+01	6E-03	2E-07
24729 NEPTUNE AVE	Tetrahydrofuran	3.4E+00	1.0E+06	--	3E-06	--
24729 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	3.8E+00	2.6E+06	--	2E-06	--
24729 PANAMA AVE	Carbon Disulfide	9.8E+00	3.7E+05	--	3E-05	--
24729 PANAMA AVE	Naphthalene	1.1E+00	1.6E+03	3.6E+01	7E-04	3E-08
24729 PANAMA AVE	Toluene	2.2E+01	2.6E+06	--	8E-06	--
24729 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	4.2E+00	2.6E+06	--	2E-06	--
24729 RAVENNA AVE	Benzene	7.2E+00	1.6E+04	4.2E+01	5E-04	2E-07
24729 RAVENNA AVE	Carbon Disulfide	1.1E+01	3.7E+05	--	3E-05	--
24729 RAVENNA AVE	Chloroform	7.4E+00	5.1E+04	2.3E+02	1E-04	3E-08
24729 RAVENNA AVE	Ethanol	4.0E+01	2.1E+06	--	2E-05	--
24729 RAVENNA AVE	Isopropanol	1.3E+01	3.7E+06	--	4E-06	--
24729 RAVENNA AVE	Naphthalene	1.2E+00	1.6E+03	3.6E+01	8E-04	3E-08
24732 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	9.0E+00	2.6E+06	--	4E-06	--
24732 MARBELLA AVE	Chloroform	1.1E+01	5.1E+04	2.3E+02	2E-04	5E-08
24732 MARBELLA AVE	Ethanol	3.8E+01	2.1E+06	--	2E-05	--
24732 MARBELLA AVE	Hexane	4.7E+00	3.7E+05	--	1E-05	--
24732 MARBELLA AVE	Naphthalene	3.7E+00	1.6E+03	3.6E+01	2E-03	1E-07
24732 MARBELLA AVE	Toluene	1.4E+01	2.6E+06	--	5E-06	--
24732 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	2.6E+06	--	6E-06	--
24732 NEPTUNE AVE	Carbon Disulfide	4.4E+00	3.7E+05	--	1E-05	--
24732 NEPTUNE AVE	Chloroform	2.0E+01	5.1E+04	2.3E+02	4E-04	9E-08
24732 NEPTUNE AVE	Cyclohexane	1.4E+01	3.1E+06	--	5E-06	--
24732 NEPTUNE AVE	Ethanol	2.3E+01	2.1E+06	--	1E-05	--
24732 NEPTUNE AVE	Heptane	4.8E+00	3.7E+05	--	1E-05	--
24732 NEPTUNE AVE	Hexane	3.9E+00	3.7E+05	--	1E-05	--
24732 NEPTUNE AVE	Naphthalene	3.4E+00	1.6E+03	3.6E+01	2E-03	1E-07
24732 NEPTUNE AVE	Toluene	1.5E+01	2.6E+06	--	6E-06	--
24732 PANAMA AVE	1,2,4-Trimethylbenzene	2.9E+01	3.7E+03	--	8E-03	--
24732 PANAMA AVE	1,3,5-Trimethylbenzene	8.6E+00	3.7E+03	--	2E-03	--
24732 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	2.4E+01	2.6E+06	--	9E-06	--

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Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24732 PANAMA AVE	4-Ethyltoluene	1.9E+01	5.2E+04	--	4E-04	--
24732 PANAMA AVE	Benzene	1.4E+01	1.6E+04	4.2E+01	9E-04	3E-07
24732 PANAMA AVE	Carbon Disulfide	4.1E+00	3.7E+05	--	1E-05	--
24732 PANAMA AVE	Ethanol	2.0E+01	2.1E+06	--	1E-05	--
24732 PANAMA AVE	Methylene Chloride	7.4E+00	3.1E+05	1.2E+03	2E-05	6E-09
24732 PANAMA AVE	Naphthalene	1.7E+01	1.6E+03	3.6E+01	1E-02	5E-07
24732 PANAMA AVE	p/m-Xylene	1.4E+01	5.2E+04	--	3E-04	--
24732 PANAMA AVE	Toluene	2.3E+01	2.6E+06	--	9E-06	--
24732 RAVENNA AVE	1,2-Dichloropropane	1.6E+01	2.1E+03	1.2E+02	8E-03	1E-07
24732 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	5.1E+00	2.6E+06	--	2E-06	--
24732 RAVENNA AVE	2-Hexanone	2.1E+00	1.6E+04	--	1E-04	--
24732 RAVENNA AVE	Bromomethane	5.1E+00	2.6E+03	--	2E-03	--
24732 RAVENNA AVE	Chloroform	1.8E+02	5.1E+04	2.3E+02	4E-03	8E-07
24732 RAVENNA AVE	Isopropanol	1.3E+01	3.7E+06	--	4E-06	--
24732 RAVENNA AVE	Naphthalene	1.2E+00	1.6E+03	3.6E+01	8E-04	3E-08
24732 RAVENNA AVE	Tetrahydrofuran	3.6E+00	1.0E+06	--	4E-06	--
24732 RAVENNA AVE	Trichloroethene	1.5E+01	1.0E+03	2.2E+02	1E-02	7E-08
24733 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	2.6E+06	--	6E-06	--
24733 MARBELLA AVE	Benzene	1.8E+01	1.6E+04	4.2E+01	1E-03	4E-07
24733 MARBELLA AVE	Bromomethane	5.5E+00	2.6E+03	--	2E-03	--
24733 MARBELLA AVE	Carbon Disulfide	2.0E+01	3.7E+05	--	6E-05	--
24733 MARBELLA AVE	Ethanol	2.8E+01	2.1E+06	--	1E-05	--
24733 MARBELLA AVE	Naphthalene	8.9E-01	1.6E+03	3.6E+01	6E-04	3E-08
24733 MARBELLA AVE	Tetrachloroethene	3.8E+01	2.1E+04	2.1E+02	2E-03	2E-07
24733 MARBELLA AVE	Toluene	1.1E+01	2.6E+06	--	4E-06	--
24733 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.4E+00	2.6E+06	--	3E-06	--
24733 PANAMA AVE	Benzene	1.8E+01	1.6E+04	4.2E+01	1E-03	4E-07
24733 PANAMA AVE	Bromodichloromethane	1.1E+01	3.7E+04	3.3E+01	3E-04	3E-07
24733 PANAMA AVE	Chloroform	3.0E+02	5.1E+04	2.3E+02	6E-03	1E-06
24733 PANAMA AVE	Naphthalene	1.5E+01	1.6E+03	3.6E+01	1E-02	4E-07
24733 PANAMA AVE	Toluene	5.0E+00	2.6E+06	--	2E-06	--
24733 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	5.4E+00	2.6E+06	--	2E-06	--
24733 RAVENNA AVE	Chloroform	2.5E+01	5.1E+04	2.3E+02	5E-04	1E-07
24733 RAVENNA AVE	Naphthalene	1.0E+00	1.6E+03	3.6E+01	6E-04	3E-08
24733 RAVENNA AVE	Tetrachloroethene	2.3E+01	2.1E+04	2.1E+02	1E-03	1E-07
24735 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24735 NEPTUNE AVE	Chloroform	1.1E+01	5.1E+04	2.3E+02	2E-04	5E-08
24735 NEPTUNE AVE	Ethanol	2.5E+02	2.1E+06	--	1E-04	--
24735 NEPTUNE AVE	Isopropanol	1.6E+01	3.7E+06	--	4E-06	--
24735 NEPTUNE AVE	Naphthalene	1.8E+00	1.6E+03	3.6E+01	1E-03	5E-08
24736 RAVENNA AVE	1,2,4-Trimethylbenzene	1.7E+02	3.7E+03	--	5E-02	--
24736 RAVENNA AVE	1,3,5-Trimethylbenzene	3.6E+01	3.7E+03	--	1E-02	--
24736 RAVENNA AVE	4-Ethyltoluene	6.3E+01	5.2E+04	--	1E-03	--
24736 RAVENNA AVE	Benzene	4.7E+00	1.6E+04	4.2E+01	3E-04	1E-07
24736 RAVENNA AVE	Carbon Disulfide	2.6E+01	3.7E+05	--	7E-05	--
24736 RAVENNA AVE	Chloroform	2.2E+02	5.1E+04	2.3E+02	4E-03	1E-06
24736 RAVENNA AVE	Ethanol	2.6E+01	2.1E+06	--	1E-05	--
24736 RAVENNA AVE	Isopropanol	5.3E+01	3.7E+06	--	2E-05	--
24736 RAVENNA AVE	Naphthalene	4.0E+00	1.6E+03	3.6E+01	3E-03	1E-07
24736 RAVENNA AVE	Propylbenzene	1.4E+01	5.2E+05	--	3E-05	--
24737 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+01	2.6E+06	--	7E-06	--
24737 MARBELLA AVE	Benzene	9.1E+00	1.6E+04	4.2E+01	6E-04	2E-07
24737 MARBELLA AVE	Bromomethane	9.0E+00	2.6E+03	--	4E-03	--
24737 MARBELLA AVE	Carbon Disulfide	4.4E+00	3.7E+05	--	1E-05	--
24737 MARBELLA AVE	Ethanol	3.8E+01	2.1E+06	--	2E-05	--
24737 MARBELLA AVE	Hexane	4.1E+00	3.7E+05	--	1E-05	--
24737 MARBELLA AVE	Naphthalene	2.9E+00	1.6E+03	3.6E+01	2E-03	8E-08
24737 MARBELLA AVE	p/m-Xylene	1.2E+01	5.2E+04	--	2E-04	--
24737 MARBELLA AVE	Tetrachloroethene	5.1E+01	2.1E+04	2.1E+02	2E-03	3E-07
24737 MARBELLA AVE	Toluene	1.7E+01	2.6E+06	--	7E-06	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24738 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.1E+01	3.7E+03	--	3E-03	--
24738 NEPTUNE AVE	1,4-Dichlorobenzene	1.1E+02	4.2E+05	1.1E+02	3E-04	1E-06
24738 NEPTUNE AVE	Benzene	5.8E+00	1.6E+04	4.2E+01	4E-04	1E-07
24738 NEPTUNE AVE	Chloroform	3.4E+01	5.1E+04	2.3E+02	7E-04	2E-07
24738 NEPTUNE AVE	cis-1,2-Dichloroethene	3.6E+01	3.7E+03	--	1E-02	--
24738 NEPTUNE AVE	Cumene (Isopropylbenzene)	6.5E+00	2.1E+05	--	3E-05	--
24738 NEPTUNE AVE	Ethanol	1.9E+01	2.1E+06	--	9E-06	--
24738 NEPTUNE AVE	Isopropanol	7.7E+01	3.7E+06	--	2E-05	--
24738 NEPTUNE AVE	Naphthalene	2.0E+01	1.6E+03	3.6E+01	1E-02	6E-07
24738 NEPTUNE AVE	p/m-Xylene	6.1E+00	5.2E+04	--	1E-04	--
24738 NEPTUNE AVE	Tetrachloroethene	7.5E+00	2.1E+04	2.1E+02	4E-04	4E-08
24738 NEPTUNE AVE	Toluene	1.0E+01	2.6E+06	--	4E-06	--
24738 NEPTUNE AVE	Trichloroethene	2.4E+01	1.0E+03	2.2E+02	2E-02	1E-07
24738 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.7E+01	2.6E+06	--	7E-06	--
24738 PANAMA AVE	Benzene	1.2E+01	1.6E+04	4.2E+01	8E-04	3E-07
24738 PANAMA AVE	Chloroform	7.5E+00	5.1E+04	2.3E+02	2E-04	3E-08
24738 PANAMA AVE	Cumene (Isopropylbenzene)	4.0E+01	2.1E+05	--	2E-04	--
24738 PANAMA AVE	Cyclohexane	3.2E+01	3.1E+06	--	1E-05	--
24738 PANAMA AVE	Ethanol	1.4E+01	2.1E+06	--	7E-06	--
24738 PANAMA AVE	Ethylbenzene	1.7E+02	5.2E+05	4.9E+02	3E-04	4E-07
24738 PANAMA AVE	Hexane	4.6E+00	3.7E+05	--	1E-05	--
24738 PANAMA AVE	Isopropanol	1.7E+02	3.7E+06	--	5E-05	--
24738 PANAMA AVE	Naphthalene	1.4E+01	1.6E+03	3.6E+01	9E-03	4E-07
24738 PANAMA AVE	Propylbenzene	5.0E+01	5.2E+05	--	1E-04	--
24738 PANAMA AVE	Toluene	5.0E+00	2.6E+06	--	2E-06	--
24739 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.9E+01	3.7E+03	--	5E-03	--
24739 NEPTUNE AVE	1,3,5-Trimethylbenzene	5.3E+00	3.7E+03	--	2E-03	--
24739 NEPTUNE AVE	2,2,4-Trimethylpentane	7.1E+00	5.2E+05	--	1E-05	--
24739 NEPTUNE AVE	4-Ethyltoluene	1.1E+01	5.2E+04	--	2E-04	--
24739 NEPTUNE AVE	Benzene	3.9E+00	1.6E+04	4.2E+01	3E-04	9E-08
24739 NEPTUNE AVE	Chloroform	9.6E+00	5.1E+04	2.3E+02	2E-04	4E-08
24739 NEPTUNE AVE	Ethanol	1.7E+01	2.1E+06	--	8E-06	--
24739 NEPTUNE AVE	Ethylbenzene	4.6E+00	5.2E+05	4.9E+02	9E-06	1E-08
24739 NEPTUNE AVE	Heptane	1.0E+01	3.7E+05	--	3E-05	--
24739 NEPTUNE AVE	Hexane	1.2E+01	3.7E+05	--	3E-05	--
24739 NEPTUNE AVE	Methylene Chloride	4.4E+00	3.1E+05	1.2E+03	1E-05	4E-09
24739 NEPTUNE AVE	Naphthalene	4.7E+00	1.6E+03	3.6E+01	3E-03	1E-07
24739 NEPTUNE AVE	o-Xylene	9.0E+00	5.2E+04	--	2E-04	--
24739 NEPTUNE AVE	p/m-Xylene	2.3E+01	5.2E+04	--	4E-04	--
24739 NEPTUNE AVE	Toluene	1.3E+01	2.6E+06	--	5E-06	--
24739 PANAMA AVE	1,4-Dichlorobenzene	2.0E+00	4.2E+05	1.1E+02	5E-06	2E-08
24739 PANAMA AVE	Carbon Disulfide	7.0E+00	3.7E+05	--	2E-05	--
24739 PANAMA AVE	Heptane	7.0E+00	3.7E+05	--	2E-05	--
24739 PANAMA AVE	Hexane	7.6E+00	3.7E+05	--	2E-05	--
24739 PANAMA AVE	Naphthalene	9.1E-01	1.6E+03	3.6E+01	6E-04	3E-08
24739 PANAMA AVE	Toluene	2.6E+01	2.6E+06	--	1E-05	--
24739 PANAMA AVE	Trichloroethene	2.4E+00	1.0E+03	2.2E+02	2E-03	1E-08
24739 RAVENNA AVE	1,2,4-Trimethylbenzene	4.0E+01	3.7E+03	--	1E-02	--
24739 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	2.0E+01	2.6E+06	--	8E-06	--
24739 RAVENNA AVE	Bromomethane	4.7E+00	2.6E+03	--	2E-03	--
24739 RAVENNA AVE	Carbon Disulfide	3.7E+00	3.7E+05	--	1E-05	--
24739 RAVENNA AVE	Chloroform	6.5E+00	5.1E+04	2.3E+02	1E-04	3E-08
24739 RAVENNA AVE	Naphthalene	5.2E+00	1.6E+03	3.6E+01	3E-03	2E-07
24740 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	9.4E+00	2.6E+06	--	4E-06	--
24740 MARBELLA AVE	Benzene	1.4E+01	1.6E+04	4.2E+01	9E-04	3E-07
24740 MARBELLA AVE	Cumene (Isopropylbenzene)	7.4E+00	2.1E+05	--	4E-05	--
24740 MARBELLA AVE	Ethanol	2.2E+01	2.1E+06	--	1E-05	--
24740 MARBELLA AVE	Isopropanol	1.6E+01	3.7E+06	--	4E-06	--
24740 MARBELLA AVE	Naphthalene	1.3E+00	1.6E+03	3.6E+01	8E-04	4E-08
24740 MARBELLA AVE	Tetrachloroethene	2.9E+01	2.1E+04	2.1E+02	1E-03	1E-07

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24741 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	7.7E+00	2.6E+06	--	3E-06	--
24741 MARBELLA AVE	Benzene	6.9E+00	1.6E+04	4.2E+01	4E-04	2E-07
24741 MARBELLA AVE	Chloroform	3.8E+01	5.1E+04	2.3E+02	7E-04	2E-07
24741 MARBELLA AVE	Ethanol	2.4E+01	2.1E+06	--	1E-05	--
24741 MARBELLA AVE	Isopropanol	2.0E+01	3.7E+06	--	6E-06	--
24741 MARBELLA AVE	Naphthalene	3.6E-01	1.6E+03	3.6E+01	2E-04	1E-08
24741 MARBELLA AVE	Tetrachloroethene	9.5E+02	2.1E+04	2.1E+02	5E-02	5E-06
24741 MARBELLA AVE	Trichloroethene	1.6E+02	1.0E+03	2.2E+02	2E-01	7E-07
24743 RAVENNA AVE	Chloroform	1.3E+01	5.1E+04	2.3E+02	3E-04	6E-08
24743 RAVENNA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24743 RAVENNA AVE	Hexane	5.0E+00	3.7E+05	--	1E-05	--
24743 RAVENNA AVE	Naphthalene	5.1E+00	1.6E+03	3.6E+01	3E-03	1E-07
24744 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	8.8E+00	2.6E+06	--	3E-06	--
24744 MARBELLA AVE	Benzene	1.7E+01	1.6E+04	4.2E+01	1E-03	4E-07
24744 MARBELLA AVE	Bromomethane	9.5E+01	2.6E+03	--	4E-02	--
24744 MARBELLA AVE	Carbon Disulfide	4.5E+00	3.7E+05	--	1E-05	--
24744 MARBELLA AVE	Ethanol	9.4E+01	2.1E+06	--	5E-05	--
24744 MARBELLA AVE	Hexane	4.3E+00	3.7E+05	--	1E-05	--
24744 MARBELLA AVE	Isopropanol	1.2E+01	3.7E+06	--	3E-06	--
24744 MARBELLA AVE	Naphthalene	4.0E+01	1.6E+03	3.6E+01	3E-02	1E-06
24744 MARBELLA AVE	Tetrachloroethene	9.1E+01	2.1E+04	2.1E+02	4E-03	4E-07
24744 MARBELLA AVE	Toluene	5.3E+00	2.6E+06	--	2E-06	--
24744 MARBELLA AVE	Trichloroethene	6.7E+00	1.0E+03	2.2E+02	6E-03	3E-08
24748 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	3.2E+01	2.6E+06	--	1E-05	--
24748 RAVENNA AVE	Benzene	2.2E+01	1.6E+04	4.2E+01	1E-03	5E-07
24748 RAVENNA AVE	Bromodichloromethane	2.2E+01	3.7E+04	3.3E+01	6E-04	7E-07
24748 RAVENNA AVE	Chloroform	2.1E+02	5.1E+04	2.3E+02	4E-03	9E-07
24748 RAVENNA AVE	Cumene (Isopropylbenzene)	6.6E+00	2.1E+05	--	3E-05	--
24748 RAVENNA AVE	Ethanol	2.1E+01	2.1E+06	--	1E-05	--
24748 RAVENNA AVE	Naphthalene	3.6E+00	1.6E+03	3.6E+01	2E-03	1E-07
24749 RAVENNA AVE	1,2-Dichloroethane	4.7E+01	3.7E+03	5.9E+01	1E-02	8E-07
24749 RAVENNA AVE	2,2,4-Trimethylpentane	3.7E+03	5.2E+05	--	7E-03	--
24749 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24749 RAVENNA AVE	Benzene	1.0E+03	1.6E+04	4.2E+01	6E-02	2E-05
24749 RAVENNA AVE	Chloroform	5.8E+01	5.1E+04	2.3E+02	1E-03	3E-07
24749 RAVENNA AVE	cis-1,2-Dichloroethene	1.3E+02	3.7E+03	--	4E-02	--
24749 RAVENNA AVE	Cumene (Isopropylbenzene)	1.3E+01	2.1E+05	--	6E-05	--
24749 RAVENNA AVE	Cyclohexane	1.4E+04	3.1E+06	--	5E-03	--
24749 RAVENNA AVE	Ethanol	2.3E+01	2.1E+06	--	1E-05	--
24749 RAVENNA AVE	Ethylbenzene	2.0E+02	5.2E+05	4.9E+02	4E-04	4E-07
24749 RAVENNA AVE	Heptane	2.7E+03	3.7E+05	--	7E-03	--
24749 RAVENNA AVE	Hexane	4.1E+03	3.7E+05	--	1E-02	--
24749 RAVENNA AVE	Methyl-tert-Butyl Ether	4.4E+02	1.6E+06	4.7E+03	3E-04	9E-08
24749 RAVENNA AVE	Naphthalene	6.6E+00	1.6E+03	3.6E+01	4E-03	2E-07
24749 RAVENNA AVE	o-Xylene	3.4E+01	5.2E+04	--	7E-04	--
24749 RAVENNA AVE	p/m-Xylene	4.9E+01	5.2E+04	--	9E-04	--
24749 RAVENNA AVE	Toluene	2.6E+01	2.6E+06	--	1E-05	--
24752 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.9E+01	2.6E+06	--	7E-06	--
24752 RAVENNA AVE	Chloroform	7.7E+00	5.1E+04	2.3E+02	2E-04	3E-08
24752 RAVENNA AVE	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
24802 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	2.6E+06	--	4E-06	--
24802 PANAMA AVE	Benzene	1.8E+01	1.6E+04	4.2E+01	1E-03	4E-07
24802 PANAMA AVE	Ethanol	7.0E+01	2.1E+06	--	3E-05	--
24802 PANAMA AVE	Naphthalene	2.7E+00	1.6E+03	3.6E+01	2E-03	8E-08
24803 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	5.4E+00	2.6E+06	--	2E-06	--
24803 NEPTUNE AVE	Cyclohexane	1.0E+01	3.1E+06	--	3E-06	--
24803 NEPTUNE AVE	Ethanol	2.7E+01	2.1E+06	--	1E-05	--
24803 NEPTUNE AVE	Ethylbenzene	1.2E+01	5.2E+05	4.9E+02	2E-05	3E-08
24803 NEPTUNE AVE	Isopropanol	3.0E+01	3.7E+06	--	8E-06	--
24803 NEPTUNE AVE	Naphthalene	3.5E+00	1.6E+03	3.6E+01	2E-03	1E-07

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Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24803 NEPTUNE AVE	o-Xylene	5.0E+00	5.2E+04	--	1E-04	--
24803 NEPTUNE AVE	p/m-Xylene	1.8E+01	5.2E+04	--	4E-04	--
24803 NEPTUNE AVE	Toluene	6.8E+01	2.6E+06	--	3E-05	--
24803 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+00	2.6E+06	--	3E-06	--
24803 PANAMA AVE	Benzene	3.1E+01	1.6E+04	4.2E+01	2E-03	7E-07
24803 PANAMA AVE	Chloroform	2.3E+01	5.1E+04	2.3E+02	5E-04	1E-07
24803 PANAMA AVE	Naphthalene	3.0E+00	1.6E+03	3.6E+01	2E-03	8E-08
24809 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	2.6E+06	--	8E-06	--
24809 NEPTUNE AVE	Carbon Disulfide	1.6E+01	3.7E+05	--	4E-05	--
24809 NEPTUNE AVE	Ethanol	1.8E+01	2.1E+06	--	9E-06	--
24809 NEPTUNE AVE	Isopropanol	5.5E+01	3.7E+06	--	2E-05	--
24809 NEPTUNE AVE	Tetrahydrofuran	5.0E+00	1.0E+06	--	5E-06	--
24809 NEPTUNE AVE	Trichloroethene	4.3E+01	1.0E+03	2.2E+02	4E-02	2E-07
24809 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	7.3E+00	2.6E+06	--	3E-06	--
24809 PANAMA AVE	2-Hexanone	8.1E-01	1.6E+04	--	5E-05	--
24809 PANAMA AVE	Benzene	1.7E+01	1.6E+04	4.2E+01	1E-03	4E-07
24809 PANAMA AVE	Carbon Disulfide	1.2E+01	3.7E+05	--	3E-05	--
24809 PANAMA AVE	Chloroform	1.2E+01	5.1E+04	2.3E+02	2E-04	5E-08
24809 PANAMA AVE	Cumene (Isopropylbenzene)	1.0E+00	2.1E+05	--	5E-06	--
24809 PANAMA AVE	Ethanol	1.4E+01	2.1E+06	--	7E-06	--
24809 PANAMA AVE	Isopropanol	3.6E+00	3.7E+06	--	1E-06	--
24809 PANAMA AVE	Naphthalene	2.9E+00	1.6E+03	3.6E+01	2E-03	8E-08
24809 PANAMA AVE	Tetrachloroethene	7.0E+00	2.1E+04	2.1E+02	3E-04	3E-08
24809 PANAMA AVE	Tetrahydrofuran	3.7E+00	1.0E+06	--	4E-06	--
24812 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	2.6E+06	--	5E-06	--
24812 PANAMA AVE	Chloroform	8.3E+00	5.1E+04	2.3E+02	2E-04	4E-08
24812 PANAMA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24812 PANAMA AVE	Hexane	7.2E+00	3.7E+05	--	2E-05	--
24812 PANAMA AVE	Naphthalene	1.9E+00	1.6E+03	3.6E+01	1E-03	5E-08
24812 PANAMA AVE	Toluene	3.0E+01	2.6E+06	--	1E-05	--
24813 PANAMA AVE	1,2,4-Trimethylbenzene	2.7E+00	3.7E+03	--	7E-04	--
24813 PANAMA AVE	1,4-Dioxane	1.9E+01	1.6E+06	1.6E+02	1E-05	1E-07
24813 PANAMA AVE	2,2,4-Trimethylpentane	2.8E+00	5.2E+05	--	5E-06	--
24813 PANAMA AVE	Bromodichloromethane	6.5E+01	3.7E+04	3.3E+01	2E-03	2E-06
24813 PANAMA AVE	Carbon Disulfide	4.0E+00	3.7E+05	--	1E-05	--
24813 PANAMA AVE	Carbon Tetrachloride	2.2E+00	5.2E+04	2.9E+01	4E-05	8E-08
24813 PANAMA AVE	Chloroform	1.0E+03	5.1E+04	2.3E+02	2E-02	4E-06
24813 PANAMA AVE	Cyclohexane	5.3E+00	3.1E+06	--	2E-06	--
24813 PANAMA AVE	Dibromochloromethane	1.2E+01	3.7E+04	4.5E+01	3E-04	3E-07
24813 PANAMA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24813 PANAMA AVE	Ethylbenzene	7.8E+00	5.2E+05	4.9E+02	2E-05	2E-08
24813 PANAMA AVE	Isopropanol	1.4E+01	3.7E+06	--	4E-06	--
24813 PANAMA AVE	Methylene Chloride	4.0E+00	3.1E+05	1.2E+03	1E-05	3E-09
24813 PANAMA AVE	Naphthalene	4.6E+00	1.6E+03	3.6E+01	3E-03	1E-07
24813 PANAMA AVE	Tetrachloroethene	3.3E+00	2.1E+04	2.1E+02	2E-04	2E-08
24815 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	2.6E+06	--	5E-06	--
24815 NEPTUNE AVE	Benzene	6.2E+00	1.6E+04	4.2E+01	4E-04	2E-07
24815 NEPTUNE AVE	Carbon Disulfide	3.8E+00	3.7E+05	--	1E-05	--
24815 NEPTUNE AVE	Chloroform	1.0E+01	5.1E+04	2.3E+02	2E-04	4E-08
24815 NEPTUNE AVE	Naphthalene	5.4E+00	1.6E+03	3.6E+01	4E-03	2E-07
24815 NEPTUNE AVE	Tetrahydrofuran	4.0E+00	1.0E+06	--	4E-06	--
24815 NEPTUNE AVE	Toluene	1.6E+01	2.6E+06	--	6E-06	--
24818 PANAMA AVE	Chloroform	3.0E+01	5.1E+04	2.3E+02	6E-04	1E-07
24818 PANAMA AVE	Cyclohexane	4.5E+00	3.1E+06	--	1E-06	--
24818 PANAMA AVE	Naphthalene	4.1E+00	1.6E+03	3.6E+01	3E-03	1E-07
24818 PANAMA AVE	Toluene	7.3E+00	2.6E+06	--	3E-06	--
24819 PANAMA AVE	1,2,4-Trimethylbenzene	1.5E+01	3.7E+03	--	4E-03	--
24819 PANAMA AVE	1,3,5-Trimethylbenzene	6.6E+00	3.7E+03	--	2E-03	--
24819 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	2.6E+06	--	6E-06	--
24819 PANAMA AVE	4-Ethyltoluene	1.0E+01	5.2E+04	--	2E-04	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24819 PANAMA AVE	Benzene	4.9E+00	1.6E+04	4.2E+01	3E-04	1E-07
24819 PANAMA AVE	Bromodichloromethane	2.0E+00	3.7E+04	3.3E+01	6E-05	6E-08
24819 PANAMA AVE	Chloroform	2.6E+00	5.1E+04	2.3E+02	5E-05	1E-08
24819 PANAMA AVE	Ethanol	3.7E+01	2.1E+06	--	2E-05	--
24819 PANAMA AVE	Isopropanol	1.3E+01	3.7E+06	--	4E-06	--
24819 PANAMA AVE	Naphthalene	1.2E+01	1.6E+03	3.6E+01	8E-03	3E-07
24819 PANAMA AVE	p/m-Xylene	5.4E+00	5.2E+04	--	1E-04	--
24822 PANAMA AVE	2,2,4-Trimethylpentane	9.3E+00	5.2E+05	--	2E-05	--
24822 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.2E+01	2.6E+06	--	5E-06	--
24822 PANAMA AVE	Carbon Disulfide	2.9E+01	3.7E+05	--	8E-05	--
24822 PANAMA AVE	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
24822 PANAMA AVE	Ethylbenzene	1.8E+01	5.2E+05	4.9E+02	4E-05	4E-08
24822 PANAMA AVE	Heptane	5.8E+00	3.7E+05	--	2E-05	--
24822 PANAMA AVE	Hexane	6.3E+00	3.7E+05	--	2E-05	--
24822 PANAMA AVE	Naphthalene	3.6E+00	1.6E+03	3.6E+01	2E-03	1E-07
24822 PANAMA AVE	p/m-Xylene	5.4E+00	5.2E+04	--	1E-04	--
24822 PANAMA AVE	Propylbenzene	5.8E+00	5.2E+05	--	1E-05	--
24823 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	5.0E+00	2.6E+06	--	2E-06	--
24823 PANAMA AVE	Benzene	6.5E+00	1.6E+04	4.2E+01	4E-04	2E-07
24823 PANAMA AVE	Carbon Disulfide	1.4E+01	3.7E+05	--	4E-05	--
24823 PANAMA AVE	Ethanol	2.0E+01	2.1E+06	--	1E-05	--
24823 PANAMA AVE	Tetrahydrofuran	3.9E+00	1.0E+06	--	4E-06	--
24823 PANAMA AVE	Toluene	4.2E+00	2.6E+06	--	2E-06	--
24825 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	3.9E+00	2.6E+06	--	2E-06	--
24825 NEPTUNE AVE	Bromodichloromethane	2.1E+01	3.7E+04	3.3E+01	6E-04	6E-07
24825 NEPTUNE AVE	Chloroform	2.3E+02	5.1E+04	2.3E+02	5E-03	1E-06
24825 NEPTUNE AVE	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
24825 NEPTUNE AVE	Heptane	9.3E+00	3.7E+05	--	3E-05	--
24825 NEPTUNE AVE	Naphthalene	1.9E+01	1.6E+03	3.6E+01	1E-02	5E-07
24825 NEPTUNE AVE	Toluene	9.5E+00	2.6E+06	--	4E-06	--
24828 PANAMA AVE	2-Hexanone	1.9E+00	1.6E+04	--	1E-04	--
24828 PANAMA AVE	Ethanol	1.8E+01	2.1E+06	--	9E-06	--
24828 PANAMA AVE	Heptane	1.9E+01	3.7E+05	--	5E-05	--
24828 PANAMA AVE	Hexane	8.7E+00	3.7E+05	--	2E-05	--
24828 PANAMA AVE	Naphthalene	5.2E+00	1.6E+03	3.6E+01	3E-03	2E-07
24828 PANAMA AVE	Tetrahydrofuran	6.9E+00	1.0E+06	--	7E-06	--
24829 PANAMA AVE	1,2-Dichloroethane	5.6E+00	3.7E+03	5.9E+01	2E-03	1E-07
24829 PANAMA AVE	2,2,4-Trimethylpentane	1.4E+03	5.2E+05	--	3E-03	--
24829 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	2.6E+06	--	6E-06	--
24829 PANAMA AVE	2-Hexanone	1.9E+00	1.6E+04	--	1E-04	--
24829 PANAMA AVE	Benzene	2.8E+01	1.6E+04	4.2E+01	2E-03	7E-07
24829 PANAMA AVE	Carbon Disulfide	2.4E+01	3.7E+05	--	7E-05	--
24829 PANAMA AVE	Chloroform	1.6E+02	5.1E+04	2.3E+02	3E-03	7E-07
24829 PANAMA AVE	Cumene (Isopropylbenzene)	1.6E+01	2.1E+05	--	8E-05	--
24829 PANAMA AVE	Ethanol	3.3E+01	2.1E+06	--	2E-05	--
24829 PANAMA AVE	Ethylbenzene	9.8E+00	5.2E+05	4.9E+02	2E-05	2E-08
24829 PANAMA AVE	Isopropanol	5.0E+01	3.7E+06	--	1E-05	--
24829 PANAMA AVE	Methylene Chloride	9.3E+00	3.1E+05	1.2E+03	3E-05	8E-09
24829 PANAMA AVE	Naphthalene	1.0E+01	1.6E+03	3.6E+01	6E-03	3E-07
24829 PANAMA AVE	Propylbenzene	3.2E+01	5.2E+05	--	6E-05	--
24829 PANAMA AVE	Tetrahydrofuran	2.2E+00	1.0E+06	--	2E-06	--
24829 PANAMA AVE	Toluene	1.8E+01	2.6E+06	--	7E-06	--
24832 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	5.9E+00	2.6E+06	--	2E-06	--
24832 PANAMA AVE	Carbon Disulfide	2.6E+01	3.7E+05	--	7E-05	--
24832 PANAMA AVE	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
24832 PANAMA AVE	Hexane	4.3E+00	3.7E+05	--	1E-05	--
24832 PANAMA AVE	Naphthalene	2.8E+00	1.6E+03	3.6E+01	2E-03	8E-08
24832 PANAMA AVE	Toluene	1.3E+02	2.6E+06	--	5E-05	--
24833 PANAMA AVE	1,4-Dioxane	1.8E+01	1.6E+06	1.6E+02	1E-05	1E-07
24833 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+01	2.6E+06	--	3E-05	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24833 PANAMA AVE	2-Hexanone	3.6E+02	1.6E+04	--	2E-02	--
24833 PANAMA AVE	Carbon Disulfide	8.0E+00	3.7E+05	--	2E-05	--
24833 PANAMA AVE	Chloroform	1.6E+01	5.1E+04	2.3E+02	3E-04	7E-08
24833 PANAMA AVE	Ethanol	1.0E+02	2.1E+06	--	5E-05	--
24833 PANAMA AVE	Heptane	1.4E+01	3.7E+05	--	4E-05	--
24833 PANAMA AVE	Hexane	1.4E+01	3.7E+05	--	4E-05	--
24833 PANAMA AVE	Isopropanol	2.9E+01	3.7E+06	--	8E-06	--
24833 PANAMA AVE	Naphthalene	2.6E+01	1.6E+03	3.6E+01	2E-02	7E-07
24833 PANAMA AVE	Toluene	4.9E+01	2.6E+06	--	2E-05	--
24833 PANAMA AVE	Trichloroethene	2.3E+01	1.0E+03	2.2E+02	2E-02	1E-07
24838 PANAMA AVE	1,2,4-Trimethylbenzene	9.3E+00	3.7E+03	--	3E-03	--
24838 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	7.0E+00	2.6E+06	--	3E-06	--
24838 PANAMA AVE	4-Ethyltoluene	5.8E+00	5.2E+04	--	1E-04	--
24838 PANAMA AVE	Benzene	7.9E+00	1.6E+04	4.2E+01	5E-04	2E-07
24838 PANAMA AVE	Bromodichloromethane	2.4E+01	3.7E+04	3.3E+01	7E-04	7E-07
24838 PANAMA AVE	Carbon Disulfide	4.1E+00	3.7E+05	--	1E-05	--
24838 PANAMA AVE	Chloroform	2.4E+01	5.1E+04	2.3E+02	5E-04	1E-07
24838 PANAMA AVE	Cumene (Isopropylbenzene)	8.0E+00	2.1E+05	--	4E-05	--
24838 PANAMA AVE	Isopropanol	1.1E+02	3.7E+06	--	3E-05	--
24838 PANAMA AVE	Naphthalene	1.1E+01	1.6E+03	3.6E+01	7E-03	3E-07
24838 PANAMA AVE	p/m-Xylene	5.4E+00	5.2E+04	--	1E-04	--
24838 PANAMA AVE	Tetrachloroethene	7.4E+01	2.1E+04	2.1E+02	4E-03	4E-07
24904 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.2E+01	2.6E+06	--	5E-06	--
24904 NEPTUNE AVE	2-Hexanone	2.5E+00	1.6E+04	--	2E-04	--
24904 NEPTUNE AVE	Benzene	1.1E+01	1.6E+04	4.2E+01	7E-04	3E-07
24904 NEPTUNE AVE	Ethanol	2.8E+01	2.1E+06	--	1E-05	--
24904 NEPTUNE AVE	Heptane	1.4E+01	3.7E+05	--	4E-05	--
24904 NEPTUNE AVE	Hexane	7.5E+00	3.7E+05	--	2E-05	--
24904 NEPTUNE AVE	Isopropanol	5.6E+01	3.7E+06	--	2E-05	--
24904 NEPTUNE AVE	Naphthalene	4.3E+00	1.6E+03	3.6E+01	3E-03	1E-07
24912 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.3E+02	3.7E+03	--	4E-02	--
24912 NEPTUNE AVE	1,3,5-Trimethylbenzene	3.8E+01	3.7E+03	--	1E-02	--
24912 NEPTUNE AVE	2,2,4-Trimethylpentane	2.1E+02	5.2E+05	--	4E-04	--
24912 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	8.0E+00	2.6E+06	--	3E-06	--
24912 NEPTUNE AVE	4-Ethyltoluene	3.7E+01	5.2E+04	--	7E-04	--
24912 NEPTUNE AVE	Benzene	2.2E+01	1.6E+04	4.2E+01	1E-03	5E-07
24912 NEPTUNE AVE	Carbon Disulfide	1.3E+02	3.7E+05	--	4E-04	--
24912 NEPTUNE AVE	Chloroform	1.1E+01	5.1E+04	2.3E+02	2E-04	5E-08
24912 NEPTUNE AVE	Cumene (Isopropylbenzene)	2.8E+01	2.1E+05	--	1E-04	--
24912 NEPTUNE AVE	Cyclohexane	9.2E+00	3.1E+06	--	3E-06	--
24912 NEPTUNE AVE	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
24912 NEPTUNE AVE	Ethylbenzene	1.1E+02	5.2E+05	4.9E+02	2E-04	2E-07
24912 NEPTUNE AVE	Heptane	4.4E+01	3.7E+05	--	1E-04	--
24912 NEPTUNE AVE	Hexane	9.0E+00	3.7E+05	--	3E-05	--
24912 NEPTUNE AVE	Isopropanol	1.1E+01	3.7E+06	--	3E-06	--
24912 NEPTUNE AVE	Naphthalene	9.4E+00	1.6E+03	3.6E+01	6E-03	3E-07
24912 NEPTUNE AVE	p/m-Xylene	4.3E+01	5.2E+04	--	8E-04	--
24912 NEPTUNE AVE	Propylbenzene	8.9E+01	5.2E+05	--	2E-04	--
24912 NEPTUNE AVE	Tetrachloroethene	1.0E+01	2.1E+04	2.1E+02	5E-04	5E-08
24912 NEPTUNE AVE	Toluene	5.0E+00	2.6E+06	--	2E-06	--
301 244TH ST	1,4-Dioxane	5.2E+01	1.6E+06	1.6E+02	3E-05	3E-07
301 244TH ST	2-Butanone (Methyl Ethyl Ketone)	3.4E+00	2.6E+06	--	1E-06	--
301 244TH ST	Carbon Disulfide	1.6E+01	3.7E+05	--	4E-05	--
301 244TH ST	Ethanol	1.9E+01	2.1E+06	--	9E-06	--
301 244TH ST	Naphthalene	2.3E+00	1.6E+03	3.6E+01	2E-03	6E-08
301 244TH ST	Tetrachloroethene	1.5E+02	2.1E+04	2.1E+02	7E-03	7E-07
305 244TH ST	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	2.6E+06	--	8E-06	--
305 244TH ST	Benzene	4.6E+00	1.6E+04	4.2E+01	3E-04	1E-07
305 244TH ST	Carbon Disulfide	4.4E+00	3.7E+05	--	1E-05	--
305 244TH ST	Chloroform	8.2E+00	5.1E+04	2.3E+02	2E-04	4E-08

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
305 244TH ST	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
305 244TH ST	Heptane	4.9E+00	3.7E+05	--	1E-05	--
305 244TH ST	Hexane	7.8E+00	3.7E+05	--	2E-05	--
305 244TH ST	Naphthalene	5.5E+00	1.6E+03	3.6E+01	4E-03	2E-07
311 244TH ST	2-Butanone (Methyl Ethyl Ketone)	8.8E+00	2.6E+06	--	3E-06	--
311 244TH ST	Chloroform	1.8E+01	5.1E+04	2.3E+02	4E-04	8E-08
311 244TH ST	Naphthalene	3.1E+00	1.6E+03	3.6E+01	2E-03	9E-08
317 244TH ST	1,4-Dioxane	4.8E+01	1.6E+06	1.6E+02	3E-05	3E-07
317 244TH ST	2-Butanone (Methyl Ethyl Ketone)	3.6E+01	2.6E+06	--	1E-05	--
317 244TH ST	Bromodichloromethane	8.0E+01	3.7E+04	3.3E+01	2E-03	2E-06
317 244TH ST	Chloroform	8.4E+03	5.1E+04	2.3E+02	2E-01	4E-05
317 244TH ST	Ethanol	2.0E+01	2.1E+06	--	1E-05	--
317 244TH ST	Methylene Chloride	2.3E+01	3.1E+05	1.2E+03	7E-05	2E-08
317 244TH ST	Naphthalene	1.4E+00	1.6E+03	3.6E+01	9E-04	4E-08
317 244TH ST	Tetrachloroethene	1.6E+01	2.1E+04	2.1E+02	8E-04	8E-08
321 244TH ST	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	2.6E+06	--	6E-06	--
321 244TH ST	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
321 244TH ST	Naphthalene	7.0E+00	1.6E+03	3.6E+01	5E-03	2E-07
327 244TH ST	Chloroform	2.6E+01	5.1E+04	2.3E+02	5E-04	1E-07
327 244TH ST	Ethanol	1.4E+01	2.1E+06	--	7E-06	--
327 244TH ST	Naphthalene	1.1E+00	1.6E+03	3.6E+01	7E-04	3E-08
331 244TH ST	1,4-Dioxane	1.8E+01	1.6E+06	1.6E+02	1E-05	1E-07
331 244TH ST	2-Butanone (Methyl Ethyl Ketone)	3.5E+00	2.6E+06	--	1E-06	--
331 244TH ST	Benzene	1.3E+01	1.6E+04	4.2E+01	8E-04	3E-07
331 244TH ST	Cumene (Isopropylbenzene)	1.5E+01	2.1E+05	--	7E-05	--
331 244TH ST	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
331 244TH ST	Heptane	8.6E+00	3.7E+05	--	2E-05	--
331 244TH ST	Hexane	1.3E+01	3.7E+05	--	4E-05	--
331 244TH ST	Isopropanol	1.4E+01	3.7E+06	--	4E-06	--
331 244TH ST	Naphthalene	4.0E+00	1.6E+03	3.6E+01	3E-03	1E-07
331 244TH ST	Tetrachloroethene	1.8E+01	2.1E+04	2.1E+02	9E-04	9E-08
337 244TH ST	2-Butanone (Methyl Ethyl Ketone)	3.5E+00	2.6E+06	--	1E-06	--
337 244TH ST	Chloroform	6.0E+00	5.1E+04	2.3E+02	1E-04	3E-08
337 244TH ST	Ethanol	2.1E+01	2.1E+06	--	1E-05	--
337 244TH ST	Naphthalene	3.5E-01	1.6E+03	3.6E+01	2E-04	1E-08
337 244TH ST	Tetrahydrofuran	1.1E+01	1.0E+06	--	1E-05	--
341 244TH ST	2-Butanone (Methyl Ethyl Ketone)	8.5E+00	2.6E+06	--	3E-06	--
341 244TH ST	Benzene	4.4E+00	1.6E+04	4.2E+01	3E-04	1E-07
341 244TH ST	Carbon Disulfide	4.0E+01	3.7E+05	--	1E-04	--
341 244TH ST	Ethanol	1.6E+01	2.1E+06	--	8E-06	--
341 244TH ST	Isopropanol	4.3E+01	3.7E+06	--	1E-05	--
341 244TH ST	Naphthalene	4.8E+00	1.6E+03	3.6E+01	3E-03	1E-07
344 249TH ST	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	2.6E+06	--	4E-06	--
344 249TH ST	Carbon Disulfide	3.9E+00	3.7E+05	--	1E-05	--
344 249TH ST	Chloroform	3.1E+02	5.1E+04	2.3E+02	6E-03	1E-06
344 249TH ST	Methylene Chloride	9.7E+00	3.1E+05	1.2E+03	3E-05	8E-09
344 249TH ST	Naphthalene	2.1E+00	1.6E+03	3.6E+01	1E-03	6E-08
344 249TH ST	p/m-Xylene	7.1E+00	5.2E+04	--	1E-04	--
345 249TH ST	1,2,4-Trimethylbenzene	9.3E+00	3.7E+03	--	3E-03	--
345 249TH ST	2,2,4-Trimethylpentane	1.6E+01	5.2E+05	--	3E-05	--
345 249TH ST	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	2.6E+06	--	5E-06	--
345 249TH ST	Carbon Disulfide	1.0E+02	3.7E+05	--	3E-04	--
345 249TH ST	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
345 249TH ST	Naphthalene	1.4E+01	1.6E+03	3.6E+01	9E-03	4E-07
345 249TH ST	p/m-Xylene	7.8E+00	5.2E+04	--	2E-04	--
347 244TH ST	2-Butanone (Methyl Ethyl Ketone)	9.1E+00	2.6E+06	--	4E-06	--
347 244TH ST	Carbon Disulfide	5.7E+00	3.7E+05	--	2E-05	--
347 244TH ST	Chloroform	1.1E+01	5.1E+04	2.3E+02	2E-04	5E-08
347 244TH ST	Ethanol	1.0E+01	2.1E+06	--	5E-06	--
347 244TH ST	Hexane	4.8E+00	3.7E+05	--	1E-05	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
347 244TH ST	Naphthalene	2.1E+00	1.6E+03	3.6E+01	1E-03	6E-08
347 244TH ST	Tetrahydrofuran	4.9E+00	1.0E+06	--	5E-06	--
348 248TH ST	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	2.6E+06	--	8E-06	--
348 248TH ST	Benzene	2.4E+01	1.6E+04	4.2E+01	2E-03	6E-07
348 248TH ST	Bromomethane	5.7E+00	2.6E+03	--	2E-03	--
348 248TH ST	Carbon Disulfide	6.9E+00	3.7E+05	--	2E-05	--
348 248TH ST	Carbon Tetrachloride	7.1E+01	5.2E+04	2.9E+01	1E-03	3E-06
348 248TH ST	Chloroform	2.2E+01	5.1E+04	2.3E+02	4E-04	1E-07
348 248TH ST	Ethanol	7.0E+01	2.1E+06	--	3E-05	--
348 248TH ST	Methylene Chloride	6.1E+00	3.1E+05	1.2E+03	2E-05	5E-09
348 248TH ST	Naphthalene	2.1E+00	1.6E+03	3.6E+01	1E-03	6E-08
348 248TH ST	Toluene	1.2E+01	2.6E+06	--	5E-06	--
348 249TH ST	2-Butanone (Methyl Ethyl Ketone)	1.2E+01	2.6E+06	--	5E-06	--
348 249TH ST	Benzene	7.1E+00	1.6E+04	4.2E+01	5E-04	2E-07
348 249TH ST	Chloroform	4.1E+01	5.1E+04	2.3E+02	8E-04	2E-07
348 249TH ST	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
348 249TH ST	Naphthalene	4.9E+00	1.6E+03	3.6E+01	3E-03	1E-07
348 249TH ST	Toluene	3.7E+01	2.6E+06	--	1E-05	--
351 244TH ST	2-Butanone (Methyl Ethyl Ketone)	6.7E+00	2.6E+06	--	3E-06	--
351 244TH ST	Benzene	3.0E+01	1.6E+04	4.2E+01	2E-03	7E-07
351 244TH ST	Carbon Disulfide	8.3E+00	3.7E+05	--	2E-05	--
351 244TH ST	Carbon Tetrachloride	1.0E+01	5.2E+04	2.9E+01	2E-04	4E-07
351 244TH ST	Cumene (Isopropylbenzene)	7.8E+01	2.1E+05	--	4E-04	--
351 244TH ST	Ethanol	1.3E+01	2.1E+06	--	6E-06	--
351 244TH ST	Naphthalene	7.8E+00	1.6E+03	3.6E+01	5E-03	2E-07
351 244TH ST	Toluene	2.8E+01	2.6E+06	--	1E-05	--
352 249TH ST	1,2,4-Trimethylbenzene	1.3E+01	3.7E+03	--	4E-03	--
352 249TH ST	1,4-Dioxane	7.4E+01	1.6E+06	1.6E+02	5E-05	5E-07
352 249TH ST	2,2,4-Trimethylpentane	3.9E+01	5.2E+05	--	8E-05	--
352 249TH ST	2-Butanone (Methyl Ethyl Ketone)	1.2E+01	2.6E+06	--	5E-06	--
352 249TH ST	2-Hexanone	3.4E+00	1.6E+04	--	2E-04	--
352 249TH ST	4-Ethyltoluene	1.6E+01	5.2E+04	--	3E-04	--
352 249TH ST	Benzene	2.0E+01	1.6E+04	4.2E+01	1E-03	5E-07
352 249TH ST	Bromomethane	6.6E+00	2.6E+03	--	3E-03	--
352 249TH ST	Carbon Disulfide	1.8E+01	3.7E+05	--	5E-05	--
352 249TH ST	Chloroform	5.9E+01	5.1E+04	2.3E+02	1E-03	3E-07
352 249TH ST	Cyclohexane	1.3E+01	3.1E+06	--	4E-06	--
352 249TH ST	Ethanol	7.5E+01	2.1E+06	--	4E-05	--
352 249TH ST	Ethylbenzene	2.4E+01	5.2E+05	4.9E+02	5E-05	5E-08
352 249TH ST	Heptane	2.7E+01	3.7E+05	--	7E-05	--
352 249TH ST	Hexane	3.1E+01	3.7E+05	--	9E-05	--
352 249TH ST	Isopropanol	4.0E+00	3.7E+06	--	1E-06	--
352 249TH ST	Methyl-tert-Butyl Ether	1.4E+01	1.6E+06	4.7E+03	9E-06	3E-09
352 249TH ST	Naphthalene	3.0E+00	1.6E+03	3.6E+01	2E-03	8E-08
352 249TH ST	o-Xylene	2.8E+01	5.2E+04	--	5E-04	--
352 249TH ST	p/m-Xylene	9.3E+01	5.2E+04	--	2E-03	--
352 249TH ST	Tetrachloroethene	7.9E+02	2.1E+04	2.1E+02	4E-02	4E-06
352 249TH ST	Toluene	1.9E+02	2.6E+06	--	7E-05	--
353 249TH ST	2,2,4-Trimethylpentane	1.9E+01	5.2E+05	--	4E-05	--
353 249TH ST	2-Butanone (Methyl Ethyl Ketone)	4.4E+01	2.6E+06	--	2E-05	--
353 249TH ST	Benzene	4.0E+00	1.6E+04	4.2E+01	3E-04	1E-07
353 249TH ST	Carbon Disulfide	6.2E+00	3.7E+05	--	2E-05	--
353 249TH ST	Heptane	6.5E+00	3.7E+05	--	2E-05	--
353 249TH ST	Hexane	6.2E+00	3.7E+05	--	2E-05	--
353 249TH ST	Naphthalene	1.3E+00	1.6E+03	3.6E+01	8E-04	4E-08
353 249TH ST	Toluene	3.2E+01	2.6E+06	--	1E-05	--
354 248TH ST	2,2,4-Trimethylpentane	6.3E+01	5.2E+05	--	1E-04	--
354 248TH ST	2-Butanone (Methyl Ethyl Ketone)	1.7E+01	2.6E+06	--	7E-06	--
354 248TH ST	Benzene	6.4E+00	1.6E+04	4.2E+01	4E-04	2E-07
354 248TH ST	Chloroform	1.0E+01	5.1E+04	2.3E+02	2E-04	4E-08
354 248TH ST	Cyclohexane	2.2E+01	3.1E+06	--	7E-06	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
354 248TH ST	Ethanol	2.0E+01	2.1E+06	--	1E-05	--
354 248TH ST	Ethylbenzene	6.9E+00	5.2E+05	4.9E+02	1E-05	1E-08
354 248TH ST	Heptane	7.4E+00	3.7E+05	--	2E-05	--
354 248TH ST	Hexane	1.8E+01	3.7E+05	--	5E-05	--
354 248TH ST	Isopropanol	7.8E+00	3.7E+06	--	2E-06	--
354 248TH ST	Naphthalene	4.3E+00	1.6E+03	3.6E+01	3E-03	1E-07
354 248TH ST	p/m-Xylene	6.6E+00	5.2E+04	--	1E-04	--
354 248TH ST	Toluene	1.8E+01	2.6E+06	--	7E-06	--
357 244TH ST	2,2,4-Trimethylpentane	1.0E+01	5.2E+05	--	2E-05	--
357 244TH ST	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	2.6E+06	--	6E-06	--
357 244TH ST	Benzene	5.2E+00	1.6E+04	4.2E+01	3E-04	1E-07
357 244TH ST	Carbon Disulfide	8.4E+00	3.7E+05	--	2E-05	--
357 244TH ST	Cyclohexane	5.6E+00	3.1E+06	--	2E-06	--
357 244TH ST	Ethanol	3.0E+01	2.1E+06	--	1E-05	--
357 244TH ST	Ethylbenzene	5.4E+00	5.2E+05	4.9E+02	1E-05	1E-08
357 244TH ST	Heptane	1.0E+01	3.7E+05	--	3E-05	--
357 244TH ST	Hexane	6.7E+00	3.7E+05	--	2E-05	--
357 244TH ST	Methylene Chloride	4.4E+00	3.1E+05	1.2E+03	1E-05	4E-09
357 244TH ST	Naphthalene	5.6E+00	1.6E+03	3.6E+01	4E-03	2E-07
357 244TH ST	Propylbenzene	9.4E+00	5.2E+05	--	2E-05	--
357 244TH ST	Toluene	7.6E+00	2.6E+06	--	3E-06	--
357 249TH ST	1,4-Dioxane	1.9E+01	1.6E+06	1.6E+02	1E-05	1E-07
357 249TH ST	2-Butanone (Methyl Ethyl Ketone)	4.5E+00	2.6E+06	--	2E-06	--
357 249TH ST	Benzene	3.7E+01	1.6E+04	4.2E+01	2E-03	9E-07
357 249TH ST	Carbon Disulfide	2.5E+01	3.7E+05	--	7E-05	--
357 249TH ST	Chloroform	4.7E+01	5.1E+04	2.3E+02	9E-04	2E-07
357 249TH ST	Cumene (Isopropylbenzene)	6.8E+00	2.1E+05	--	3E-05	--
357 249TH ST	Ethanol	2.0E+01	2.1E+06	--	1E-05	--
357 249TH ST	Isopropanol	2.5E+01	3.7E+06	--	7E-06	--
357 249TH ST	Toluene	9.2E+00	2.6E+06	--	4E-06	--
358 249TH ST	Isopropanol	1.3E+01	3.7E+06	--	4E-06	--
358 249TH ST	Naphthalene	4.4E+00	1.6E+03	3.6E+01	3E-03	1E-07
358 249TH ST	p/m-Xylene	5.8E+00	5.2E+04	--	1E-04	--
358 249TH ST	Tetrahydrofuran	4.1E+01	1.0E+06	--	4E-05	--
358 249TH ST	Toluene	5.0E+00	2.6E+06	--	2E-06	--
358 249TH ST	trans-1,2-Dichloroethene	1.2E+01	3.1E+04	--	4E-04	--
360 248TH ST	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	2.6E+06	--	6E-06	--
360 248TH ST	Benzene	3.7E+01	1.6E+04	4.2E+01	2E-03	9E-07
360 248TH ST	Chloroform	3.0E+00	5.1E+04	2.3E+02	6E-05	1E-08
360 248TH ST	Cyclohexane	9.6E+02	3.1E+06	--	3E-04	--
360 248TH ST	Ethanol	1.1E+03	2.1E+06	--	5E-04	--
360 248TH ST	Ethylbenzene	9.6E+00	5.2E+05	4.9E+02	2E-05	2E-08
360 248TH ST	Heptane	3.1E+01	3.7E+05	--	9E-05	--
360 248TH ST	Hexane	1.2E+01	3.7E+05	--	3E-05	--
360 248TH ST	Naphthalene	1.1E+00	1.6E+03	3.6E+01	7E-04	3E-08
361 244TH ST	2-Butanone (Methyl Ethyl Ketone)	6.1E+00	2.6E+06	--	2E-06	--
361 244TH ST	Carbon Disulfide	8.0E+00	3.7E+05	--	2E-05	--
361 244TH ST	Cyclohexane	6.8E+03	3.1E+06	--	2E-03	--
361 244TH ST	Heptane	6.8E+01	3.7E+05	--	2E-04	--
361 244TH ST	Hexane	7.5E+03	3.7E+05	--	2E-02	--
361 244TH ST	Naphthalene	2.0E+00	1.6E+03	3.6E+01	1E-03	6E-08
362 249TH ST	2-Butanone (Methyl Ethyl Ketone)	6.5E+00	2.6E+06	--	3E-06	--
362 249TH ST	Benzene	6.6E+00	1.6E+04	4.2E+01	4E-04	2E-07
362 249TH ST	Ethanol	9.4E+00	2.1E+06	--	5E-06	--
362 249TH ST	Naphthalene	1.9E+00	1.6E+03	3.6E+01	1E-03	5E-08
362 249TH ST	Tetrachloroethene	1.3E+02	2.1E+04	2.1E+02	6E-03	6E-07
362 249TH ST	Toluene	5.3E+00	2.6E+06	--	2E-06	--
362 249TH ST	Trichloroethene	1.1E+01	1.0E+03	2.2E+02	1E-02	5E-08
363 249TH ST	Chloroform	6.6E+01	5.1E+04	2.3E+02	1E-03	3E-07
363 249TH ST	Ethanol	3.8E+02	2.1E+06	--	2E-04	--
363 249TH ST	Naphthalene	3.8E+00	1.6E+03	3.6E+01	2E-03	1E-07

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
363 249TH ST	Toluene	2.3E+01	2.6E+06	--	9E-06	--
364 248TH ST	2-Butanone (Methyl Ethyl Ketone)	1.4E+01	2.6E+06	--	5E-06	--
364 248TH ST	Benzene	3.2E+01	1.6E+04	4.2E+01	2E-03	8E-07
364 248TH ST	Cyclohexane	3.3E+01	3.1E+06	--	1E-05	--
364 248TH ST	Ethanol	1.5E+01	2.1E+06	--	7E-06	--
364 248TH ST	Ethylbenzene	7.4E+00	5.2E+05	4.9E+02	1E-05	2E-08
364 248TH ST	Isopropanol	4.1E+00	3.7E+06	--	1E-06	--
364 248TH ST	Naphthalene	3.5E+00	1.6E+03	3.6E+01	2E-03	1E-07
364 248TH ST	p/m-Xylene	5.4E+00	5.2E+04	--	1E-04	--
364 248TH ST	Toluene	4.3E+00	2.6E+06	--	2E-06	--
367 244TH ST	2-Butanone (Methyl Ethyl Ketone)	6.4E+00	2.6E+06	--	3E-06	--
367 244TH ST	Benzene	2.2E+01	1.6E+04	4.2E+01	1E-03	5E-07
367 244TH ST	Carbon Disulfide	4.8E+00	3.7E+05	--	1E-05	--
367 244TH ST	Ethanol	1.8E+01	2.1E+06	--	9E-06	--
367 249TH ST	1,2,4-Trimethylbenzene	6.5E+00	3.7E+03	--	2E-03	--
367 249TH ST	2-Butanone (Methyl Ethyl Ketone)	2.5E+01	2.6E+06	--	1E-05	--
367 249TH ST	Benzene	4.6E+00	1.6E+04	4.2E+01	3E-04	1E-07
367 249TH ST	Bromomethane	9.3E+00	2.6E+03	--	4E-03	--
367 249TH ST	Chloroform	3.7E+01	5.1E+04	2.3E+02	7E-04	2E-07
367 249TH ST	Ethanol	1.9E+01	2.1E+06	--	9E-06	--
367 249TH ST	Ethylbenzene	8.9E+00	5.2E+05	4.9E+02	2E-05	2E-08
367 249TH ST	Hexane	5.1E+00	3.7E+05	--	1E-05	--
367 249TH ST	Isopropanol	2.6E+01	3.7E+06	--	7E-06	--
367 249TH ST	Methylene Chloride	6.0E+00	3.1E+05	1.2E+03	2E-05	5E-09
367 249TH ST	Naphthalene	6.9E+00	1.6E+03	3.6E+01	4E-03	2E-07
367 249TH ST	Toluene	6.2E+00	2.6E+06	--	2E-06	--
368 249TH ST	Chloroform	1.0E+01	5.1E+04	2.3E+02	2E-04	4E-08
368 249TH ST	Ethanol	2.7E+01	2.1E+06	--	1E-05	--
368 249TH ST	Heptane	5.6E+00	3.7E+05	--	2E-05	--
368 249TH ST	Hexane	7.3E+00	3.7E+05	--	2E-05	--
368 249TH ST	Isopropanol	3.5E+01	3.7E+06	--	1E-05	--
368 249TH ST	Naphthalene	4.2E+00	1.6E+03	3.6E+01	3E-03	1E-07
368 249TH ST	Tetrachloroethene	4.5E+01	2.1E+04	2.1E+02	2E-03	2E-07
368 249TH ST	Toluene	5.0E+00	2.6E+06	--	2E-06	--
373 249TH ST	2,2,4-Trimethylpentane	9.5E+00	5.2E+05	--	2E-05	--
373 249TH ST	Ethanol	1.5E+01	2.1E+06	--	7E-06	--
373 249TH ST	Naphthalene	1.6E+00	1.6E+03	3.6E+01	1E-03	5E-08
373 249TH ST	Toluene	7.2E+01	2.6E+06	--	3E-05	--
374 248TH ST	1,2,4-Trimethylbenzene	2.5E+01	3.7E+03	--	7E-03	--
374 248TH ST	1,3,5-Trimethylbenzene	6.9E+00	3.7E+03	--	2E-03	--
374 248TH ST	2,2,4-Trimethylpentane	6.4E+00	5.2E+05	--	1E-05	--
374 248TH ST	2-Butanone (Methyl Ethyl Ketone)	4.1E+00	2.6E+06	--	2E-06	--
374 248TH ST	Benzene	4.7E+00	1.6E+04	4.2E+01	3E-04	1E-07
374 248TH ST	Chloroform	5.5E+01	5.1E+04	2.3E+02	1E-03	2E-07
374 248TH ST	Ethanol	1.0E+01	2.1E+06	--	5E-06	--
374 248TH ST	Ethylbenzene	9.4E+00	5.2E+05	4.9E+02	2E-05	2E-08
374 248TH ST	Heptane	5.9E+00	3.7E+05	--	2E-05	--
374 248TH ST	Hexane	5.6E+00	3.7E+05	--	2E-05	--
374 248TH ST	Isopropanol	1.6E+01	3.7E+06	--	4E-06	--
374 248TH ST	Naphthalene	1.3E+01	1.6E+03	3.6E+01	8E-03	4E-07
374 248TH ST	o-Xylene	7.1E+00	5.2E+04	--	1E-04	--
374 249TH ST	2-Butanone (Methyl Ethyl Ketone)	5.0E+00	2.6E+06	--	2E-06	--
374 249TH ST	Bromodichloromethane	1.2E+01	3.7E+04	3.3E+01	3E-04	4E-07
374 249TH ST	Chloroform	2.1E+02	5.1E+04	2.3E+02	4E-03	9E-07
374 249TH ST	Ethanol	5.0E+01	2.1E+06	--	2E-05	--
374 249TH ST	Naphthalene	1.7E+00	1.6E+03	3.6E+01	1E-03	5E-08
377 244TH ST	2-Butanone (Methyl Ethyl Ketone)	7.4E+00	2.6E+06	--	3E-06	--
377 244TH ST	Benzene	9.9E+00	1.6E+04	4.2E+01	6E-04	2E-07
377 244TH ST	Carbon Disulfide	4.9E+00	3.7E+05	--	1E-05	--
377 244TH ST	Ethanol	2.1E+01	2.1E+06	--	1E-05	--
377 249TH ST	1,2,4-Trimethylbenzene	6.9E+00	3.7E+03	--	2E-03	--

Appendix E
Detailed Risk Calculations

Table E-5
COC-Specific Risk and Hazard Results, Residential Properties
Onsite Resident
Sub-Slab Soil Vapor to Indoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Resident (EF350)			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
377 249TH ST	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	2.6E+06	--	6E-06	--
377 249TH ST	Chloroform	1.5E+02	5.1E+04	2.3E+02	3E-03	7E-07
377 249TH ST	Ethanol	1.1E+01	2.1E+06	--	5E-06	--
377 249TH ST	Heptane	1.0E+01	3.7E+05	--	3E-05	--
377 249TH ST	Hexane	4.6E+00	3.7E+05	--	1E-05	--
377 249TH ST	Naphthalene	1.2E+01	1.6E+03	3.6E+01	8E-03	3E-07
377 249TH ST	p/m-Xylene	1.2E+01	5.2E+04	--	2E-04	--
378 249TH ST	1,2,4-Trimethylbenzene	2.4E+01	3.7E+03	--	7E-03	--
378 249TH ST	1,3,5-Trimethylbenzene	7.6E+00	3.7E+03	--	2E-03	--
378 249TH ST	1,4-Dioxane	2.2E+01	1.6E+06	1.6E+02	1E-05	1E-07
378 249TH ST	2,2,4-Trimethylpentane	1.4E+05	5.2E+05	--	3E-01	--
378 249TH ST	4-Ethyltoluene	2.3E+01	5.2E+04	--	4E-04	--
378 249TH ST	Benzene	6.2E+04	1.6E+04	4.2E+01	4E+00	2E-03
378 249TH ST	Chloroform	6.1E+00	5.1E+04	2.3E+02	1E-04	3E-08
378 249TH ST	Cyclohexane	1.2E+04	3.1E+06	--	4E-03	--
378 249TH ST	Ethylbenzene	5.3E+03	5.2E+05	4.9E+02	1E-02	1E-05
378 249TH ST	Heptane	3.5E+03	3.7E+05	--	1E-02	--
378 249TH ST	Hexane	4.1E+03	3.7E+05	--	1E-02	--
378 249TH ST	Isopropanol	2.8E+03	3.7E+06	--	8E-04	--
378 249TH ST	Methylene Chloride	2.8E+04	3.1E+05	1.2E+03	9E-02	2E-05
378 249TH ST	Naphthalene	2.6E+02	1.6E+03	3.6E+01	2E-01	7E-06
378 249TH ST	o-Xylene	1.8E+01	5.2E+04	--	4E-04	--
378 249TH ST	p/m-Xylene	3.4E+03	5.2E+04	--	7E-02	--
378 249TH ST	Toluene	1.8E+03	2.6E+06	--	7E-04	--
383 249TH ST	1,2,4-Trimethylbenzene	5.5E+02	3.7E+03	--	2E-01	--
383 249TH ST	1,3,5-Trimethylbenzene	1.5E+02	3.7E+03	--	4E-02	--
383 249TH ST	2,2,4-Trimethylpentane	8.5E+00	5.2E+05	--	2E-05	--
383 249TH ST	2-Butanone (Methyl Ethyl Ketone)	7.5E+00	2.6E+06	--	3E-06	--
383 249TH ST	4-Ethyltoluene	3.3E+02	5.2E+04	--	6E-03	--
383 249TH ST	Benzene	5.4E+00	1.6E+04	4.2E+01	4E-04	1E-07
383 249TH ST	Chloroform	2.5E+01	5.1E+04	2.3E+02	5E-04	1E-07
383 249TH ST	Cumene (Isopropylbenzene)	3.2E+01	2.1E+05	--	2E-04	--
383 249TH ST	Ethanol	1.2E+01	2.1E+06	--	6E-06	--
383 249TH ST	Ethylbenzene	6.9E+01	5.2E+05	4.9E+02	1E-04	1E-07
383 249TH ST	Methylene Chloride	5.8E+00	3.1E+05	1.2E+03	2E-05	5E-09
383 249TH ST	Naphthalene	8.1E+01	1.6E+03	3.6E+01	5E-02	2E-06
383 249TH ST	o-Xylene	7.3E+01	5.2E+04	--	1E-03	--
383 249TH ST	p/m-Xylene	2.3E+02	5.2E+04	--	4E-03	--
383 249TH ST	Propylbenzene	8.1E+01	5.2E+05	--	2E-04	--
383 249TH ST	Tetrachloroethene	5.7E+01	2.1E+04	2.1E+02	3E-03	3E-07
383 249TH ST	Toluene	1.5E+01	2.6E+06	--	6E-06	--
402 249TH ST	Chloroform	6.2E+01	5.1E+04	2.3E+02	1E-03	3E-07
402 249TH ST	Ethanol	4.6E+01	2.1E+06	--	2E-05	--
402 249TH ST	Isopropanol	1.0E+01	3.7E+06	--	3E-06	--
402 249TH ST	Naphthalene	3.3E+00	1.6E+03	3.6E+01	2E-03	9E-08
402 249TH ST	trans-1,2-Dichloroethene	6.2E+00	3.1E+04	--	2E-04	--
408 249TH ST	1,4-Dioxane	2.7E+01	1.6E+06	1.6E+02	2E-05	2E-07
408 249TH ST	Carbon Disulfide	3.9E+00	3.7E+05	--	1E-05	--
408 249TH ST	Ethanol	8.9E+00	2.1E+06	--	4E-06	--
412 249TH ST	Ethanol	9.5E+00	2.1E+06	--	5E-06	--
412 249TH ST	Ethylbenzene	6.5E+00	5.2E+05	4.9E+02	1E-05	1E-08
412 249TH ST	Naphthalene	9.1E+00	1.6E+03	3.6E+01	6E-03	3E-07
412 249TH ST	p/m-Xylene	5.2E+00	5.2E+04	--	1E-04	--
412 249TH ST	Tetrachloroethene	3.0E+01	2.1E+04	2.1E+02	1E-03	2E-07
412 249TH ST	Toluene	1.2E+01	2.6E+06	--	5E-06	--

Notes:

" -- " not applicable; COC = Constituent of Concern

EPC = exposure point concentration; EF350 = exposure frequency of 350 days per year

SSCG = Site-specific cleanup goals; SSCGnc = based on noncancer effects; SSCGc = based on cancer effects

Bold + Shaded if COC-specific noncancer hazard >1 or COC-specific cancer risk >1E-06

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24401 MARBELLA AVE	1,2-Dichloroethane	4.5E+00	4.4E+06	8.5E+05	1E-06	5E-11
24401 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.4E+01	1.1E+09	--	1E-08	--
24401 MARBELLA AVE	Benzene	5.9E+00	3.2E+07	1.0E+06	2E-07	6E-11
24401 MARBELLA AVE	Chloroform	4.2E+00	9.0E+07	4.9E+06	5E-08	9E-12
24401 MARBELLA AVE	Ethanol	1.5E+01	1.9E+08	--	8E-08	--
24401 MARBELLA AVE	Methylene Chloride	4.0E+00	6.1E+08	2.8E+07	7E-09	1E-12
24401 MARBELLA AVE	Naphthalene	1.3E+00	2.3E+05	6.3E+04	6E-06	2E-10
24401 MARBELLA AVE	Tetrachloroethene	1.7E+02	5.5E+07	6.6E+06	3E-06	3E-10
24401 MARBELLA AVE	Toluene	5.4E+00	3.7E+09	--	2E-09	--
24402 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.9E+01	2.3E+06	--	8E-06	--
24402 NEPTUNE AVE	1,3,5-Trimethylbenzene	6.6E+00	2.3E+06	--	3E-06	--
24402 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	1.1E+09	--	1E-08	--
24402 NEPTUNE AVE	4-Ethyltoluene	1.3E+01	2.5E+07	--	5E-07	--
24402 NEPTUNE AVE	Benzene	5.1E+00	3.2E+07	1.0E+06	2E-07	5E-11
24402 NEPTUNE AVE	Ethanol	1.5E+01	1.9E+08	--	8E-08	--
24402 NEPTUNE AVE	Hexane	4.3E+00	1.7E+09	--	3E-09	--
24402 NEPTUNE AVE	Naphthalene	2.7E+00	2.3E+05	6.3E+04	1E-05	4E-10
24402 NEPTUNE AVE	o-Xylene	1.0E+01	5.9E+07	--	2E-07	--
24402 NEPTUNE AVE	p/m-Xylene	2.3E+01	5.9E+07	--	4E-07	--
24402 NEPTUNE AVE	Toluene	4.3E+01	3.7E+09	--	1E-08	--
24402 PANAMA AVE	Chloroform	7.2E+00	9.0E+07	4.9E+06	8E-08	2E-11
24402 PANAMA AVE	Cyclohexane	9.9E+00	1.8E+10	--	6E-10	--
24402 PANAMA AVE	Naphthalene	1.1E+01	2.3E+05	6.3E+04	5E-05	2E-09
24402 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+00	1.1E+09	--	6E-09	--
24402 RAVENNA AVE	Bromodichloromethane	9.0E+00	7.2E+07	7.8E+05	1E-07	1E-10
24402 RAVENNA AVE	Chloroform	2.4E+02	9.0E+07	4.9E+06	3E-06	5E-10
24402 RAVENNA AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24402 RAVENNA AVE	Hexane	2.0E+00	1.7E+09	--	1E-09	--
24402 RAVENNA AVE	Isopropanol	1.7E+03	5.7E+08	--	3E-06	--
24402 RAVENNA AVE	Naphthalene	1.0E+00	2.3E+05	6.3E+04	4E-06	2E-10
24402 RAVENNA AVE	Toluene	3.0E+00	3.7E+09	--	8E-10	--
24403 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.1E+01	1.1E+09	--	2E-08	--
24403 NEPTUNE AVE	Carbon Disulfide	2.1E+01	1.4E+09	--	2E-08	--
24403 NEPTUNE AVE	Chloroform	7.1E+00	9.0E+07	4.9E+06	8E-08	2E-11
24403 NEPTUNE AVE	Ethanol	1.8E+01	1.9E+08	--	9E-08	--
24403 NEPTUNE AVE	Naphthalene	3.9E+00	2.3E+05	6.3E+04	2E-05	6E-10
24403 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	3.0E+01	1.1E+09	--	3E-08	--
24403 RAVENNA AVE	Benzene	5.9E+00	3.2E+07	1.0E+06	2E-07	6E-11
24403 RAVENNA AVE	Carbon Disulfide	4.7E+00	1.4E+09	--	3E-09	--
24403 RAVENNA AVE	Naphthalene	6.1E+00	2.3E+05	6.3E+04	3E-05	1E-09
24403 RAVENNA AVE	Toluene	3.4E+00	3.7E+09	--	9E-10	--
24405 MARBELLA AVE	1,4-Dioxane	2.5E+01	1.3E+08	1.6E+05	2E-07	2E-09
24405 MARBELLA AVE	Isopropanol	1.1E+01	5.7E+08	--	2E-08	--
24405 MARBELLA AVE	Naphthalene	6.3E+00	2.3E+05	6.3E+04	3E-05	1E-09
24405 MARBELLA AVE	Tetrachloroethene	1.2E+02	5.5E+07	6.6E+06	2E-06	2E-10
24406 MARBELLA AVE	2,2,4-Trimethylpentane	7.5E+00	6.5E+08	--	1E-08	--
24406 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24406 MARBELLA AVE	Benzene	8.7E+00	3.2E+07	1.0E+06	3E-07	9E-11
24406 MARBELLA AVE	Chloroform	6.4E+00	9.0E+07	4.9E+06	7E-08	1E-11
24406 MARBELLA AVE	Cumene (Isopropylbenzene)	8.8E+00	1.5E+09	--	6E-09	--
24406 MARBELLA AVE	Cyclohexane	8.9E+01	1.8E+10	--	5E-09	--
24406 MARBELLA AVE	Ethanol	2.0E+01	1.9E+08	--	1E-07	--
24406 MARBELLA AVE	Ethylbenzene	1.4E+01	6.3E+08	7.0E+06	2E-08	2E-11
24406 MARBELLA AVE	Heptane	7.0E+00	2.3E+09	--	3E-09	--
24406 MARBELLA AVE	Hexane	4.7E+00	1.7E+09	--	3E-09	--
24406 MARBELLA AVE	Isopropanol	2.9E+01	5.7E+08	--	5E-08	--
24406 MARBELLA AVE	Naphthalene	1.8E+00	2.3E+05	6.3E+04	8E-06	3E-10
24406 MARBELLA AVE	p/m-Xylene	1.2E+01	5.9E+07	--	2E-07	--
24406 MARBELLA AVE	Toluene	2.2E+01	3.7E+09	--	6E-09	--
24406 NEPTUNE AVE	1,2,4-Trimethylbenzene	9.1E+00	2.3E+06	--	4E-06	--

**Appendix E
Detailed Risk Calculations**

**Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air**

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24406 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.1E+02	1.1E+09	--	2E-07	--
24406 NEPTUNE AVE	2-Hexanone	2.8E+00	7.9E+06	--	4E-07	--
24406 NEPTUNE AVE	4-Ethyltoluene	6.1E+00	2.5E+07	--	3E-07	--
24406 NEPTUNE AVE	Benzene	7.6E+00	3.2E+07	1.0E+06	2E-07	7E-11
24406 NEPTUNE AVE	Carbon Disulfide	1.8E+01	1.4E+09	--	1E-08	--
24406 NEPTUNE AVE	Carbon Tetrachloride	8.8E+01	1.6E+08	1.1E+06	6E-07	8E-10
24406 NEPTUNE AVE	Chloroform	4.2E+01	9.0E+07	4.9E+06	5E-07	9E-11
24406 NEPTUNE AVE	Ethanol	1.2E+03	1.9E+08	--	6E-06	--
24406 NEPTUNE AVE	Ethylbenzene	6.5E+00	6.3E+08	7.0E+06	1E-08	9E-12
24406 NEPTUNE AVE	Isopropanol	2.0E+02	5.7E+08	--	4E-07	--
24406 NEPTUNE AVE	Methylene Chloride	7.3E+01	6.1E+08	2.8E+07	1E-07	3E-11
24406 NEPTUNE AVE	Naphthalene	8.0E+01	2.3E+05	6.3E+04	4E-04	1E-08
24406 NEPTUNE AVE	o-Xylene	6.0E+00	5.9E+07	--	1E-07	--
24406 NEPTUNE AVE	p/m-Xylene	1.3E+01	5.9E+07	--	2E-07	--
24406 NEPTUNE AVE	Tetrahydrofuran	7.7E+01	4.9E+08	--	2E-07	--
24406 NEPTUNE AVE	Toluene	9.4E+00	3.7E+09	--	3E-09	--
24406 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24406 PANAMA AVE	Carbon Disulfide	4.5E+00	1.4E+09	--	3E-09	--
24406 PANAMA AVE	Chloroform	6.4E+00	9.0E+07	4.9E+06	7E-08	1E-11
24406 PANAMA AVE	Cumene (Isopropylbenzene)	8.7E+00	1.5E+09	--	6E-09	--
24406 PANAMA AVE	Ethanol	4.2E+02	1.9E+08	--	2E-06	--
24406 PANAMA AVE	Hexane	4.1E+00	1.7E+09	--	3E-09	--
24406 PANAMA AVE	Isopropanol	2.4E+01	5.7E+08	--	4E-08	--
24406 PANAMA AVE	Naphthalene	6.0E+00	2.3E+05	6.3E+04	3E-05	1E-09
24406 PANAMA AVE	Toluene	6.6E+00	3.7E+09	--	2E-09	--
24406 PANAMA AVE	Trichloroethene	6.7E+01	2.0E+06	6.7E+06	3E-05	1E-10
24406 RAVENNA AVE	Naphthalene	1.2E+00	2.3E+05	6.3E+04	5E-06	2E-10
24409 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.7E+01	1.1E+09	--	2E-08	--
24409 NEPTUNE AVE	Carbon Disulfide	5.7E+00	1.4E+09	--	4E-09	--
24409 NEPTUNE AVE	Chloroform	1.7E+00	9.0E+07	4.9E+06	2E-08	4E-12
24409 NEPTUNE AVE	Ethanol	1.9E+01	1.9E+08	--	1E-07	--
24409 NEPTUNE AVE	Naphthalene	4.7E+00	2.3E+05	6.3E+04	2E-05	7E-10
24409 RAVENNA AVE	1,4-Dioxane	3.6E+01	1.3E+08	1.6E+05	3E-07	2E-09
24409 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	3.4E+00	1.1E+09	--	3E-09	--
24409 RAVENNA AVE	Chloroform	9.8E+00	9.0E+07	4.9E+06	1E-07	2E-11
24409 RAVENNA AVE	Naphthalene	1.5E+00	2.3E+05	6.3E+04	7E-06	2E-10
24410 PANAMA AVE	1,2,4-Trimethylbenzene	7.9E+00	2.3E+06	--	3E-06	--
24410 PANAMA AVE	4-Ethyltoluene	6.2E+00	2.5E+07	--	3E-07	--
24410 PANAMA AVE	Chloroform	4.2E+00	9.0E+07	4.9E+06	5E-08	9E-12
24410 PANAMA AVE	Ethanol	1.7E+01	1.9E+08	--	9E-08	--
24410 PANAMA AVE	Naphthalene	1.0E+00	2.3E+05	6.3E+04	4E-06	2E-10
24410 PANAMA AVE	p/m-Xylene	7.5E+00	5.9E+07	--	1E-07	--
24410 PANAMA AVE	Tetrachloroethene	1.9E+00	5.5E+07	6.6E+06	3E-08	3E-12
24411 MARBELLA AVE	1,2,4-Trimethylbenzene	1.5E+01	2.3E+06	--	7E-06	--
24411 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24411 MARBELLA AVE	4-Ethyltoluene	1.3E+01	2.5E+07	--	5E-07	--
24411 MARBELLA AVE	Benzene	8.4E+00	3.2E+07	1.0E+06	3E-07	8E-11
24411 MARBELLA AVE	Carbon Disulfide	6.4E+00	1.4E+09	--	4E-09	--
24411 MARBELLA AVE	Ethanol	2.8E+01	1.9E+08	--	1E-07	--
24411 MARBELLA AVE	Ethylbenzene	7.5E+00	6.3E+08	7.0E+06	1E-08	1E-11
24411 MARBELLA AVE	Hexane	6.1E+00	1.7E+09	--	4E-09	--
24411 MARBELLA AVE	Isopropanol	2.7E+01	5.7E+08	--	5E-08	--
24411 MARBELLA AVE	Naphthalene	2.5E+01	2.3E+05	6.3E+04	1E-04	4E-09
24411 MARBELLA AVE	o-Xylene	1.3E+01	5.9E+07	--	2E-07	--
24411 MARBELLA AVE	p/m-Xylene	2.7E+01	5.9E+07	--	5E-07	--
24411 MARBELLA AVE	Tetrachloroethene	1.9E+01	5.5E+07	6.6E+06	3E-07	3E-11
24411 MARBELLA AVE	Toluene	4.8E+01	3.7E+09	--	1E-08	--
24411 MARBELLA AVE	Trichloroethene	3.7E+01	2.0E+06	6.7E+06	2E-05	6E-11
24411 PANAMA AVE	1,2,4-Trimethylbenzene	3.2E+01	2.3E+06	--	1E-05	--
24411 PANAMA AVE	1,3,5-Trimethylbenzene	1.2E+01	2.3E+06	--	5E-06	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24411 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	5.0E+00	1.1E+09	--	4E-09	--
24411 PANAMA AVE	4-Ethyltoluene	2.9E+01	2.5E+07	--	1E-06	--
24411 PANAMA AVE	Benzene	3.4E+01	3.2E+07	1.0E+06	1E-06	3E-10
24411 PANAMA AVE	Carbon Disulfide	6.6E+01	1.4E+09	--	5E-08	--
24411 PANAMA AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24411 PANAMA AVE	Ethylbenzene	2.2E+01	6.3E+08	7.0E+06	4E-08	3E-11
24411 PANAMA AVE	Naphthalene	3.7E+00	2.3E+05	6.3E+04	2E-05	6E-10
24411 PANAMA AVE	o-Xylene	8.7E+01	5.9E+07	--	2E-06	--
24411 PANAMA AVE	p/m-Xylene	1.9E+02	5.9E+07	--	3E-06	--
24411 PANAMA AVE	Tetrachloroethene	7.4E+01	5.5E+07	6.6E+06	1E-06	1E-10
24411 PANAMA AVE	Toluene	1.9E+02	3.7E+09	--	5E-08	--
24412 MARBELLA AVE	1,4-Dioxane	2.0E+01	1.3E+08	1.6E+05	2E-07	1E-09
24412 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	1.1E+09	--	9E-09	--
24412 MARBELLA AVE	2-Hexanone	2.2E+00	7.9E+06	--	3E-07	--
24412 MARBELLA AVE	Benzene	5.1E+00	3.2E+07	1.0E+06	2E-07	5E-11
24412 MARBELLA AVE	Chloroform	1.8E+01	9.0E+07	4.9E+06	2E-07	4E-11
24412 MARBELLA AVE	cis-1,2-Dichloroethene	3.2E+01	8.3E+06	--	4E-06	--
24412 MARBELLA AVE	Cumene (Isopropylbenzene)	2.2E+00	1.5E+09	--	2E-09	--
24412 MARBELLA AVE	Ethanol	2.2E+01	1.9E+08	--	1E-07	--
24412 MARBELLA AVE	Isopropanol	4.7E+01	5.7E+08	--	8E-08	--
24412 MARBELLA AVE	Methyl-tert-Butyl Ether	1.9E+01	1.8E+09	6.5E+07	1E-08	3E-12
24412 MARBELLA AVE	Naphthalene	4.6E-01	2.3E+05	6.3E+04	2E-06	7E-11
24412 MARBELLA AVE	Tetrachloroethene	1.8E+00	5.5E+07	6.6E+06	3E-08	3E-12
24412 MARBELLA AVE	Toluene	1.4E+01	3.7E+09	--	4E-09	--
24412 MARBELLA AVE	Trichloroethene	7.2E+02	2.0E+06	6.7E+06	4E-04	1E-09
24412 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	8.4E+00	1.1E+09	--	7E-09	--
24412 RAVENNA AVE	Benzene	8.7E+00	3.2E+07	1.0E+06	3E-07	9E-11
24412 RAVENNA AVE	Ethanol	1.7E+01	1.9E+08	--	9E-08	--
24412 RAVENNA AVE	Tetrahydrofuran	4.6E+00	4.9E+08	--	1E-08	--
24413 NEPTUNE AVE	Benzene	3.9E+00	3.2E+07	1.0E+06	1E-07	4E-11
24413 NEPTUNE AVE	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
24413 NEPTUNE AVE	Ethylbenzene	3.1E+01	6.3E+08	7.0E+06	5E-08	4E-11
24413 NEPTUNE AVE	Heptane	3.8E+01	2.3E+09	--	2E-08	--
24413 NEPTUNE AVE	Hexane	3.2E+01	1.7E+09	--	2E-08	--
24413 NEPTUNE AVE	Naphthalene	6.3E+00	2.3E+05	6.3E+04	3E-05	1E-09
24413 NEPTUNE AVE	p/m-Xylene	8.7E+00	5.9E+07	--	2E-07	--
24413 NEPTUNE AVE	Toluene	1.2E+03	3.7E+09	--	3E-07	--
24413 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	7.2E+00	1.1E+09	--	6E-09	--
24413 RAVENNA AVE	Benzene	4.1E+00	3.2E+07	1.0E+06	1E-07	4E-11
24413 RAVENNA AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24413 RAVENNA AVE	Hexane	4.2E+00	1.7E+09	--	3E-09	--
24413 RAVENNA AVE	Naphthalene	8.0E+00	2.3E+05	6.3E+04	4E-05	1E-09
24416 MARBELLA AVE	Carbon Disulfide	3.8E+00	1.4E+09	--	3E-09	--
24416 MARBELLA AVE	Chloroform	1.9E+01	9.0E+07	4.9E+06	2E-07	4E-11
24416 MARBELLA AVE	Naphthalene	1.5E+00	2.3E+05	6.3E+04	7E-06	2E-10
24416 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	7.7E+00	1.1E+09	--	7E-09	--
24416 NEPTUNE AVE	Chloroform	1.3E+01	9.0E+07	4.9E+06	1E-07	3E-11
24416 NEPTUNE AVE	Isopropanol	1.2E+01	5.7E+08	--	2E-08	--
24416 NEPTUNE AVE	Naphthalene	2.1E+00	2.3E+05	6.3E+04	9E-06	3E-10
24416 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	5.4E+00	1.1E+09	--	5E-09	--
24416 PANAMA AVE	Benzene	2.7E+01	3.2E+07	1.0E+06	9E-07	3E-10
24416 PANAMA AVE	Ethanol	1.7E+01	1.9E+08	--	9E-08	--
24416 PANAMA AVE	Hexane	4.2E+00	1.7E+09	--	3E-09	--
24416 PANAMA AVE	Isopropanol	5.1E+00	5.7E+08	--	9E-09	--
24416 PANAMA AVE	Naphthalene	7.5E+00	2.3E+05	6.3E+04	3E-05	1E-09
24416 PANAMA AVE	Toluene	1.3E+01	3.7E+09	--	4E-09	--
24416 PANAMA AVE	Trichloroethene	5.9E+00	2.0E+06	6.7E+06	3E-06	9E-12
24416 RAVENNA AVE	1,2,4-Trimethylbenzene	7.3E+00	2.3E+06	--	3E-06	--
24416 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.9E+01	1.1E+09	--	2E-08	--
24416 RAVENNA AVE	Benzene	2.2E+02	3.2E+07	1.0E+06	7E-06	2E-09

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24416 RAVENNA AVE	Carbon Disulfide	1.4E+01	1.4E+09	--	1E-08	--
24416 RAVENNA AVE	Cumene (Isopropylbenzene)	2.4E+01	1.5E+09	--	2E-08	--
24416 RAVENNA AVE	Ethanol	2.8E+02	1.9E+08	--	1E-06	--
24416 RAVENNA AVE	Isopropanol	1.9E+01	5.7E+08	--	3E-08	--
24416 RAVENNA AVE	Methylene Chloride	6.9E+00	6.1E+08	2.8E+07	1E-08	2E-12
24416 RAVENNA AVE	Naphthalene	9.3E+00	2.3E+05	6.3E+04	4E-05	2E-09
24416 RAVENNA AVE	p/m-Xylene	9.0E+00	5.9E+07	--	2E-07	--
24416 RAVENNA AVE	Tetrahydrofuran	7.4E+00	4.9E+08	--	2E-08	--
24416 RAVENNA AVE	Toluene	9.5E+00	3.7E+09	--	3E-09	--
24417 MARBELLA AVE	Naphthalene	3.3E+00	2.3E+05	6.3E+04	1E-05	5E-10
24417 MARBELLA AVE	Tetrachloroethene	1.9E+01	5.5E+07	6.6E+06	3E-07	3E-11
24417 MARBELLA AVE	Tetrahydrofuran	3.8E+00	4.9E+08	--	8E-09	--
24419 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	1.1E+09	--	1E-08	--
24419 NEPTUNE AVE	Benzene	8.9E+00	3.2E+07	1.0E+06	3E-07	9E-11
24419 NEPTUNE AVE	Chloroform	1.4E+03	9.0E+07	4.9E+06	2E-05	3E-09
24419 NEPTUNE AVE	Ethanol	9.2E+01	1.9E+08	--	5E-07	--
24419 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	1.1E+09	--	1E-08	--
24419 RAVENNA AVE	Benzene	3.2E+00	3.2E+07	1.0E+06	1E-07	3E-11
24419 RAVENNA AVE	Chloroform	2.5E+01	9.0E+07	4.9E+06	3E-07	5E-11
24419 RAVENNA AVE	Ethanol	1.5E+01	1.9E+08	--	8E-08	--
24419 RAVENNA AVE	Naphthalene	1.6E+00	2.3E+05	6.3E+04	7E-06	3E-10
24420 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+01	1.1E+09	--	2E-08	--
24420 PANAMA AVE	Ethanol	3.4E+01	1.9E+08	--	2E-07	--
24420 PANAMA AVE	Naphthalene	2.6E+00	2.3E+05	6.3E+04	1E-05	4E-10
24421 PANAMA AVE	2,2,4-Trimethylpentane	2.0E+00	6.5E+08	--	3E-09	--
24421 PANAMA AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24421 PANAMA AVE	Naphthalene	2.0E+00	2.3E+05	6.3E+04	9E-06	3E-10
24421 PANAMA AVE	Tetrachloroethene	2.3E+00	5.5E+07	6.6E+06	4E-08	4E-12
24421 PANAMA AVE	Trichloroethene	2.7E+00	2.0E+06	6.7E+06	1E-06	4E-12
24422 MARBELLA AVE	2,2,4-Trimethylpentane	6.3E+00	6.5E+08	--	1E-08	--
24422 MARBELLA AVE	Bromodichloromethane	3.5E+00	7.2E+07	7.8E+05	5E-08	5E-11
24422 MARBELLA AVE	Chloroform	1.8E+01	9.0E+07	4.9E+06	2E-07	4E-11
24422 MARBELLA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24422 MARBELLA AVE	Naphthalene	4.6E+00	2.3E+05	6.3E+04	2E-05	7E-10
24422 MARBELLA AVE	p/m-Xylene	5.4E+00	5.9E+07	--	9E-08	--
24422 MARBELLA AVE	Toluene	4.6E+00	3.7E+09	--	1E-09	--
24422 NEPTUNE AVE	1,2,4-Trimethylbenzene	4.3E+01	2.3E+06	--	2E-05	--
24422 NEPTUNE AVE	1,3,5-Trimethylbenzene	1.4E+01	2.3E+06	--	6E-06	--
24422 NEPTUNE AVE	1,4-Dioxane	2.2E+01	1.3E+08	1.6E+05	2E-07	1E-09
24422 NEPTUNE AVE	4-Ethyltoluene	2.8E+01	2.5E+07	--	1E-06	--
24422 NEPTUNE AVE	Benzene	5.8E+00	3.2E+07	1.0E+06	2E-07	6E-11
24422 NEPTUNE AVE	Chloroform	4.8E+01	9.0E+07	4.9E+06	5E-07	1E-10
24422 NEPTUNE AVE	Cumene (Isopropylbenzene)	6.3E+00	1.5E+09	--	4E-09	--
24422 NEPTUNE AVE	Ethanol	2.0E+01	1.9E+08	--	1E-07	--
24422 NEPTUNE AVE	Ethylbenzene	6.8E+00	6.3E+08	7.0E+06	1E-08	1E-11
24422 NEPTUNE AVE	Hexane	6.9E+00	1.7E+09	--	4E-09	--
24422 NEPTUNE AVE	o-Xylene	2.2E+01	5.9E+07	--	4E-07	--
24422 NEPTUNE AVE	p/m-Xylene	4.6E+01	5.9E+07	--	8E-07	--
24422 NEPTUNE AVE	Toluene	1.7E+01	3.7E+09	--	5E-09	--
24422 RAVENNA AVE	Ethanol	1.0E+01	1.9E+08	--	5E-08	--
24422 RAVENNA AVE	Naphthalene	2.2E+00	2.3E+05	6.3E+04	1E-05	4E-10
24422 RAVENNA AVE	Toluene	7.8E+01	3.7E+09	--	2E-08	--
24423 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.9E+00	1.1E+09	--	4E-09	--
24423 MARBELLA AVE	Benzene	5.6E+00	3.2E+07	1.0E+06	2E-07	6E-11
24423 MARBELLA AVE	Carbon Disulfide	2.7E+01	1.4E+09	--	2E-08	--
24423 MARBELLA AVE	Ethanol	2.9E+01	1.9E+08	--	2E-07	--
24423 MARBELLA AVE	Naphthalene	1.2E+00	2.3E+05	6.3E+04	5E-06	2E-10
24423 MARBELLA AVE	Tetrachloroethene	2.6E+02	5.5E+07	6.6E+06	5E-06	4E-10
24423 NEPTUNE AVE	1,2,4-Trimethylbenzene	4.5E+00	2.3E+06	--	2E-06	--
24423 NEPTUNE AVE	2,2,4-Trimethylpentane	6.9E+01	6.5E+08	--	1E-07	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24423 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	1.1E+09	--	1E-08	--
24423 NEPTUNE AVE	4-Ethyltoluene	5.4E+00	2.5E+07	--	2E-07	--
24423 NEPTUNE AVE	Benzene	1.6E+01	3.2E+07	1.0E+06	5E-07	2E-10
24423 NEPTUNE AVE	Bromomethane	3.5E+01	9.5E+06	--	4E-06	--
24423 NEPTUNE AVE	Carbon Disulfide	8.1E+01	1.4E+09	--	6E-08	--
24423 NEPTUNE AVE	Chloroform	9.3E+02	9.0E+07	4.9E+06	1E-05	2E-09
24423 NEPTUNE AVE	Cyclohexane	2.3E+01	1.8E+10	--	1E-09	--
24423 NEPTUNE AVE	Ethanol	2.2E+01	1.9E+08	--	1E-07	--
24423 NEPTUNE AVE	Ethylbenzene	4.2E+00	6.3E+08	7.0E+06	7E-09	6E-12
24423 NEPTUNE AVE	Heptane	8.6E+02	2.3E+09	--	4E-07	--
24423 NEPTUNE AVE	Hexane	6.3E+02	1.7E+09	--	4E-07	--
24423 NEPTUNE AVE	Isopropanol	1.7E+04	5.7E+08	--	3E-05	--
24423 NEPTUNE AVE	Methylene Chloride	5.5E+02	6.1E+08	2.8E+07	9E-07	2E-10
24423 NEPTUNE AVE	Naphthalene	2.8E+00	2.3E+05	6.3E+04	1E-05	4E-10
24423 NEPTUNE AVE	o-Xylene	5.8E+00	5.9E+07	--	1E-07	--
24423 NEPTUNE AVE	p/m-Xylene	1.6E+01	5.9E+07	--	3E-07	--
24423 NEPTUNE AVE	Toluene	1.8E+02	3.7E+09	--	5E-08	--
24423 NEPTUNE AVE	Vinyl Chloride	2.7E+01	2.3E+08	8.3E+05	1E-07	3E-10
24423 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	5.9E+00	1.1E+09	--	5E-09	--
24423 RAVENNA AVE	Benzene	3.9E+00	3.2E+07	1.0E+06	1E-07	4E-11
24423 RAVENNA AVE	Chloroform	1.0E+02	9.0E+07	4.9E+06	1E-06	2E-10
24423 RAVENNA AVE	Cumene (Isopropylbenzene)	6.0E+00	1.5E+09	--	4E-09	--
24423 RAVENNA AVE	Naphthalene	5.8E+00	2.3E+05	6.3E+04	3E-05	9E-10
24426 MARBELLA AVE	1,2,4-Trimethylbenzene	5.7E+00	2.3E+06	--	3E-06	--
24426 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	6.0E+00	1.1E+09	--	5E-09	--
24426 MARBELLA AVE	Carbon Disulfide	5.7E+00	1.4E+09	--	4E-09	--
24426 MARBELLA AVE	Naphthalene	1.4E+01	2.3E+05	6.3E+04	6E-05	2E-09
24426 MARBELLA AVE	Tetrachloroethene	1.9E+01	5.5E+07	6.6E+06	3E-07	3E-11
24426 NEPTUNE AVE	1,4-Dioxane	1.8E+01	1.3E+08	1.6E+05	1E-07	1E-09
24426 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+00	1.1E+09	--	6E-09	--
24426 NEPTUNE AVE	Benzene	1.7E+01	3.2E+07	1.0E+06	5E-07	2E-10
24426 NEPTUNE AVE	Bromomethane	4.5E+00	9.5E+06	--	5E-07	--
24426 NEPTUNE AVE	Carbon Disulfide	1.3E+01	1.4E+09	--	9E-09	--
24426 NEPTUNE AVE	Cumene (Isopropylbenzene)	1.1E+01	1.5E+09	--	8E-09	--
24426 NEPTUNE AVE	Ethanol	9.6E+00	1.9E+08	--	5E-08	--
24426 NEPTUNE AVE	Isopropanol	1.9E+01	5.7E+08	--	3E-08	--
24426 NEPTUNE AVE	Methylene Chloride	5.0E+00	6.1E+08	2.8E+07	8E-09	2E-12
24426 NEPTUNE AVE	Naphthalene	5.2E+00	2.3E+05	6.3E+04	2E-05	8E-10
24426 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	9.7E+00	1.1E+09	--	8E-09	--
24426 PANAMA AVE	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
24426 PANAMA AVE	Heptane	6.8E+00	2.3E+09	--	3E-09	--
24426 PANAMA AVE	Hexane	1.2E+01	1.7E+09	--	7E-09	--
24426 PANAMA AVE	Methylene Chloride	4.5E+00	6.1E+08	2.8E+07	7E-09	2E-12
24426 PANAMA AVE	Naphthalene	2.1E+00	2.3E+05	6.3E+04	9E-06	3E-10
24426 PANAMA AVE	Toluene	2.4E+01	3.7E+09	--	7E-09	--
24426 RAVENNA AVE	1,2,4-Trimethylbenzene	2.2E+01	2.3E+06	--	1E-05	--
24426 RAVENNA AVE	1,3,5-Trimethylbenzene	5.7E+00	2.3E+06	--	3E-06	--
24426 RAVENNA AVE	2,2,4-Trimethylpentane	6.2E+00	6.5E+08	--	1E-08	--
24426 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	7.2E+00	1.1E+09	--	6E-09	--
24426 RAVENNA AVE	4-Ethyltoluene	1.5E+01	2.5E+07	--	6E-07	--
24426 RAVENNA AVE	Ethanol	8.9E+00	1.9E+08	--	5E-08	--
24426 RAVENNA AVE	Ethylbenzene	5.6E+00	6.3E+08	7.0E+06	9E-09	8E-12
24426 RAVENNA AVE	Naphthalene	2.6E+01	2.3E+05	6.3E+04	1E-04	4E-09
24426 RAVENNA AVE	o-Xylene	9.8E+00	5.9E+07	--	2E-07	--
24426 RAVENNA AVE	p/m-Xylene	1.9E+01	5.9E+07	--	3E-07	--
24426 RAVENNA AVE	Toluene	1.3E+01	3.7E+09	--	4E-09	--
24427 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	1.1E+09	--	1E-08	--
24427 MARBELLA AVE	Ethanol	1.9E+01	1.9E+08	--	1E-07	--
24427 MARBELLA AVE	Naphthalene	2.9E+00	2.3E+05	6.3E+04	1E-05	5E-10
24427 MARBELLA AVE	Tetrachloroethene	8.0E+00	5.5E+07	6.6E+06	1E-07	1E-11

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Detailed Risk Calculations

Table E-6
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Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24427 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+00	1.1E+09	--	6E-09	--
24427 PANAMA AVE	Benzene	6.7E+00	3.2E+07	1.0E+06	2E-07	7E-11
24427 PANAMA AVE	Chloroform	3.4E+01	9.0E+07	4.9E+06	4E-07	7E-11
24427 PANAMA AVE	Naphthalene	7.4E-01	2.3E+05	6.3E+04	3E-06	1E-10
24429 NEPTUNE AVE	1,2,4-Trimethylbenzene	6.2E+00	2.3E+06	--	3E-06	--
24429 NEPTUNE AVE	2,2,4-Trimethylpentane	5.5E+00	6.5E+08	--	8E-09	--
24429 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.0E+01	1.1E+09	--	4E-08	--
24429 NEPTUNE AVE	Bromomethane	1.0E+01	9.5E+06	--	1E-06	--
24429 NEPTUNE AVE	cis-1,2-Dichloroethene	3.1E+01	8.3E+06	--	4E-06	--
24429 NEPTUNE AVE	Ethanol	4.0E+01	1.9E+08	--	2E-07	--
24429 NEPTUNE AVE	Isopropanol	3.5E+01	5.7E+08	--	6E-08	--
24429 NEPTUNE AVE	Methylene Chloride	4.6E+00	6.1E+08	2.8E+07	8E-09	2E-12
24429 NEPTUNE AVE	Naphthalene	1.4E+00	2.3E+05	6.3E+04	6E-06	2E-10
24429 NEPTUNE AVE	p/m-Xylene	4.5E+00	5.9E+07	--	8E-08	--
24429 NEPTUNE AVE	Tetrachloroethene	3.6E+02	5.5E+07	6.6E+06	7E-06	6E-10
24429 NEPTUNE AVE	Tetrahydrofuran	3.3E+01	4.9E+08	--	7E-08	--
24429 NEPTUNE AVE	Toluene	3.3E+01	3.7E+09	--	9E-09	--
24429 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	7.8E+00	1.1E+09	--	7E-09	--
24429 RAVENNA AVE	Carbon Disulfide	7.0E+00	1.4E+09	--	5E-09	--
24429 RAVENNA AVE	Chloroform	2.4E+01	9.0E+07	4.9E+06	3E-07	5E-11
24429 RAVENNA AVE	Isopropanol	2.5E+01	5.7E+08	--	4E-08	--
24429 RAVENNA AVE	Naphthalene	1.6E+00	2.3E+05	6.3E+04	7E-06	3E-10
24430 PANAMA AVE	1,4-Dichlorobenzene	1.1E+01	2.3E+08	7.2E+05	5E-08	2E-10
24430 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	5.9E+01	1.1E+09	--	5E-08	--
24430 PANAMA AVE	Benzene	5.8E+00	3.2E+07	1.0E+06	2E-07	6E-11
24430 PANAMA AVE	Carbon Disulfide	1.7E+01	1.4E+09	--	1E-08	--
24430 PANAMA AVE	Ethanol	3.7E+01	1.9E+08	--	2E-07	--
24430 PANAMA AVE	Isopropanol	1.8E+01	5.7E+08	--	3E-08	--
24430 PANAMA AVE	Naphthalene	1.1E+01	2.3E+05	6.3E+04	5E-05	2E-09
24430 PANAMA AVE	p/m-Xylene	1.9E+01	5.9E+07	--	3E-07	--
24430 PANAMA AVE	Tetrachloroethene	2.1E+01	5.5E+07	6.6E+06	4E-07	3E-11
24430 PANAMA AVE	Toluene	3.1E+01	3.7E+09	--	8E-09	--
24431 PANAMA AVE	1,2,4-Trimethylbenzene	6.1E+00	2.3E+06	--	3E-06	--
24431 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.2E+00	1.1E+09	--	5E-09	--
24431 PANAMA AVE	Ethanol	9.7E+00	1.9E+08	--	5E-08	--
24431 PANAMA AVE	Naphthalene	4.3E+00	2.3E+05	6.3E+04	2E-05	7E-10
24431 PANAMA AVE	o-Xylene	7.7E+00	5.9E+07	--	1E-07	--
24431 PANAMA AVE	p/m-Xylene	2.1E+01	5.9E+07	--	4E-07	--
24431 PANAMA AVE	Toluene	2.1E+01	3.7E+09	--	6E-09	--
24432 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24432 MARBELLA AVE	Benzene	8.3E+00	3.2E+07	1.0E+06	3E-07	8E-11
24432 MARBELLA AVE	Chloroform	1.4E+01	9.0E+07	4.9E+06	2E-07	3E-11
24432 MARBELLA AVE	Ethanol	1.8E+01	1.9E+08	--	9E-08	--
24432 MARBELLA AVE	Isopropanol	1.2E+01	5.7E+08	--	2E-08	--
24432 MARBELLA AVE	Naphthalene	5.9E+00	2.3E+05	6.3E+04	3E-05	9E-10
24432 MARBELLA AVE	o-Xylene	6.9E+00	5.9E+07	--	1E-07	--
24432 MARBELLA AVE	p/m-Xylene	1.9E+01	5.9E+07	--	3E-07	--
24432 MARBELLA AVE	Toluene	4.1E+01	3.7E+09	--	1E-08	--
24433 MARBELLA AVE	1,2,4-Trimethylbenzene	2.0E+02	2.3E+06	--	9E-05	--
24433 MARBELLA AVE	1,3,5-Trimethylbenzene	9.3E+01	2.3E+06	--	4E-05	--
24433 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.9E+01	1.1E+09	--	2E-08	--
24433 MARBELLA AVE	4-Ethyltoluene	2.3E+02	2.5E+07	--	9E-06	--
24433 MARBELLA AVE	Benzene	5.8E+00	3.2E+07	1.0E+06	2E-07	6E-11
24433 MARBELLA AVE	Chloroform	7.1E+00	9.0E+07	4.9E+06	8E-08	2E-11
24433 MARBELLA AVE	Cumene (Isopropylbenzene)	1.3E+01	1.5E+09	--	9E-09	--
24433 MARBELLA AVE	Ethanol	2.6E+01	1.9E+08	--	1E-07	--
24433 MARBELLA AVE	Ethylbenzene	1.0E+01	6.3E+08	7.0E+06	2E-08	1E-11
24433 MARBELLA AVE	Heptane	3.7E+00	2.3E+09	--	2E-09	--
24433 MARBELLA AVE	Isopropanol	9.3E+00	5.7E+08	--	2E-08	--
24433 MARBELLA AVE	Naphthalene	3.1E+01	2.3E+05	6.3E+04	1E-04	5E-09

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24433 MARBELLA AVE	o-Xylene	1.1E+02	5.9E+07	--	2E-06	--
24433 MARBELLA AVE	p/m-Xylene	8.7E+01	5.9E+07	--	2E-06	--
24433 MARBELLA AVE	Propylbenzene	1.4E+01	6.6E+08	--	2E-08	--
24433 MARBELLA AVE	Tetrachloroethene	2.0E+02	5.5E+07	6.6E+06	4E-06	3E-10
24433 MARBELLA AVE	Toluene	9.3E+00	3.7E+09	--	3E-09	--
24436 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	3.6E+01	1.1E+09	--	3E-08	--
24436 PANAMA AVE	Benzene	7.1E+00	3.2E+07	1.0E+06	2E-07	7E-11
24436 PANAMA AVE	Chloroform	9.8E+00	9.0E+07	4.9E+06	1E-07	2E-11
24436 PANAMA AVE	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
24436 PANAMA AVE	Isopropanol	2.8E+01	5.7E+08	--	5E-08	--
24436 PANAMA AVE	Naphthalene	3.4E+00	2.3E+05	6.3E+04	2E-05	5E-10
24436 PANAMA AVE	Tetrachloroethene	9.6E+00	5.5E+07	6.6E+06	2E-07	2E-11
24436 PANAMA AVE	Toluene	1.3E+01	3.7E+09	--	4E-09	--
24502 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	6.0E+00	1.1E+09	--	5E-09	--
24502 MARBELLA AVE	Bromodichloromethane	1.5E+01	7.2E+07	7.8E+05	2E-07	2E-10
24502 MARBELLA AVE	Bromomethane	5.9E+00	9.5E+06	--	6E-07	--
24502 MARBELLA AVE	Chloroform	8.3E+01	9.0E+07	4.9E+06	9E-07	2E-10
24502 MARBELLA AVE	Ethanol	2.4E+01	1.9E+08	--	1E-07	--
24502 MARBELLA AVE	Heptane	3.6E+00	2.3E+09	--	2E-09	--
24502 MARBELLA AVE	Naphthalene	3.4E+00	2.3E+05	6.3E+04	2E-05	5E-10
24502 MARBELLA AVE	Tetrahydrofuran	6.4E+00	4.9E+08	--	1E-08	--
24502 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.0E+01	2.3E+06	--	4E-06	--
24502 NEPTUNE AVE	4-Ethyltoluene	7.3E+00	2.5E+07	--	3E-07	--
24502 NEPTUNE AVE	Bromodichloromethane	4.2E+01	7.2E+07	7.8E+05	6E-07	5E-10
24502 NEPTUNE AVE	Chloroform	5.2E+02	9.0E+07	4.9E+06	6E-06	1E-09
24502 NEPTUNE AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24502 NEPTUNE AVE	Heptane	5.9E+00	2.3E+09	--	3E-09	--
24502 NEPTUNE AVE	Naphthalene	8.8E+00	2.3E+05	6.3E+04	4E-05	1E-09
24502 NEPTUNE AVE	p/m-Xylene	1.2E+01	5.9E+07	--	2E-07	--
24502 PANAMA AVE	1,2,4-Trimethylbenzene	1.7E+01	2.3E+06	--	7E-06	--
24502 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	4.1E+00	1.1E+09	--	4E-09	--
24502 PANAMA AVE	4-Ethyltoluene	6.9E+00	2.5E+07	--	3E-07	--
24502 PANAMA AVE	Benzene	4.9E+00	3.2E+07	1.0E+06	2E-07	5E-11
24502 PANAMA AVE	Naphthalene	1.2E+01	2.3E+05	6.3E+04	5E-05	2E-09
24502 PANAMA AVE	o-Xylene	1.4E+01	5.9E+07	--	2E-07	--
24502 PANAMA AVE	p/m-Xylene	2.6E+01	5.9E+07	--	4E-07	--
24502 PANAMA AVE	Toluene	2.5E+01	3.7E+09	--	7E-09	--
24502 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	1.1E+09	--	2E-08	--
24502 RAVENNA AVE	Benzene	9.6E+00	3.2E+07	1.0E+06	3E-07	9E-11
24502 RAVENNA AVE	Carbon Disulfide	5.7E+00	1.4E+09	--	4E-09	--
24502 RAVENNA AVE	Chloroform	7.7E+00	9.0E+07	4.9E+06	9E-08	2E-11
24502 RAVENNA AVE	Ethanol	3.9E+01	1.9E+08	--	2E-07	--
24502 RAVENNA AVE	Naphthalene	3.8E+00	2.3E+05	6.3E+04	2E-05	6E-10
24502 RAVENNA AVE	Tetrachloroethene	1.3E+01	5.5E+07	6.6E+06	2E-07	2E-11
24503 MARBELLA AVE	1,2,4-Trimethylbenzene	5.6E+00	2.3E+06	--	2E-06	--
24503 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	8.7E+00	1.1E+09	--	8E-09	--
24503 MARBELLA AVE	Ethanol	6.0E+00	1.9E+08	--	3E-08	--
24503 MARBELLA AVE	Naphthalene	3.5E+00	2.3E+05	6.3E+04	2E-05	6E-10
24503 MARBELLA AVE	Tetrachloroethene	2.2E+02	5.5E+07	6.6E+06	4E-06	3E-10
24503 MARBELLA AVE	Trichloroethene	4.7E+00	2.0E+06	6.7E+06	2E-06	7E-12
24503 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.7E+00	1.1E+09	--	4E-09	--
24503 NEPTUNE AVE	Benzene	4.1E+00	3.2E+07	1.0E+06	1E-07	4E-11
24503 NEPTUNE AVE	Chloroform	1.1E+03	9.0E+07	4.9E+06	1E-05	2E-09
24503 NEPTUNE AVE	Ethanol	8.3E+00	1.9E+08	--	4E-08	--
24503 NEPTUNE AVE	Ethylbenzene	6.2E+00	6.3E+08	7.0E+06	1E-08	9E-12
24503 NEPTUNE AVE	Isopropanol	2.1E+01	5.7E+08	--	4E-08	--
24503 NEPTUNE AVE	Naphthalene	3.2E+00	2.3E+05	6.3E+04	1E-05	5E-10
24503 NEPTUNE AVE	o-Xylene	4.6E+00	5.9E+07	--	8E-08	--
24503 NEPTUNE AVE	p/m-Xylene	2.0E+01	5.9E+07	--	3E-07	--
24503 NEPTUNE AVE	Toluene	2.1E+01	3.7E+09	--	6E-09	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24503 PANAMA AVE	2,2,4-Trimethylpentane	1.3E+01	6.5E+08	--	2E-08	--
24503 PANAMA AVE	Benzene	1.2E+01	3.2E+07	1.0E+06	4E-07	1E-10
24503 PANAMA AVE	Chloroform	2.2E+01	9.0E+07	4.9E+06	2E-07	5E-11
24503 PANAMA AVE	Cyclohexane	5.4E+01	1.8E+10	--	3E-09	--
24503 PANAMA AVE	Ethanol	2.9E+02	1.9E+08	--	2E-06	--
24503 PANAMA AVE	Heptane	1.5E+01	2.3E+09	--	6E-09	--
24503 PANAMA AVE	Hexane	6.2E+01	1.7E+09	--	4E-08	--
24503 PANAMA AVE	Naphthalene	4.5E+00	2.3E+05	6.3E+04	2E-05	7E-10
24503 PANAMA AVE	Tetrachloroethene	2.3E+01	5.5E+07	6.6E+06	4E-07	4E-11
24503 PANAMA AVE	Toluene	2.7E+01	3.7E+09	--	7E-09	--
24503 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24503 RAVENNA AVE	Carbon Disulfide	9.5E+00	1.4E+09	--	7E-09	--
24503 RAVENNA AVE	Chloroform	1.3E+01	9.0E+07	4.9E+06	1E-07	3E-11
24503 RAVENNA AVE	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
24503 RAVENNA AVE	Methylene Chloride	5.4E+00	6.1E+08	2.8E+07	9E-09	2E-12
24503 RAVENNA AVE	Naphthalene	6.0E-01	2.3E+05	6.3E+04	3E-06	1E-10
24503 RAVENNA AVE	Tetrachloroethene	1.9E+01	5.5E+07	6.6E+06	3E-07	3E-11
24506 MARBELLA AVE	1,2,4-Trimethylbenzene	8.5E+01	2.3E+06	--	4E-05	--
24506 MARBELLA AVE	1,3,5-Trimethylbenzene	2.9E+01	2.3E+06	--	1E-05	--
24506 MARBELLA AVE	2,2,4-Trimethylpentane	7.4E+00	6.5E+08	--	1E-08	--
24506 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.9E+01	1.1E+09	--	2E-08	--
24506 MARBELLA AVE	4-Ethyltoluene	1.0E+02	2.5E+07	--	4E-06	--
24506 MARBELLA AVE	Benzene	1.3E+02	3.2E+07	1.0E+06	4E-06	1E-09
24506 MARBELLA AVE	Bromomethane	6.9E+00	9.5E+06	--	7E-07	--
24506 MARBELLA AVE	Cyclohexane	4.8E+00	1.8E+10	--	3E-10	--
24506 MARBELLA AVE	Ethanol	3.5E+01	1.9E+08	--	2E-07	--
24506 MARBELLA AVE	Ethylbenzene	9.8E+01	6.3E+08	7.0E+06	2E-07	1E-10
24506 MARBELLA AVE	Heptane	1.1E+01	2.3E+09	--	5E-09	--
24506 MARBELLA AVE	Hexane	1.3E+01	1.7E+09	--	8E-09	--
24506 MARBELLA AVE	Methylene Chloride	5.7E+00	6.1E+08	2.8E+07	9E-09	2E-12
24506 MARBELLA AVE	Naphthalene	3.8E+00	2.3E+05	6.3E+04	2E-05	6E-10
24506 MARBELLA AVE	o-Xylene	1.9E+02	5.9E+07	--	3E-06	--
24506 MARBELLA AVE	p/m-Xylene	5.3E+02	5.9E+07	--	9E-06	--
24506 MARBELLA AVE	Propylbenzene	1.2E+01	6.6E+08	--	2E-08	--
24506 MARBELLA AVE	Toluene	4.0E+02	3.7E+09	--	1E-07	--
24507 MARBELLA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24507 MARBELLA AVE	Hexane	4.4E+00	1.7E+09	--	3E-09	--
24507 MARBELLA AVE	Naphthalene	1.4E+00	2.3E+05	6.3E+04	6E-06	2E-10
24507 MARBELLA AVE	Tetrachloroethene	1.3E+01	5.5E+07	6.6E+06	2E-07	2E-11
24508 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	1.1E+09	--	9E-09	--
24508 NEPTUNE AVE	Ethanol	2.0E+01	1.9E+08	--	1E-07	--
24508 NEPTUNE AVE	Naphthalene	2.3E+00	2.3E+05	6.3E+04	1E-05	4E-10
24508 NEPTUNE AVE	Trichloroethene	6.9E+00	2.0E+06	6.7E+06	4E-06	1E-11
24508 PANAMA AVE	1,2,4-Trichlorobenzene	1.3E+03	3.9E+05	--	3E-03	--
24508 PANAMA AVE	1,2,4-Trimethylbenzene	1.2E+03	2.3E+06	--	5E-04	--
24508 PANAMA AVE	1,3,5-Trimethylbenzene	1.6E+02	2.3E+06	--	7E-05	--
24508 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	1.1E+09	--	1E-08	--
24508 PANAMA AVE	4-Ethyltoluene	2.4E+02	2.5E+07	--	1E-05	--
24508 PANAMA AVE	Benzene	9.9E+00	3.2E+07	1.0E+06	3E-07	1E-10
24508 PANAMA AVE	Cumene (Isopropylbenzene)	1.0E+01	1.5E+09	--	7E-09	--
24508 PANAMA AVE	Ethanol	1.7E+01	1.9E+08	--	9E-08	--
24508 PANAMA AVE	Isopropanol	2.1E+01	5.7E+08	--	4E-08	--
24508 PANAMA AVE	Naphthalene	1.8E+02	2.3E+05	6.3E+04	8E-04	3E-08
24508 PANAMA AVE	o-Xylene	8.0E+00	5.9E+07	--	1E-07	--
24508 PANAMA AVE	p/m-Xylene	7.9E+00	5.9E+07	--	1E-07	--
24508 PANAMA AVE	Propylbenzene	2.7E+01	6.6E+08	--	4E-08	--
24508 PANAMA AVE	Toluene	3.4E+00	3.7E+09	--	9E-10	--
24508 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	1.1E+09	--	1E-08	--
24508 RAVENNA AVE	Chloroform	3.7E+00	9.0E+07	4.9E+06	4E-08	8E-12
24508 RAVENNA AVE	Ethanol	1.2E+01	1.9E+08	--	6E-08	--

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Detailed Risk Calculations

Table E-6
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Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24508 RAVENNA AVE	Hexane	4.8E+00	1.7E+09	--	3E-09	--
24508 RAVENNA AVE	Naphthalene	2.0E+00	2.3E+05	6.3E+04	9E-06	3E-10
24509 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.1E+01	1.1E+09	--	2E-08	--
24509 NEPTUNE AVE	Benzene	4.4E+00	3.2E+07	1.0E+06	1E-07	4E-11
24509 NEPTUNE AVE	Cumene (Isopropylbenzene)	2.8E+00	1.5E+09	--	2E-09	--
24509 NEPTUNE AVE	Ethanol	2.6E+01	1.9E+08	--	1E-07	--
24509 NEPTUNE AVE	Naphthalene	2.6E+00	2.3E+05	6.3E+04	1E-05	4E-10
24509 NEPTUNE AVE	Toluene	1.3E+01	3.7E+09	--	4E-09	--
24509 PANAMA AVE	Carbon Disulfide	4.0E+00	1.4E+09	--	3E-09	--
24509 PANAMA AVE	Naphthalene	3.7E+00	2.3E+05	6.3E+04	2E-05	6E-10
24509 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24509 RAVENNA AVE	Carbon Disulfide	5.1E+01	1.4E+09	--	4E-08	--
24509 RAVENNA AVE	Chloroform	2.0E+01	9.0E+07	4.9E+06	2E-07	4E-11
24509 RAVENNA AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24509 RAVENNA AVE	Naphthalene	5.1E+00	2.3E+05	6.3E+04	2E-05	8E-10
24509 RAVENNA AVE	Tetrachloroethene	1.3E+01	5.5E+07	6.6E+06	2E-07	2E-11
24509 RAVENNA AVE	Toluene	5.2E+01	3.7E+09	--	1E-08	--
24512 MARBELLA AVE	Chloroform	2.3E+00	9.0E+07	4.9E+06	3E-08	5E-12
24512 MARBELLA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24512 MARBELLA AVE	Methylene Chloride	6.2E+00	6.1E+08	2.8E+07	1E-08	2E-12
24512 MARBELLA AVE	Naphthalene	4.5E+00	2.3E+05	6.3E+04	2E-05	7E-10
24512 MARBELLA AVE	Toluene	2.0E+01	3.7E+09	--	5E-09	--
24512 NEPTUNE AVE	Ethanol	5.6E+01	1.9E+08	--	3E-07	--
24512 NEPTUNE AVE	Isopropanol	1.2E+01	5.7E+08	--	2E-08	--
24512 NEPTUNE AVE	Naphthalene	4.4E+00	2.3E+05	6.3E+04	2E-05	7E-10
24512 NEPTUNE AVE	Toluene	8.4E+00	3.7E+09	--	2E-09	--
24512 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	4.0E+01	1.1E+09	--	4E-08	--
24512 PANAMA AVE	2-Hexanone	3.3E+00	7.9E+06	--	4E-07	--
24512 PANAMA AVE	Chloroform	1.9E+01	9.0E+07	4.9E+06	2E-07	4E-11
24512 PANAMA AVE	Ethanol	1.1E+02	1.9E+08	--	6E-07	--
24512 PANAMA AVE	Isopropanol	8.1E+00	5.7E+08	--	1E-08	--
24512 PANAMA AVE	Naphthalene	3.0E+00	2.3E+05	6.3E+04	1E-05	5E-10
24512 PANAMA AVE	p/m-Xylene	6.6E+00	5.9E+07	--	1E-07	--
24512 PANAMA AVE	Toluene	5.5E+00	3.7E+09	--	2E-09	--
24512 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	2.1E+01	1.1E+09	--	2E-08	--
24512 RAVENNA AVE	Ethanol	5.1E+01	1.9E+08	--	3E-07	--
24512 RAVENNA AVE	Isopropanol	1.2E+01	5.7E+08	--	2E-08	--
24512 RAVENNA AVE	Naphthalene	2.7E+00	2.3E+05	6.3E+04	1E-05	4E-10
24513 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	9.9E+00	1.1E+09	--	9E-09	--
24513 NEPTUNE AVE	Carbon Disulfide	5.6E+00	1.4E+09	--	4E-09	--
24513 NEPTUNE AVE	Ethanol	1.0E+01	1.9E+08	--	5E-08	--
24513 NEPTUNE AVE	Naphthalene	1.0E+01	2.3E+05	6.3E+04	4E-05	2E-09
24513 NEPTUNE AVE	Toluene	5.9E+00	3.7E+09	--	2E-09	--
24513 PANAMA AVE	1,2,4-Trimethylbenzene	1.0E+01	2.3E+06	--	4E-06	--
24513 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.5E+00	1.1E+09	--	6E-09	--
24513 PANAMA AVE	4-Ethyltoluene	7.7E+00	2.5E+07	--	3E-07	--
24513 PANAMA AVE	Ethanol	9.7E+00	1.9E+08	--	5E-08	--
24513 PANAMA AVE	Naphthalene	7.0E+00	2.3E+05	6.3E+04	3E-05	1E-09
24513 PANAMA AVE	o-Xylene	6.8E+00	5.9E+07	--	1E-07	--
24513 PANAMA AVE	p/m-Xylene	1.4E+01	5.9E+07	--	2E-07	--
24513 PANAMA AVE	Toluene	5.0E+00	3.7E+09	--	1E-09	--
24513 RAVENNA AVE	1,2,4-Trimethylbenzene	9.7E+00	2.3E+06	--	4E-06	--
24513 RAVENNA AVE	1,3-Butadiene	2.2E+00	3.7E+06	3.0E+05	6E-07	7E-11
24513 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	1.1E+09	--	2E-08	--
24513 RAVENNA AVE	Benzene	5.7E+01	3.2E+07	1.0E+06	2E-06	6E-10
24513 RAVENNA AVE	Cumene (Isopropylbenzene)	6.2E+01	1.5E+09	--	4E-08	--
24513 RAVENNA AVE	Cyclohexane	2.8E+01	1.8E+10	--	2E-09	--
24513 RAVENNA AVE	Ethanol	1.1E+02	1.9E+08	--	6E-07	--
24513 RAVENNA AVE	Ethylbenzene	1.1E+01	6.3E+08	7.0E+06	2E-08	2E-11
24513 RAVENNA AVE	Heptane	7.5E+00	2.3E+09	--	3E-09	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24513 RAVENNA AVE	Hexane	8.3E+00	1.7E+09	--	5E-09	--
24513 RAVENNA AVE	Isopropanol	2.3E+01	5.7E+08	--	4E-08	--
24513 RAVENNA AVE	Naphthalene	3.0E+00	2.3E+05	6.3E+04	1E-05	5E-10
24513 RAVENNA AVE	p/m-Xylene	1.8E+01	5.9E+07	--	3E-07	--
24513 RAVENNA AVE	Toluene	1.1E+01	3.7E+09	--	3E-09	--
24516 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.4E+01	1.1E+09	--	1E-08	--
24516 MARBELLA AVE	Benzene	9.2E+00	3.2E+07	1.0E+06	3E-07	9E-11
24516 MARBELLA AVE	Carbon Disulfide	5.0E+00	1.4E+09	--	4E-09	--
24516 MARBELLA AVE	Ethanol	8.7E+01	1.9E+08	--	5E-07	--
24516 MARBELLA AVE	Heptane	6.8E+00	2.3E+09	--	3E-09	--
24516 MARBELLA AVE	Naphthalene	1.4E+01	2.3E+05	6.3E+04	6E-05	2E-09
24516 MARBELLA AVE	Toluene	1.0E+01	3.7E+09	--	3E-09	--
24517 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	3.0E+01	1.1E+09	--	3E-08	--
24517 MARBELLA AVE	2-Hexanone	4.2E+01	7.9E+06	--	5E-06	--
24517 MARBELLA AVE	Benzene	6.4E+00	3.2E+07	1.0E+06	2E-07	6E-11
24517 MARBELLA AVE	Carbon Disulfide	4.2E+01	1.4E+09	--	3E-08	--
24517 MARBELLA AVE	Ethanol	6.6E+01	1.9E+08	--	3E-07	--
24517 MARBELLA AVE	Ethylbenzene	4.9E+00	6.3E+08	7.0E+06	8E-09	7E-12
24517 MARBELLA AVE	Naphthalene	4.8E+00	2.3E+05	6.3E+04	2E-05	8E-10
24517 MARBELLA AVE	o-Xylene	6.5E+00	5.9E+07	--	1E-07	--
24517 MARBELLA AVE	p/m-Xylene	1.6E+01	5.9E+07	--	3E-07	--
24517 MARBELLA AVE	Tetrachloroethene	6.6E+01	5.5E+07	6.6E+06	1E-06	1E-10
24517 MARBELLA AVE	Tetrahydrofuran	8.3E+00	4.9E+08	--	2E-08	--
24517 MARBELLA AVE	Toluene	4.5E+01	3.7E+09	--	1E-08	--
24518 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	1.1E+09	--	9E-09	--
24518 NEPTUNE AVE	Benzene	1.8E+01	3.2E+07	1.0E+06	6E-07	2E-10
24518 NEPTUNE AVE	Chloroform	9.7E+02	9.0E+07	4.9E+06	1E-05	2E-09
24518 NEPTUNE AVE	Cumene (Isopropylbenzene)	6.0E+00	1.5E+09	--	4E-09	--
24518 NEPTUNE AVE	Ethanol	1.5E+01	1.9E+08	--	8E-08	--
24518 NEPTUNE AVE	Naphthalene	4.0E+00	2.3E+05	6.3E+04	2E-05	6E-10
24518 NEPTUNE AVE	Tetrachloroethene	9.3E+00	5.5E+07	6.6E+06	2E-07	1E-11
24518 NEPTUNE AVE	Tetrahydrofuran	1.2E+01	4.9E+08	--	3E-08	--
24518 NEPTUNE AVE	Toluene	5.2E+00	3.7E+09	--	1E-09	--
24518 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	4.1E+00	1.1E+09	--	4E-09	--
24518 PANAMA AVE	Bromomethane	4.7E+00	9.5E+06	--	5E-07	--
24518 PANAMA AVE	Carbon Disulfide	3.2E+01	1.4E+09	--	2E-08	--
24518 PANAMA AVE	Heptane	5.1E+00	2.3E+09	--	2E-09	--
24518 PANAMA AVE	Hexane	6.0E+00	1.7E+09	--	4E-09	--
24518 PANAMA AVE	Naphthalene	4.1E+00	2.3E+05	6.3E+04	2E-05	7E-10
24518 PANAMA AVE	p/m-Xylene	8.4E+00	5.9E+07	--	1E-07	--
24518 PANAMA AVE	Toluene	6.8E+00	3.7E+09	--	2E-09	--
24518 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24518 RAVENNA AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24518 RAVENNA AVE	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
24518 RAVENNA AVE	Naphthalene	7.9E+00	2.3E+05	6.3E+04	3E-05	1E-09
24518 RAVENNA AVE	Tetrachloroethene	3.7E+01	5.5E+07	6.6E+06	7E-07	6E-11
24518 RAVENNA AVE	Toluene	1.0E+01	3.7E+09	--	3E-09	--
24519 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	1.1E+09	--	1E-08	--
24519 NEPTUNE AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24519 NEPTUNE AVE	Methylene Chloride	4.3E+00	6.1E+08	2.8E+07	7E-09	2E-12
24519 PANAMA AVE	1,4-Dioxane	1.6E+00	1.3E+08	1.6E+05	1E-08	1E-10
24519 PANAMA AVE	Chloroform	9.3E+00	9.0E+07	4.9E+06	1E-07	2E-11
24519 PANAMA AVE	Isopropanol	4.0E+00	5.7E+08	--	7E-09	--
24519 PANAMA AVE	Naphthalene	4.6E+00	2.3E+05	6.3E+04	2E-05	7E-10
24519 PANAMA AVE	Toluene	1.8E+01	3.7E+09	--	5E-09	--
24522 MARBELLA AVE	1,4-Dioxane	2.7E+01	1.3E+08	1.6E+05	2E-07	2E-09
24522 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.4E+01	1.1E+09	--	1E-08	--
24522 MARBELLA AVE	Benzene	1.3E+01	3.2E+07	1.0E+06	4E-07	1E-10
24522 MARBELLA AVE	Bromomethane	6.5E+00	9.5E+06	--	7E-07	--
24522 MARBELLA AVE	Ethanol	1.8E+01	1.9E+08	--	9E-08	--

**Appendix E
Detailed Risk Calculations**

**Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air**

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24522 MARBELLA AVE	Ethylbenzene	1.1E+01	6.3E+08	7.0E+06	2E-08	2E-11
24522 MARBELLA AVE	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
24522 MARBELLA AVE	Naphthalene	5.7E+00	2.3E+05	6.3E+04	3E-05	9E-10
24522 MARBELLA AVE	p/m-Xylene	1.9E+01	5.9E+07	--	3E-07	--
24522 MARBELLA AVE	Toluene	2.3E+01	3.7E+09	--	6E-09	--
24522 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	6.8E+00	1.1E+09	--	6E-09	--
24522 NEPTUNE AVE	4-Ethyltoluene	7.2E+00	2.5E+07	--	3E-07	--
24522 NEPTUNE AVE	Bromomethane	1.0E+01	9.5E+06	--	1E-06	--
24522 NEPTUNE AVE	Carbon Disulfide	1.1E+01	1.4E+09	--	8E-09	--
24522 NEPTUNE AVE	Ethanol	1.5E+01	1.9E+08	--	8E-08	--
24522 NEPTUNE AVE	Isopropanol	2.1E+01	5.7E+08	--	4E-08	--
24522 NEPTUNE AVE	Naphthalene	2.3E+00	2.3E+05	6.3E+04	1E-05	4E-10
24522 NEPTUNE AVE	Tetrahydrofuran	3.9E+00	4.9E+08	--	8E-09	--
24522 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	1.1E+09	--	1E-08	--
24522 PANAMA AVE	Chloroform	3.4E+01	9.0E+07	4.9E+06	4E-07	7E-11
24522 PANAMA AVE	Ethanol	1.0E+01	1.9E+08	--	5E-08	--
24522 PANAMA AVE	Hexane	6.0E+00	1.7E+09	--	4E-09	--
24522 PANAMA AVE	Isopropanol	1.1E+02	5.7E+08	--	2E-07	--
24522 PANAMA AVE	Naphthalene	1.6E+00	2.3E+05	6.3E+04	7E-06	3E-10
24522 PANAMA AVE	Toluene	1.2E+01	3.7E+09	--	3E-09	--
24522 RAVENNA AVE	Bromodichloromethane	2.9E+01	7.2E+07	7.8E+05	4E-07	4E-10
24522 RAVENNA AVE	Chloroform	2.1E+01	9.0E+07	4.9E+06	2E-07	4E-11
24522 RAVENNA AVE	Heptane	5.1E+00	2.3E+09	--	2E-09	--
24522 RAVENNA AVE	Hexane	5.5E+00	1.7E+09	--	3E-09	--
24522 RAVENNA AVE	Isopropanol	3.1E+01	5.7E+08	--	6E-08	--
24522 RAVENNA AVE	Naphthalene	1.3E+00	2.3E+05	6.3E+04	6E-06	2E-10
24523 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	8.3E+00	1.1E+09	--	7E-09	--
24523 MARBELLA AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24523 MARBELLA AVE	Naphthalene	8.5E+00	2.3E+05	6.3E+04	4E-05	1E-09
24523 MARBELLA AVE	p/m-Xylene	5.4E+00	5.9E+07	--	9E-08	--
24523 MARBELLA AVE	Tetrachloroethene	1.9E+02	5.5E+07	6.6E+06	3E-06	3E-10
24523 MARBELLA AVE	Toluene	7.9E+00	3.7E+09	--	2E-09	--
24523 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.0E+01	1.1E+09	--	2E-08	--
24523 NEPTUNE AVE	2-Hexanone	2.2E+00	7.9E+06	--	3E-07	--
24523 NEPTUNE AVE	Ethanol	1.4E+01	1.9E+08	--	7E-08	--
24523 NEPTUNE AVE	Hexane	4.1E+00	1.7E+09	--	3E-09	--
24523 NEPTUNE AVE	Naphthalene	3.7E+00	2.3E+05	6.3E+04	2E-05	6E-10
24523 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	2.0E+01	1.1E+09	--	2E-08	--
24523 RAVENNA AVE	2-Hexanone	1.0E+00	7.9E+06	--	1E-07	--
24523 RAVENNA AVE	Benzene	2.6E+01	3.2E+07	1.0E+06	8E-07	3E-10
24523 RAVENNA AVE	Bromodichloromethane	1.2E+01	7.2E+07	7.8E+05	2E-07	2E-10
24523 RAVENNA AVE	Chloroform	6.8E+02	9.0E+07	4.9E+06	8E-06	1E-09
24523 RAVENNA AVE	Cumene (Isopropylbenzene)	1.6E+01	1.5E+09	--	1E-08	--
24523 RAVENNA AVE	Cyclohexane	3.2E+01	1.8E+10	--	2E-09	--
24523 RAVENNA AVE	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
24523 RAVENNA AVE	Isopropanol	9.5E-01	5.7E+08	--	2E-09	--
24523 RAVENNA AVE	Methylene Chloride	4.2E+00	6.1E+08	2.8E+07	7E-09	2E-12
24523 RAVENNA AVE	Naphthalene	8.9E+00	2.3E+05	6.3E+04	4E-05	1E-09
24523 RAVENNA AVE	Trichloroethene	2.6E+01	2.0E+06	6.7E+06	1E-05	4E-11
24526 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.2E+00	1.1E+09	--	4E-09	--
24526 MARBELLA AVE	Benzene	6.5E+00	3.2E+07	1.0E+06	2E-07	6E-11
24526 MARBELLA AVE	Ethanol	1.9E+01	1.9E+08	--	1E-07	--
24526 MARBELLA AVE	Naphthalene	2.7E+00	2.3E+05	6.3E+04	1E-05	4E-10
24526 MARBELLA AVE	Toluene	5.2E+00	3.7E+09	--	1E-09	--
24528 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.5E+00	1.1E+09	--	4E-09	--
24528 NEPTUNE AVE	Chloroform	6.0E+00	9.0E+07	4.9E+06	7E-08	1E-11
24528 NEPTUNE AVE	Ethanol	2.7E+01	1.9E+08	--	1E-07	--
24528 NEPTUNE AVE	Heptane	4.9E+00	2.3E+09	--	2E-09	--
24528 NEPTUNE AVE	Hexane	4.0E+00	1.7E+09	--	2E-09	--
24528 NEPTUNE AVE	Naphthalene	1.0E+01	2.3E+05	6.3E+04	4E-05	2E-09

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Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24528 NEPTUNE AVE	p/m-Xylene	4.7E+00	5.9E+07	--	8E-08	--
24528 NEPTUNE AVE	Tetrachloroethene	1.1E+01	5.5E+07	6.6E+06	2E-07	2E-11
24528 NEPTUNE AVE	Tetrahydrofuran	2.1E+01	4.9E+08	--	4E-08	--
24528 PANAMA AVE	Naphthalene	4.0E+00	2.3E+05	6.3E+04	2E-05	6E-10
24529 NEPTUNE AVE	1,2,4-Trimethylbenzene	5.2E+00	2.3E+06	--	2E-06	--
24529 NEPTUNE AVE	1,4-Dioxane	2.2E+01	1.3E+08	1.6E+05	2E-07	1E-09
24529 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	3.8E+01	1.1E+09	--	3E-08	--
24529 NEPTUNE AVE	Bromodichloromethane	1.4E+01	7.2E+07	7.8E+05	2E-07	2E-10
24529 NEPTUNE AVE	Chloroform	5.7E+01	9.0E+07	4.9E+06	6E-07	1E-10
24529 NEPTUNE AVE	Ethanol	1.8E+01	1.9E+08	--	9E-08	--
24529 NEPTUNE AVE	Naphthalene	7.7E+00	2.3E+05	6.3E+04	3E-05	1E-09
24529 NEPTUNE AVE	p/m-Xylene	3.7E+00	5.9E+07	--	6E-08	--
24529 NEPTUNE AVE	Tetrachloroethene	8.2E+01	5.5E+07	6.6E+06	2E-06	1E-10
24529 NEPTUNE AVE	Tetrahydrofuran	1.6E+01	4.9E+08	--	3E-08	--
24529 PANAMA AVE	1,4-Dioxane	1.9E+00	1.3E+08	1.6E+05	1E-08	1E-10
24529 PANAMA AVE	Naphthalene	1.5E+00	2.3E+05	6.3E+04	7E-06	2E-10
24529 PANAMA AVE	Toluene	5.1E+00	3.7E+09	--	1E-09	--
24529 RAVENNA AVE	Chloroform	1.7E+01	9.0E+07	4.9E+06	2E-07	4E-11
24529 RAVENNA AVE	Isopropanol	5.7E+00	5.7E+08	--	1E-08	--
24529 RAVENNA AVE	Naphthalene	4.2E+00	2.3E+05	6.3E+04	2E-05	7E-10
24529 RAVENNA AVE	p/m-Xylene	5.0E+00	5.9E+07	--	8E-08	--
24529 RAVENNA AVE	Tetrachloroethene	9.5E+00	5.5E+07	6.6E+06	2E-07	1E-11
24532 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	3.7E+00	1.1E+09	--	3E-09	--
24532 MARBELLA AVE	2-Hexanone	8.9E-01	7.9E+06	--	1E-07	--
24532 MARBELLA AVE	Benzene	1.2E+01	3.2E+07	1.0E+06	4E-07	1E-10
24532 MARBELLA AVE	Bromodichloromethane	9.2E-01	7.2E+07	7.8E+05	1E-08	1E-11
24532 MARBELLA AVE	Carbon Disulfide	4.9E+00	1.4E+09	--	3E-09	--
24532 MARBELLA AVE	Chloroform	6.5E+00	9.0E+07	4.9E+06	7E-08	1E-11
24532 MARBELLA AVE	Cumene (Isopropylbenzene)	1.9E+00	1.5E+09	--	1E-09	--
24532 MARBELLA AVE	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
24532 MARBELLA AVE	Isopropanol	8.7E+00	5.7E+08	--	2E-08	--
24532 MARBELLA AVE	Naphthalene	1.2E+00	2.3E+05	6.3E+04	5E-06	2E-10
24532 MARBELLA AVE	Tetrachloroethene	3.5E+00	5.5E+07	6.6E+06	6E-08	5E-12
24532 MARBELLA AVE	Toluene	1.9E+00	3.7E+09	--	5E-10	--
24532 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.2E+01	2.3E+06	--	5E-06	--
24532 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+01	1.1E+09	--	2E-08	--
24532 NEPTUNE AVE	4-Ethyltoluene	1.6E+01	2.5E+07	--	7E-07	--
24532 NEPTUNE AVE	Benzene	2.8E+01	3.2E+07	1.0E+06	9E-07	3E-10
24532 NEPTUNE AVE	Cyclohexane	4.2E+01	1.8E+10	--	2E-09	--
24532 NEPTUNE AVE	Ethanol	1.3E+02	1.9E+08	--	7E-07	--
24532 NEPTUNE AVE	Ethylbenzene	1.4E+01	6.3E+08	7.0E+06	2E-08	2E-11
24532 NEPTUNE AVE	Heptane	1.1E+01	2.3E+09	--	5E-09	--
24532 NEPTUNE AVE	Hexane	6.5E+00	1.7E+09	--	4E-09	--
24532 NEPTUNE AVE	Isopropanol	8.5E+01	5.7E+08	--	2E-07	--
24532 NEPTUNE AVE	Methyl-tert-Butyl Ether	1.0E+01	1.8E+09	6.5E+07	6E-09	2E-12
24532 NEPTUNE AVE	Naphthalene	4.6E+00	2.3E+05	6.3E+04	2E-05	7E-10
24532 NEPTUNE AVE	o-Xylene	1.8E+01	5.9E+07	--	3E-07	--
24532 NEPTUNE AVE	p/m-Xylene	5.3E+01	5.9E+07	--	9E-07	--
24532 NEPTUNE AVE	Toluene	1.1E+02	3.7E+09	--	3E-08	--
24532 PANAMA AVE	Chloroform	6.1E+01	9.0E+07	4.9E+06	7E-07	1E-10
24532 PANAMA AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24532 PANAMA AVE	Isopropanol	6.3E+00	5.7E+08	--	1E-08	--
24532 PANAMA AVE	Naphthalene	5.7E+00	2.3E+05	6.3E+04	3E-05	9E-10
24532 RAVENNA AVE	1,4-Dichlorobenzene	1.6E+01	2.3E+08	7.2E+05	7E-08	2E-10
24532 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	7.3E+00	1.1E+09	--	6E-09	--
24532 RAVENNA AVE	Carbon Disulfide	4.3E+00	1.4E+09	--	3E-09	--
24532 RAVENNA AVE	Ethanol	2.1E+01	1.9E+08	--	1E-07	--
24532 RAVENNA AVE	Isopropanol	1.3E+01	5.7E+08	--	2E-08	--
24532 RAVENNA AVE	Naphthalene	2.6E+00	2.3E+05	6.3E+04	1E-05	4E-10
24533 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	2.5E+01	1.1E+09	--	2E-08	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24533 MARBELLA AVE	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
24533 MARBELLA AVE	Naphthalene	9.7E-01	2.3E+05	6.3E+04	4E-06	2E-10
24533 MARBELLA AVE	Tetrachloroethene	2.3E+01	5.5E+07	6.6E+06	4E-07	4E-11
24533 MARBELLA AVE	Tetrahydrofuran	4.5E+00	4.9E+08	--	9E-09	--
24533 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+01	1.1E+09	--	2E-08	--
24533 NEPTUNE AVE	Chloroform	8.9E+01	9.0E+07	4.9E+06	1E-06	2E-10
24533 NEPTUNE AVE	Naphthalene	1.4E+00	2.3E+05	6.3E+04	6E-06	2E-10
24533 PANAMA AVE	Naphthalene	2.9E+00	2.3E+05	6.3E+04	1E-05	5E-10
24533 RAVENNA AVE	Ethanol	1.5E+01	1.9E+08	--	8E-08	--
24533 RAVENNA AVE	Heptane	9.4E+00	2.3E+09	--	4E-09	--
24533 RAVENNA AVE	Hexane	1.2E+01	1.7E+09	--	7E-09	--
24533 RAVENNA AVE	Isopropanol	1.8E+01	5.7E+08	--	3E-08	--
24533 RAVENNA AVE	Naphthalene	8.2E+00	2.3E+05	6.3E+04	4E-05	1E-09
24533 RAVENNA AVE	Tetrahydrofuran	6.3E+00	4.9E+08	--	1E-08	--
24602 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.1E+00	1.1E+09	--	4E-09	--
24602 MARBELLA AVE	Benzene	3.6E+00	3.2E+07	1.0E+06	1E-07	4E-11
24602 MARBELLA AVE	Chloroform	1.4E+01	9.0E+07	4.9E+06	2E-07	3E-11
24602 MARBELLA AVE	Cyclohexane	4.2E+00	1.8E+10	--	2E-10	--
24602 MARBELLA AVE	Isopropanol	9.6E+00	5.7E+08	--	2E-08	--
24602 MARBELLA AVE	Naphthalene	1.5E+00	2.3E+05	6.3E+04	7E-06	2E-10
24602 MARBELLA AVE	Toluene	3.2E+01	3.7E+09	--	9E-09	--
24602 NEPTUNE AVE	1,4-Dioxane	1.2E+02	1.3E+08	1.6E+05	9E-07	7E-09
24602 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	9.5E+00	1.1E+09	--	8E-09	--
24602 NEPTUNE AVE	Benzene	9.2E+00	3.2E+07	1.0E+06	3E-07	9E-11
24602 NEPTUNE AVE	Ethanol	1.0E+01	1.9E+08	--	5E-08	--
24602 NEPTUNE AVE	Naphthalene	1.6E+00	2.3E+05	6.3E+04	7E-06	3E-10
24602 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.7E+01	1.1E+09	--	2E-08	--
24602 PANAMA AVE	Ethanol	2.3E+01	1.9E+08	--	1E-07	--
24602 PANAMA AVE	Naphthalene	5.6E+00	2.3E+05	6.3E+04	2E-05	9E-10
24602 RAVENNA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24602 RAVENNA AVE	Hexane	5.5E+00	1.7E+09	--	3E-09	--
24602 RAVENNA AVE	Naphthalene	5.0E+00	2.3E+05	6.3E+04	2E-05	8E-10
24602 RAVENNA AVE	Tetrachloroethene	1.4E+01	5.5E+07	6.6E+06	3E-07	2E-11
24603 MARBELLA AVE	1,2,4-Trimethylbenzene	2.2E+03	2.3E+06	--	1E-03	--
24603 MARBELLA AVE	1,3,5-Trimethylbenzene	1.0E+03	2.3E+06	--	4E-04	--
24603 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	6.4E+01	1.1E+09	--	6E-08	--
24603 MARBELLA AVE	4-Ethyltoluene	1.3E+03	2.5E+07	--	5E-05	--
24603 MARBELLA AVE	Benzene	4.5E+03	3.2E+07	1.0E+06	1E-04	4E-08
24603 MARBELLA AVE	Bromodichloromethane	1.6E+01	7.2E+07	7.8E+05	2E-07	2E-10
24603 MARBELLA AVE	Chloroform	1.4E+02	9.0E+07	4.9E+06	2E-06	3E-10
24603 MARBELLA AVE	Cumene (Isopropylbenzene)	4.0E+01	1.5E+09	--	3E-08	--
24603 MARBELLA AVE	Cyclohexane	6.4E+01	1.8E+10	--	4E-09	--
24603 MARBELLA AVE	Ethanol	2.5E+01	1.9E+08	--	1E-07	--
24603 MARBELLA AVE	Ethylbenzene	1.1E+03	6.3E+08	7.0E+06	2E-06	2E-09
24603 MARBELLA AVE	Heptane	4.0E+02	2.3E+09	--	2E-07	--
24603 MARBELLA AVE	Hexane	5.2E+02	1.7E+09	--	3E-07	--
24603 MARBELLA AVE	Naphthalene	1.3E+01	2.3E+05	6.3E+04	6E-05	2E-09
24603 MARBELLA AVE	o-Xylene	4.2E+01	5.9E+07	--	7E-07	--
24603 MARBELLA AVE	p/m-Xylene	5.2E+03	5.9E+07	--	9E-05	--
24603 MARBELLA AVE	Propylbenzene	2.8E+02	6.6E+08	--	4E-07	--
24603 MARBELLA AVE	Tetrachloroethene	1.4E+01	5.5E+07	6.6E+06	3E-07	2E-11
24603 MARBELLA AVE	Toluene	7.0E+02	3.7E+09	--	2E-07	--
24603 NEPTUNE AVE	Naphthalene	2.2E+00	2.3E+05	6.3E+04	1E-05	4E-10
24603 NEPTUNE AVE	Toluene	6.1E+00	3.7E+09	--	2E-09	--
24603 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.5E+00	1.1E+09	--	6E-09	--
24603 PANAMA AVE	Carbon Disulfide	4.8E+00	1.4E+09	--	3E-09	--
24603 PANAMA AVE	Chloroform	1.7E+01	9.0E+07	4.9E+06	2E-07	4E-11
24603 PANAMA AVE	Naphthalene	3.9E+00	2.3E+05	6.3E+04	2E-05	6E-10
24603 PANAMA AVE	Tetrahydrofuran	1.5E+01	4.9E+08	--	3E-08	--
24603 PANAMA AVE	Toluene	6.8E+00	3.7E+09	--	2E-09	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24603 RAVENNA AVE	1,2,4-Trimethylbenzene	1.0E+01	2.3E+06	--	4E-06	--
24603 RAVENNA AVE	2,2,4-Trimethylpentane	2.1E+00	6.5E+08	--	3E-09	--
24603 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	4.0E+01	1.1E+09	--	4E-08	--
24603 RAVENNA AVE	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
24603 RAVENNA AVE	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
24603 RAVENNA AVE	Naphthalene	4.8E+00	2.3E+05	6.3E+04	2E-05	8E-10
24603 RAVENNA AVE	p/m-Xylene	9.9E+00	5.9E+07	--	2E-07	--
24603 RAVENNA AVE	Toluene	8.7E+01	3.7E+09	--	2E-08	--
24606 MARBELLA AVE	1,2,4-Trimethylbenzene	4.0E+00	2.3E+06	--	2E-06	--
24606 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+00	1.1E+09	--	6E-09	--
24606 MARBELLA AVE	Carbon Disulfide	7.0E+00	1.4E+09	--	5E-09	--
24606 MARBELLA AVE	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
24606 MARBELLA AVE	Naphthalene	5.2E+00	2.3E+05	6.3E+04	2E-05	8E-10
24606 MARBELLA AVE	p/m-Xylene	3.9E+00	5.9E+07	--	7E-08	--
24606 MARBELLA AVE	Tetrachloroethene	8.6E+00	5.5E+07	6.6E+06	2E-07	1E-11
24606 MARBELLA AVE	Toluene	1.4E+01	3.7E+09	--	4E-09	--
24607 MARBELLA AVE	1,4-Dioxane	5.4E+01	1.3E+08	1.6E+05	4E-07	3E-09
24607 MARBELLA AVE	Chloroform	1.5E+01	9.0E+07	4.9E+06	2E-07	3E-11
24607 MARBELLA AVE	Isopropanol	2.3E+01	5.7E+08	--	4E-08	--
24607 MARBELLA AVE	Naphthalene	2.3E+00	2.3E+05	6.3E+04	1E-05	4E-10
24608 NEPTUNE AVE	2,2,4-Trimethylpentane	1.3E+01	6.5E+08	--	2E-08	--
24608 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	8.6E+00	1.1E+09	--	8E-09	--
24608 NEPTUNE AVE	Benzene	5.3E+01	3.2E+07	1.0E+06	2E-06	5E-10
24608 NEPTUNE AVE	Carbon Disulfide	6.0E+00	1.4E+09	--	4E-09	--
24608 NEPTUNE AVE	Chloroform	5.2E+01	9.0E+07	4.9E+06	6E-07	1E-10
24608 NEPTUNE AVE	Cyclohexane	4.1E+00	1.8E+10	--	2E-10	--
24608 NEPTUNE AVE	Ethanol	1.7E+02	1.9E+08	--	9E-07	--
24608 NEPTUNE AVE	Heptane	1.1E+01	2.3E+09	--	5E-09	--
24608 NEPTUNE AVE	Hexane	1.5E+01	1.7E+09	--	9E-09	--
24608 NEPTUNE AVE	Isopropanol	3.7E+01	5.7E+08	--	7E-08	--
24608 NEPTUNE AVE	Methylene Chloride	7.5E+00	6.1E+08	2.8E+07	1E-08	3E-12
24608 NEPTUNE AVE	Naphthalene	3.6E+00	2.3E+05	6.3E+04	2E-05	6E-10
24608 NEPTUNE AVE	Toluene	3.1E+01	3.7E+09	--	8E-09	--
24608 PANAMA AVE	1,2,4-Trimethylbenzene	7.5E+00	2.3E+06	--	3E-06	--
24608 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.5E+00	1.1E+09	--	6E-09	--
24608 PANAMA AVE	Benzene	9.6E+00	3.2E+07	1.0E+06	3E-07	9E-11
24608 PANAMA AVE	Bromodichloromethane	1.2E+01	7.2E+07	7.8E+05	2E-07	2E-10
24608 PANAMA AVE	Chloroform	1.1E+03	9.0E+07	4.9E+06	1E-05	2E-09
24608 PANAMA AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24608 PANAMA AVE	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
24608 PANAMA AVE	Naphthalene	1.6E+01	2.3E+05	6.3E+04	7E-05	3E-09
24608 PANAMA AVE	Tetrachloroethene	9.8E+01	5.5E+07	6.6E+06	2E-06	2E-10
24608 PANAMA AVE	Toluene	1.4E+01	3.7E+09	--	4E-09	--
24608 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	8.2E+00	1.1E+09	--	7E-09	--
24608 RAVENNA AVE	Benzene	2.1E+01	3.2E+07	1.0E+06	7E-07	2E-10
24608 RAVENNA AVE	Carbon Disulfide	7.2E+01	1.4E+09	--	5E-08	--
24608 RAVENNA AVE	Chloroform	1.3E+01	9.0E+07	4.9E+06	1E-07	3E-11
24608 RAVENNA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24608 RAVENNA AVE	Naphthalene	2.1E+00	2.3E+05	6.3E+04	9E-06	3E-10
24608 RAVENNA AVE	Toluene	3.3E+00	3.7E+09	--	9E-10	--
24608 RAVENNA AVE	trans-1,3-Dichloropropene	8.4E+00	4.4E+07	3.9E+06	2E-07	2E-11
24609 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	5.1E+00	1.1E+09	--	4E-09	--
24609 NEPTUNE AVE	Benzene	5.2E+00	3.2E+07	1.0E+06	2E-07	5E-11
24609 NEPTUNE AVE	Carbon Disulfide	6.7E+00	1.4E+09	--	5E-09	--
24609 NEPTUNE AVE	Carbon Tetrachloride	2.1E+01	1.6E+08	1.1E+06	1E-07	2E-10
24609 NEPTUNE AVE	Chloroform	6.4E+00	9.0E+07	4.9E+06	7E-08	1E-11
24609 NEPTUNE AVE	Ethanol	7.7E+01	1.9E+08	--	4E-07	--
24609 NEPTUNE AVE	Isopropanol	3.3E+01	5.7E+08	--	6E-08	--
24609 NEPTUNE AVE	Naphthalene	2.1E+00	2.3E+05	6.3E+04	9E-06	3E-10
24609 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	8.8E+00	1.1E+09	--	8E-09	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24609 PANAMA AVE	Benzene	5.7E+00	3.2E+07	1.0E+06	2E-07	6E-11
24609 PANAMA AVE	Bromomethane	1.0E+01	9.5E+06	--	1E-06	--
24609 PANAMA AVE	Carbon Disulfide	6.0E+00	1.4E+09	--	4E-09	--
24609 PANAMA AVE	Carbon Tetrachloride	9.9E+01	1.6E+08	1.1E+06	6E-07	9E-10
24609 PANAMA AVE	Chloroform	2.9E+01	9.0E+07	4.9E+06	3E-07	6E-11
24609 PANAMA AVE	Ethanol	5.4E+01	1.9E+08	--	3E-07	--
24609 PANAMA AVE	Isopropanol	1.3E+01	5.7E+08	--	2E-08	--
24609 PANAMA AVE	Naphthalene	3.0E+01	2.3E+05	6.3E+04	1E-04	5E-09
24609 PANAMA AVE	Tetrachloroethene	3.9E+01	5.5E+07	6.6E+06	7E-07	6E-11
24609 PANAMA AVE	Toluene	1.2E+01	3.7E+09	--	3E-09	--
24609 RAVENNA AVE	Carbon Disulfide	5.2E+00	1.4E+09	--	4E-09	--
24609 RAVENNA AVE	Ethanol	1.8E+01	1.9E+08	--	9E-08	--
24609 RAVENNA AVE	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
24609 RAVENNA AVE	Naphthalene	2.3E+00	2.3E+05	6.3E+04	1E-05	4E-10
24612 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24612 MARBELLA AVE	Bromodichloromethane	1.6E+01	7.2E+07	7.8E+05	2E-07	2E-10
24612 MARBELLA AVE	Chloroform	3.2E+01	9.0E+07	4.9E+06	4E-07	7E-11
24612 MARBELLA AVE	Ethanol	2.6E+01	1.9E+08	--	1E-07	--
24612 NEPTUNE AVE	2,2,4-Trimethylpentane	7.6E+00	6.5E+08	--	1E-08	--
24612 NEPTUNE AVE	Chloroform	6.4E+00	9.0E+07	4.9E+06	7E-08	1E-11
24612 NEPTUNE AVE	Hexane	5.7E+00	1.7E+09	--	3E-09	--
24612 NEPTUNE AVE	Isopropanol	2.1E+01	5.7E+08	--	4E-08	--
24612 NEPTUNE AVE	Methylene Chloride	4.5E+00	6.1E+08	2.8E+07	7E-09	2E-12
24612 NEPTUNE AVE	Naphthalene	2.0E+00	2.3E+05	6.3E+04	9E-06	3E-10
24612 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	1.1E+09	--	2E-08	--
24612 PANAMA AVE	Chloroform	1.0E+01	9.0E+07	4.9E+06	1E-07	2E-11
24612 PANAMA AVE	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
24612 PANAMA AVE	Hexane	6.7E+00	1.7E+09	--	4E-09	--
24612 PANAMA AVE	Naphthalene	2.0E+00	2.3E+05	6.3E+04	9E-06	3E-10
24612 PANAMA AVE	Toluene	2.6E+02	3.7E+09	--	7E-08	--
24612 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	4.9E+00	1.1E+09	--	4E-09	--
24612 RAVENNA AVE	Chloroform	8.6E+00	9.0E+07	4.9E+06	1E-07	2E-11
24612 RAVENNA AVE	Ethanol	8.9E+00	1.9E+08	--	5E-08	--
24612 RAVENNA AVE	Naphthalene	5.5E+00	2.3E+05	6.3E+04	2E-05	9E-10
24612 RAVENNA AVE	Toluene	5.3E+00	3.7E+09	--	1E-09	--
24613 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	9.8E+00	1.1E+09	--	9E-09	--
24613 MARBELLA AVE	2-Hexanone	2.5E+00	7.9E+06	--	3E-07	--
24613 MARBELLA AVE	Carbon Disulfide	1.0E+02	1.4E+09	--	7E-08	--
24613 MARBELLA AVE	Ethanol	2.8E+01	1.9E+08	--	1E-07	--
24613 MARBELLA AVE	Ethylbenzene	3.2E+01	6.3E+08	7.0E+06	5E-08	5E-11
24613 MARBELLA AVE	Heptane	5.0E+00	2.3E+09	--	2E-09	--
24613 MARBELLA AVE	Hexane	5.7E+00	1.7E+09	--	3E-09	--
24613 MARBELLA AVE	Methylene Chloride	4.0E+00	6.1E+08	2.8E+07	7E-09	1E-12
24613 MARBELLA AVE	Naphthalene	2.2E+01	2.3E+05	6.3E+04	1E-04	4E-09
24613 MARBELLA AVE	Propylbenzene	1.4E+01	6.6E+08	--	2E-08	--
24613 NEPTUNE AVE	1,4-Dioxane	7.9E+01	1.3E+08	1.6E+05	6E-07	5E-09
24613 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24613 NEPTUNE AVE	Benzene	4.7E+00	3.2E+07	1.0E+06	2E-07	5E-11
24613 NEPTUNE AVE	Carbon Disulfide	1.5E+02	1.4E+09	--	1E-07	--
24613 NEPTUNE AVE	Chloroform	1.1E+01	9.0E+07	4.9E+06	1E-07	2E-11
24613 NEPTUNE AVE	Naphthalene	1.9E+00	2.3E+05	6.3E+04	8E-06	3E-10
24613 PANAMA AVE	1,2-Dichloroethane	4.9E+00	4.4E+06	8.5E+05	1E-06	6E-11
24613 PANAMA AVE	1,4-Dioxane	4.7E+01	1.3E+08	1.6E+05	4E-07	3E-09
24613 PANAMA AVE	2,2,4-Trimethylpentane	5.6E+00	6.5E+08	--	9E-09	--
24613 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	1.1E+09	--	2E-08	--
24613 PANAMA AVE	Benzene	6.6E+00	3.2E+07	1.0E+06	2E-07	7E-11
24613 PANAMA AVE	Bromomethane	6.0E+00	9.5E+06	--	6E-07	--
24613 PANAMA AVE	Carbon Disulfide	2.3E+02	1.4E+09	--	2E-07	--
24613 PANAMA AVE	Chloroform	6.4E+00	9.0E+07	4.9E+06	7E-08	1E-11
24613 PANAMA AVE	Ethanol	6.5E+01	1.9E+08	--	3E-07	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24613 PANAMA AVE	Heptane	1.6E+01	2.3E+09	--	7E-09	--
24613 PANAMA AVE	Hexane	1.4E+01	1.7E+09	--	9E-09	--
24613 PANAMA AVE	Isopropanol	1.3E+01	5.7E+08	--	2E-08	--
24613 PANAMA AVE	Methylene Chloride	5.6E+01	6.1E+08	2.8E+07	9E-08	2E-11
24613 PANAMA AVE	Naphthalene	4.5E+00	2.3E+05	6.3E+04	2E-05	7E-10
24613 PANAMA AVE	Tetrachloroethene	1.9E+02	5.5E+07	6.6E+06	3E-06	3E-10
24613 PANAMA AVE	Tetrahydrofuran	1.1E+01	4.9E+08	--	2E-08	--
24613 RAVENNA AVE	1,2,4-Trimethylbenzene	1.3E+01	2.3E+06	--	6E-06	--
24613 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	1.1E+09	--	9E-09	--
24613 RAVENNA AVE	4-Ethyltoluene	1.0E+01	2.5E+07	--	4E-07	--
24613 RAVENNA AVE	Benzene	4.2E+00	3.2E+07	1.0E+06	1E-07	4E-11
24613 RAVENNA AVE	Carbon Disulfide	5.8E+00	1.4E+09	--	4E-09	--
24613 RAVENNA AVE	Chloroform	3.8E+00	9.0E+07	4.9E+06	4E-08	8E-12
24613 RAVENNA AVE	cis-1,2-Dichloroethene	2.1E+01	8.3E+06	--	3E-06	--
24613 RAVENNA AVE	Cumene (Isopropylbenzene)	3.0E+00	1.5E+09	--	2E-09	--
24613 RAVENNA AVE	Ethanol	2.4E+01	1.9E+08	--	1E-07	--
24613 RAVENNA AVE	Ethylbenzene	7.6E+00	6.3E+08	7.0E+06	1E-08	1E-11
24613 RAVENNA AVE	Heptane	1.0E+01	2.3E+09	--	4E-09	--
24613 RAVENNA AVE	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
24613 RAVENNA AVE	Naphthalene	2.8E+00	2.3E+05	6.3E+04	1E-05	4E-10
24613 RAVENNA AVE	o-Xylene	1.1E+01	5.9E+07	--	2E-07	--
24613 RAVENNA AVE	p/m-Xylene	2.7E+01	5.9E+07	--	5E-07	--
24613 RAVENNA AVE	Tetrachloroethene	4.5E+01	5.5E+07	6.6E+06	8E-07	7E-11
24613 RAVENNA AVE	Toluene	3.5E+01	3.7E+09	--	1E-08	--
24616 MARBELLA AVE	1,4-Dichlorobenzene	8.4E+00	2.3E+08	7.2E+05	4E-08	1E-10
24616 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	5.2E+01	1.1E+09	--	5E-08	--
24616 MARBELLA AVE	Bromodichloromethane	3.7E+02	7.2E+07	7.8E+05	5E-06	5E-09
24616 MARBELLA AVE	Carbon Disulfide	4.2E+00	1.4E+09	--	3E-09	--
24616 MARBELLA AVE	Chloroform	1.9E+02	9.0E+07	4.9E+06	2E-06	4E-10
24616 MARBELLA AVE	Dibromochloromethane	1.1E+02	6.0E+07	8.8E+05	2E-06	1E-09
24616 MARBELLA AVE	Ethanol	3.3E+01	1.9E+08	--	2E-07	--
24616 MARBELLA AVE	Naphthalene	9.6E+00	2.3E+05	6.3E+04	4E-05	2E-09
24616 MARBELLA AVE	Tetrachloroethene	9.4E+00	5.5E+07	6.6E+06	2E-07	1E-11
24616 MARBELLA AVE	Tetrahydrofuran	8.4E+00	4.9E+08	--	2E-08	--
24616 MARBELLA AVE	Toluene	7.2E+00	3.7E+09	--	2E-09	--
24616 MARBELLA AVE	trans-1,3-Dichloropropene	7.4E+00	4.4E+07	3.9E+06	2E-07	2E-11
24616 MARBELLA AVE	Trichloroethene	6.8E+01	2.0E+06	6.7E+06	3E-05	1E-10
24617 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	3.0E+00	1.1E+09	--	3E-09	--
24617 MARBELLA AVE	Carbon Disulfide	6.8E+00	1.4E+09	--	5E-09	--
24617 MARBELLA AVE	Ethanol	2.2E+01	1.9E+08	--	1E-07	--
24617 MARBELLA AVE	Naphthalene	4.7E+00	2.3E+05	6.3E+04	2E-05	7E-10
24617 MARBELLA AVE	Tetrachloroethene	3.9E+01	5.5E+07	6.6E+06	7E-07	6E-11
24617 MARBELLA AVE	Toluene	5.5E+00	3.7E+09	--	2E-09	--
24618 NEPTUNE AVE	2,2,4-Trimethylpentane	1.2E+01	6.5E+08	--	2E-08	--
24618 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	7.5E+00	1.1E+09	--	7E-09	--
24618 NEPTUNE AVE	Benzene	7.0E+00	3.2E+07	1.0E+06	2E-07	7E-11
24618 NEPTUNE AVE	Carbon Disulfide	1.8E+01	1.4E+09	--	1E-08	--
24618 NEPTUNE AVE	Chloroform	2.4E+01	9.0E+07	4.9E+06	3E-07	5E-11
24618 NEPTUNE AVE	Ethanol	7.7E+01	1.9E+08	--	4E-07	--
24618 NEPTUNE AVE	Naphthalene	2.4E+00	2.3E+05	6.3E+04	1E-05	4E-10
24618 NEPTUNE AVE	p/m-Xylene	6.9E+00	5.9E+07	--	1E-07	--
24618 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	1.1E+09	--	1E-08	--
24618 PANAMA AVE	Chloroform	4.6E+01	9.0E+07	4.9E+06	5E-07	1E-10
24618 PANAMA AVE	Ethanol	1.8E+01	1.9E+08	--	9E-08	--
24618 PANAMA AVE	Naphthalene	2.0E+00	2.3E+05	6.3E+04	9E-06	3E-10
24618 RAVENNA AVE	Chloroform	1.9E+02	9.0E+07	4.9E+06	2E-06	4E-10
24618 RAVENNA AVE	Ethanol	1.5E+01	1.9E+08	--	8E-08	--
24618 RAVENNA AVE	Isopropanol	1.5E+01	5.7E+08	--	3E-08	--
24618 RAVENNA AVE	Naphthalene	5.8E+00	2.3E+05	6.3E+04	3E-05	9E-10
24618 RAVENNA AVE	Toluene	2.5E+01	3.7E+09	--	7E-09	--

**Appendix E
Detailed Risk Calculations**

**Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air**

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24619 NEPTUNE AVE	Ethanol	1.0E+01	1.9E+08	--	5E-08	--
24619 NEPTUNE AVE	Isopropanol	3.1E+01	5.7E+08	--	6E-08	--
24619 NEPTUNE AVE	Naphthalene	8.3E-01	2.3E+05	6.3E+04	4E-06	1E-10
24619 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+01	1.1E+09	--	2E-08	--
24619 PANAMA AVE	Benzene	1.9E+01	3.2E+07	1.0E+06	6E-07	2E-10
24619 PANAMA AVE	Bromomethane	1.1E+01	9.5E+06	--	1E-06	--
24619 PANAMA AVE	Ethanol	6.1E+01	1.9E+08	--	3E-07	--
24619 PANAMA AVE	Isopropanol	4.8E+01	5.7E+08	--	9E-08	--
24619 PANAMA AVE	Naphthalene	6.8E+00	2.3E+05	6.3E+04	3E-05	1E-09
24619 PANAMA AVE	Tetrahydrofuran	2.1E+01	4.9E+08	--	4E-08	--
24619 PANAMA AVE	Toluene	9.7E+00	3.7E+09	--	3E-09	--
24619 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+02	1.1E+09	--	2E-07	--
24619 RAVENNA AVE	Ethanol	9.4E+00	1.9E+08	--	5E-08	--
24619 RAVENNA AVE	Methylene Chloride	6.8E+00	6.1E+08	2.8E+07	1E-08	2E-12
24619 RAVENNA AVE	Naphthalene	3.3E+00	2.3E+05	6.3E+04	1E-05	5E-10
24619 RAVENNA AVE	Tetrachloroethene	2.1E+01	5.5E+07	6.6E+06	4E-07	3E-11
24619 RAVENNA AVE	Toluene	1.4E+01	3.7E+09	--	4E-09	--
24622 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	1.1E+09	--	1E-08	--
24622 MARBELLA AVE	Carbon Disulfide	1.2E+01	1.4E+09	--	8E-09	--
24622 MARBELLA AVE	Chloroform	1.2E+01	9.0E+07	4.9E+06	1E-07	3E-11
24622 MARBELLA AVE	Tetrachloroethene	3.8E+00	5.5E+07	6.6E+06	7E-08	6E-12
24622 NEPTUNE AVE	1,2,4-Trimethylbenzene	8.1E+00	2.3E+06	--	4E-06	--
24622 NEPTUNE AVE	1,4-Dioxane	3.1E+01	1.3E+08	1.6E+05	2E-07	2E-09
24622 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	8.1E+00	1.1E+09	--	7E-09	--
24622 NEPTUNE AVE	4-Ethyltoluene	7.9E+00	2.5E+07	--	3E-07	--
24622 NEPTUNE AVE	Benzene	7.0E+00	3.2E+07	1.0E+06	2E-07	7E-11
24622 NEPTUNE AVE	Carbon Disulfide	4.0E+00	1.4E+09	--	3E-09	--
24622 NEPTUNE AVE	Chloroform	2.8E+01	9.0E+07	4.9E+06	3E-07	6E-11
24622 NEPTUNE AVE	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
24622 NEPTUNE AVE	Hexane	2.1E+00	1.7E+09	--	1E-09	--
24622 NEPTUNE AVE	Naphthalene	5.2E+00	2.3E+05	6.3E+04	2E-05	8E-10
24623 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24623 MARBELLA AVE	4-Ethyltoluene	1.2E+01	2.5E+07	--	5E-07	--
24623 MARBELLA AVE	Benzene	1.3E+02	3.2E+07	1.0E+06	4E-06	1E-09
24623 MARBELLA AVE	Carbon Disulfide	5.0E+00	1.4E+09	--	4E-09	--
24623 MARBELLA AVE	Cumene (Isopropylbenzene)	3.1E+01	1.5E+09	--	2E-08	--
24623 MARBELLA AVE	Ethanol	1.9E+01	1.9E+08	--	1E-07	--
24623 MARBELLA AVE	Naphthalene	9.6E-01	2.3E+05	6.3E+04	4E-06	2E-10
24623 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.5E+01	1.1E+09	--	2E-08	--
24623 NEPTUNE AVE	Chloroform	6.5E+00	9.0E+07	4.9E+06	7E-08	1E-11
24623 NEPTUNE AVE	Ethanol	2.1E+01	1.9E+08	--	1E-07	--
24623 NEPTUNE AVE	Isopropanol	1.7E+01	5.7E+08	--	3E-08	--
24623 NEPTUNE AVE	Naphthalene	5.4E+00	2.3E+05	6.3E+04	2E-05	9E-10
24623 NEPTUNE AVE	p/m-Xylene	6.0E+00	5.9E+07	--	1E-07	--
24623 NEPTUNE AVE	Toluene	1.1E+02	3.7E+09	--	3E-08	--
24627 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	5.8E+00	1.1E+09	--	5E-09	--
24627 MARBELLA AVE	Carbon Disulfide	9.7E+00	1.4E+09	--	7E-09	--
24627 MARBELLA AVE	Ethanol	1.4E+01	1.9E+08	--	7E-08	--
24627 MARBELLA AVE	Naphthalene	7.2E+00	2.3E+05	6.3E+04	3E-05	1E-09
24627 MARBELLA AVE	Tetrachloroethene	1.0E+01	5.5E+07	6.6E+06	2E-07	2E-11
24628 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.1E+00	1.1E+09	--	4E-09	--
24628 MARBELLA AVE	Naphthalene	1.6E+00	2.3E+05	6.3E+04	7E-06	3E-10
24628 MARBELLA AVE	p/m-Xylene	7.8E+00	5.9E+07	--	1E-07	--
24628 MARBELLA AVE	Tetrachloroethene	1.9E+00	5.5E+07	6.6E+06	3E-08	3E-12
24628 MARBELLA AVE	Toluene	5.4E+00	3.7E+09	--	2E-09	--
24628 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.6E+01	1.1E+09	--	4E-08	--
24628 NEPTUNE AVE	Bromodichloromethane	6.1E+01	7.2E+07	7.8E+05	8E-07	8E-10
24628 NEPTUNE AVE	Bromomethane	5.5E+00	9.5E+06	--	6E-07	--
24628 NEPTUNE AVE	Chloroform	1.0E+03	9.0E+07	4.9E+06	1E-05	2E-09
24628 NEPTUNE AVE	cis-1,2-Dichloroethene	5.3E+00	8.3E+06	--	6E-07	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24628 NEPTUNE AVE	Dibromochloromethane	1.7E+01	6.0E+07	8.8E+05	3E-07	2E-10
24628 NEPTUNE AVE	Ethanol	4.3E+01	1.9E+08	--	2E-07	--
24628 NEPTUNE AVE	Naphthalene	3.2E+00	2.3E+05	6.3E+04	1E-05	5E-10
24628 NEPTUNE AVE	Toluene	1.2E+01	3.7E+09	--	3E-09	--
24629 NEPTUNE AVE	1,2,4-Trimethylbenzene	9.2E+00	2.3E+06	--	4E-06	--
24629 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.7E+01	1.1E+09	--	2E-08	--
24629 NEPTUNE AVE	Benzene	2.3E+02	3.2E+07	1.0E+06	7E-06	2E-09
24629 NEPTUNE AVE	Bromomethane	6.4E+00	9.5E+06	--	7E-07	--
24629 NEPTUNE AVE	Carbon Disulfide	3.8E+00	1.4E+09	--	3E-09	--
24629 NEPTUNE AVE	Cumene (Isopropylbenzene)	1.0E+02	1.5E+09	--	7E-08	--
24629 NEPTUNE AVE	Ethanol	3.1E+01	1.9E+08	--	2E-07	--
24629 NEPTUNE AVE	Isopropanol	1.2E+01	5.7E+08	--	2E-08	--
24629 NEPTUNE AVE	Methylene Chloride	7.3E+00	6.1E+08	2.8E+07	1E-08	3E-12
24629 NEPTUNE AVE	Naphthalene	2.7E+00	2.3E+05	6.3E+04	1E-05	4E-10
24632 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	7.7E+01	1.1E+09	--	7E-08	--
24632 NEPTUNE AVE	2-Hexanone	5.0E+00	7.9E+06	--	6E-07	--
24632 NEPTUNE AVE	Benzene	6.3E+00	3.2E+07	1.0E+06	2E-07	6E-11
24632 NEPTUNE AVE	Bromomethane	4.9E+00	9.5E+06	--	5E-07	--
24632 NEPTUNE AVE	Carbon Disulfide	2.6E+01	1.4E+09	--	2E-08	--
24632 NEPTUNE AVE	Chloroform	5.2E+01	9.0E+07	4.9E+06	6E-07	1E-10
24632 NEPTUNE AVE	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
24632 NEPTUNE AVE	Heptane	9.0E+00	2.3E+09	--	4E-09	--
24632 NEPTUNE AVE	Hexane	1.4E+01	1.7E+09	--	9E-09	--
24632 NEPTUNE AVE	Naphthalene	1.1E+01	2.3E+05	6.3E+04	5E-05	2E-09
24632 NEPTUNE AVE	Tetrachloroethene	2.8E+01	5.5E+07	6.6E+06	5E-07	4E-11
24632 NEPTUNE AVE	Tetrahydrofuran	3.7E+00	4.9E+08	--	8E-09	--
24632 NEPTUNE AVE	Toluene	2.0E+01	3.7E+09	--	5E-09	--
24633 MARBELLA AVE	Ethanol	3.8E+01	1.9E+08	--	2E-07	--
24633 MARBELLA AVE	Isopropanol	2.9E+01	5.7E+08	--	5E-08	--
24633 MARBELLA AVE	Naphthalene	7.7E+00	2.3E+05	6.3E+04	3E-05	1E-09
24633 MARBELLA AVE	Toluene	1.1E+01	3.7E+09	--	3E-09	--
24700 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	2.5E+01	1.1E+09	--	2E-08	--
24700 MARBELLA AVE	Benzene	2.6E+01	3.2E+07	1.0E+06	8E-07	3E-10
24700 MARBELLA AVE	Bromomethane	1.9E+01	9.5E+06	--	2E-06	--
24700 MARBELLA AVE	Carbon Disulfide	9.9E+00	1.4E+09	--	7E-09	--
24700 MARBELLA AVE	Chloroform	3.4E+01	9.0E+07	4.9E+06	4E-07	7E-11
24700 MARBELLA AVE	Cyclohexane	6.7E+01	1.8E+10	--	4E-09	--
24700 MARBELLA AVE	Ethanol	2.8E+01	1.9E+08	--	1E-07	--
24700 MARBELLA AVE	Hexane	2.8E+01	1.7E+09	--	2E-08	--
24700 MARBELLA AVE	Isopropanol	1.4E+03	5.7E+08	--	3E-06	--
24700 MARBELLA AVE	Methylene Chloride	2.9E+00	6.1E+08	2.8E+07	5E-09	1E-12
24700 MARBELLA AVE	Naphthalene	5.9E+00	2.3E+05	6.3E+04	3E-05	9E-10
24700 MARBELLA AVE	Tetrachloroethene	2.7E+00	5.5E+07	6.6E+06	5E-08	4E-12
24700 MARBELLA AVE	Toluene	2.7E+00	3.7E+09	--	7E-10	--
24700 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	6.5E+00	1.1E+09	--	6E-09	--
24700 RAVENNA AVE	Benzene	9.0E-01	3.2E+07	1.0E+06	3E-08	9E-12
24700 RAVENNA AVE	Bromodichloromethane	3.5E+00	7.2E+07	7.8E+05	5E-08	5E-11
24700 RAVENNA AVE	Carbon Disulfide	7.7E-01	1.4E+09	--	5E-10	--
24700 RAVENNA AVE	Chloroform	5.3E+01	9.0E+07	4.9E+06	6E-07	1E-10
24700 RAVENNA AVE	Cumene (Isopropylbenzene)	1.4E+01	1.5E+09	--	1E-08	--
24700 RAVENNA AVE	Dibromochloromethane	7.5E-01	6.0E+07	8.8E+05	1E-08	9E-12
24700 RAVENNA AVE	Ethanol	1.6E+03	1.9E+08	--	8E-06	--
24700 RAVENNA AVE	Isopropanol	2.1E+01	5.7E+08	--	4E-08	--
24700 RAVENNA AVE	Tetrachloroethene	2.0E+01	5.5E+07	6.6E+06	4E-07	3E-11
24702 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	1.1E+09	--	9E-09	--
24702 NEPTUNE AVE	Ethanol	3.0E+01	1.9E+08	--	2E-07	--
24702 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	4.9E+00	1.1E+09	--	4E-09	--
24702 PANAMA AVE	2-Hexanone	2.0E+00	7.9E+06	--	3E-07	--
24702 PANAMA AVE	Benzene	3.8E+00	3.2E+07	1.0E+06	1E-07	4E-11
24702 PANAMA AVE	Ethanol	8.9E+01	1.9E+08	--	5E-07	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24702 PANAMA AVE	Isopropanol	1.7E+01	5.7E+08	--	3E-08	--
24702 PANAMA AVE	Naphthalene	7.1E-01	2.3E+05	6.3E+04	3E-06	1E-10
24702 PANAMA AVE	Toluene	3.6E+01	3.7E+09	--	1E-08	--
24703 MARBELLA AVE	1,4-Dioxane	2.1E+01	1.3E+08	1.6E+05	2E-07	1E-09
24703 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	2.5E+01	1.1E+09	--	2E-08	--
24703 MARBELLA AVE	Carbon Tetrachloride	1.1E+01	1.6E+08	1.1E+06	7E-08	1E-10
24703 MARBELLA AVE	Chloroform	1.6E+01	9.0E+07	4.9E+06	2E-07	3E-11
24703 MARBELLA AVE	Ethanol	4.6E+01	1.9E+08	--	2E-07	--
24703 MARBELLA AVE	Isopropanol	8.3E+00	5.7E+08	--	2E-08	--
24703 MARBELLA AVE	Naphthalene	5.3E+00	2.3E+05	6.3E+04	2E-05	8E-10
24703 MARBELLA AVE	Toluene	7.8E+00	3.7E+09	--	2E-09	--
24703 NEPTUNE AVE	1,2,4-Trimethylbenzene	6.2E+01	2.3E+06	--	3E-05	--
24703 NEPTUNE AVE	1,3,5-Trimethylbenzene	3.2E+01	2.3E+06	--	1E-05	--
24703 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.5E+00	1.1E+09	--	4E-09	--
24703 NEPTUNE AVE	4-Ethyltoluene	3.2E+01	2.5E+07	--	1E-06	--
24703 NEPTUNE AVE	Benzene	7.0E+00	3.2E+07	1.0E+06	2E-07	7E-11
24703 NEPTUNE AVE	Cumene (Isopropylbenzene)	1.0E+01	1.5E+09	--	7E-09	--
24703 NEPTUNE AVE	Isopropanol	1.8E+01	5.7E+08	--	3E-08	--
24703 NEPTUNE AVE	Naphthalene	9.9E+00	2.3E+05	6.3E+04	4E-05	2E-09
24703 NEPTUNE AVE	o-Xylene	8.1E+00	5.9E+07	--	1E-07	--
24703 NEPTUNE AVE	p/m-Xylene	1.2E+01	5.9E+07	--	2E-07	--
24703 NEPTUNE AVE	Trichloroethene	2.1E+00	2.0E+06	6.7E+06	1E-06	3E-12
24703 RAVENNA AVE	1,4-Dioxane	3.9E+00	1.3E+08	1.6E+05	3E-08	2E-10
24703 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	4.2E+00	1.1E+09	--	4E-09	--
24703 RAVENNA AVE	Chloroform	8.0E+00	9.0E+07	4.9E+06	9E-08	2E-11
24703 RAVENNA AVE	Ethanol	1.7E+01	1.9E+08	--	9E-08	--
24703 RAVENNA AVE	Isopropanol	2.0E+01	5.7E+08	--	4E-08	--
24703 RAVENNA AVE	Naphthalene	4.1E+00	2.3E+05	6.3E+04	2E-05	7E-10
24703 RAVENNA AVE	Tetrachloroethene	4.5E+00	5.5E+07	6.6E+06	8E-08	7E-12
24703 RAVENNA AVE	Toluene	8.0E+00	3.7E+09	--	2E-09	--
24706 MARBELLA AVE	1,2,4-Trimethylbenzene	1.7E+01	2.3E+06	--	7E-06	--
24706 MARBELLA AVE	1,3,5-Trimethylbenzene	7.9E+00	2.3E+06	--	4E-06	--
24706 MARBELLA AVE	2,2,4-Trimethylpentane	6.8E+01	6.5E+08	--	1E-07	--
24706 MARBELLA AVE	4-Ethyltoluene	8.1E+00	2.5E+07	--	3E-07	--
24706 MARBELLA AVE	Benzene	1.6E+01	3.2E+07	1.0E+06	5E-07	2E-10
24706 MARBELLA AVE	Bromomethane	6.3E+01	9.5E+06	--	7E-06	--
24706 MARBELLA AVE	Chloroform	1.8E+02	9.0E+07	4.9E+06	2E-06	4E-10
24706 MARBELLA AVE	Cumene (Isopropylbenzene)	1.8E+01	1.5E+09	--	1E-08	--
24706 MARBELLA AVE	Cyclohexane	3.6E+02	1.8E+10	--	2E-08	--
24706 MARBELLA AVE	Ethylbenzene	8.2E+00	6.3E+08	7.0E+06	1E-08	1E-11
24706 MARBELLA AVE	Heptane	9.5E+00	2.3E+09	--	4E-09	--
24706 MARBELLA AVE	Hexane	2.3E+01	1.7E+09	--	1E-08	--
24706 MARBELLA AVE	Naphthalene	2.4E+00	2.3E+05	6.3E+04	1E-05	4E-10
24706 MARBELLA AVE	o-Xylene	6.3E+00	5.9E+07	--	1E-07	--
24706 MARBELLA AVE	p/m-Xylene	1.9E+01	5.9E+07	--	3E-07	--
24706 MARBELLA AVE	Propylbenzene	9.0E+00	6.6E+08	--	1E-08	--
24706 MARBELLA AVE	Toluene	1.3E+01	3.7E+09	--	4E-09	--
24706 RAVENNA AVE	1,2,4-Trimethylbenzene	6.2E+00	2.3E+06	--	3E-06	--
24706 RAVENNA AVE	2,2,4-Trimethylpentane	6.1E+00	6.5E+08	--	9E-09	--
24706 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	1.1E+09	--	1E-08	--
24706 RAVENNA AVE	Benzene	2.2E+01	3.2E+07	1.0E+06	7E-07	2E-10
24706 RAVENNA AVE	Carbon Disulfide	1.8E+01	1.4E+09	--	1E-08	--
24706 RAVENNA AVE	Chloroform	1.0E+02	9.0E+07	4.9E+06	1E-06	2E-10
24706 RAVENNA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24706 RAVENNA AVE	Naphthalene	3.0E+00	2.3E+05	6.3E+04	1E-05	5E-10
24706 RAVENNA AVE	Toluene	4.0E+01	3.7E+09	--	1E-08	--
24707 MARBELLA AVE	1,4-Dioxane	1.7E+01	1.3E+08	1.6E+05	1E-07	1E-09
24707 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	1.1E+09	--	2E-08	--
24707 MARBELLA AVE	Carbon Disulfide	5.1E+00	1.4E+09	--	4E-09	--
24707 MARBELLA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--

**Appendix E
Detailed Risk Calculations**

**Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air**

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24707 MARBELLA AVE	Isopropanol	1.2E+01	5.7E+08	--	2E-08	--
24707 MARBELLA AVE	Naphthalene	7.1E+00	2.3E+05	6.3E+04	3E-05	1E-09
24707 MARBELLA AVE	Tetrachloroethene	1.6E+01	5.5E+07	6.6E+06	3E-07	2E-11
24708 PANAMA AVE	1,4-Dioxane	2.0E+02	1.3E+08	1.6E+05	2E-06	1E-08
24708 PANAMA AVE	Chloroform	7.2E+00	9.0E+07	4.9E+06	8E-08	2E-11
24708 PANAMA AVE	Ethanol	3.7E+01	1.9E+08	--	2E-07	--
24708 PANAMA AVE	Naphthalene	3.8E+00	2.3E+05	6.3E+04	2E-05	6E-10
24708 PANAMA AVE	Tetrachloroethene	2.0E+00	5.5E+07	6.6E+06	4E-08	3E-12
24709 NEPTUNE AVE	1,2,4-Trimethylbenzene	6.6E+00	2.3E+06	--	3E-06	--
24709 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.0E+01	1.1E+09	--	2E-08	--
24709 NEPTUNE AVE	Benzene	1.5E+01	3.2E+07	1.0E+06	5E-07	2E-10
24709 NEPTUNE AVE	Ethanol	4.6E+02	1.9E+08	--	2E-06	--
24709 NEPTUNE AVE	Naphthalene	1.6E+02	2.3E+05	6.3E+04	7E-04	3E-08
24709 NEPTUNE AVE	p/m-Xylene	5.0E+00	5.9E+07	--	8E-08	--
24709 NEPTUNE AVE	Tetrachloroethene	4.8E+00	5.5E+07	6.6E+06	9E-08	7E-12
24709 NEPTUNE AVE	Toluene	5.5E+00	3.7E+09	--	2E-09	--
24709 PANAMA AVE	1,2-Dichloropropane	2.2E+01	3.6E+06	2.5E+06	6E-06	9E-11
24709 PANAMA AVE	1,4-Dichlorobenzene	8.6E+00	2.3E+08	7.2E+05	4E-08	1E-10
24709 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	1.1E+09	--	9E-09	--
24709 PANAMA AVE	Carbon Disulfide	5.4E+01	1.4E+09	--	4E-08	--
24709 PANAMA AVE	Chloroform	2.9E+01	9.0E+07	4.9E+06	3E-07	6E-11
24709 PANAMA AVE	Ethanol	6.7E+01	1.9E+08	--	4E-07	--
24709 PANAMA AVE	Isopropanol	1.3E+01	5.7E+08	--	2E-08	--
24709 PANAMA AVE	Naphthalene	1.6E+01	2.3E+05	6.3E+04	7E-05	3E-09
24709 PANAMA AVE	Tetrachloroethene	2.0E+00	5.5E+07	6.6E+06	4E-08	3E-12
24709 PANAMA AVE	Toluene	9.7E+00	3.7E+09	--	3E-09	--
24709 PANAMA AVE	Trichloroethene	2.2E+00	2.0E+06	6.7E+06	1E-06	3E-12
24709 RAVENNA AVE	1,2,4-Trimethylbenzene	2.5E+01	2.3E+06	--	1E-05	--
24709 RAVENNA AVE	1,3,5-Trimethylbenzene	7.4E+00	2.3E+06	--	3E-06	--
24709 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+01	1.1E+09	--	6E-08	--
24709 RAVENNA AVE	2-Hexanone	7.4E+01	7.9E+06	--	9E-06	--
24709 RAVENNA AVE	4-Ethyltoluene	2.2E+01	2.5E+07	--	9E-07	--
24709 RAVENNA AVE	Benzene	7.0E+00	3.2E+07	1.0E+06	2E-07	7E-11
24709 RAVENNA AVE	Carbon Disulfide	7.4E+00	1.4E+09	--	5E-09	--
24709 RAVENNA AVE	Chloroform	6.7E+00	9.0E+07	4.9E+06	7E-08	1E-11
24709 RAVENNA AVE	Cumene (Isopropylbenzene)	1.5E+01	1.5E+09	--	1E-08	--
24709 RAVENNA AVE	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
24709 RAVENNA AVE	Ethylbenzene	8.6E+00	6.3E+08	7.0E+06	1E-08	1E-11
24709 RAVENNA AVE	Heptane	4.9E+00	2.3E+09	--	2E-09	--
24709 RAVENNA AVE	Naphthalene	1.7E+01	2.3E+05	6.3E+04	7E-05	3E-09
24709 RAVENNA AVE	o-Xylene	1.6E+01	5.9E+07	--	3E-07	--
24709 RAVENNA AVE	p/m-Xylene	4.5E+01	5.9E+07	--	8E-07	--
24709 RAVENNA AVE	Propylbenzene	6.8E+00	6.6E+08	--	1E-08	--
24709 RAVENNA AVE	Toluene	1.1E+01	3.7E+09	--	3E-09	--
24710 MARBELLA AVE	1,2,4-Trimethylbenzene	6.0E+01	2.3E+06	--	3E-05	--
24710 MARBELLA AVE	1,2-Dichloropropane	7.3E+00	3.6E+06	2.5E+06	2E-06	3E-11
24710 MARBELLA AVE	1,3,5-Trimethylbenzene	1.8E+01	2.3E+06	--	8E-06	--
24710 MARBELLA AVE	1,4-Dioxane	1.8E+01	1.3E+08	1.6E+05	1E-07	1E-09
24710 MARBELLA AVE	2,2,4-Trimethylpentane	2.2E+01	6.5E+08	--	3E-08	--
24710 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.4E+00	1.1E+09	--	4E-09	--
24710 MARBELLA AVE	4-Ethyltoluene	2.9E+01	2.5E+07	--	1E-06	--
24710 MARBELLA AVE	Carbon Disulfide	4.6E+00	1.4E+09	--	3E-09	--
24710 MARBELLA AVE	Chloroform	3.6E+01	9.0E+07	4.9E+06	4E-07	7E-11
24710 MARBELLA AVE	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
24710 MARBELLA AVE	Ethylbenzene	7.4E+00	6.3E+08	7.0E+06	1E-08	1E-11
24710 MARBELLA AVE	Isopropanol	1.8E+01	5.7E+08	--	3E-08	--
24710 MARBELLA AVE	Naphthalene	3.5E+00	2.3E+05	6.3E+04	2E-05	6E-10
24710 MARBELLA AVE	o-Xylene	3.7E+01	5.9E+07	--	6E-07	--
24710 MARBELLA AVE	p/m-Xylene	5.7E+01	5.9E+07	--	1E-06	--
24710 MARBELLA AVE	Propylbenzene	4.5E+00	6.6E+08	--	7E-09	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24710 MARBELLA AVE	Toluene	3.5E+01	3.7E+09	--	1E-08	--
24710 MARBELLA AVE	Trichloroethene	1.2E+01	2.0E+06	6.7E+06	6E-06	2E-11
24712 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.2E+02	2.3E+06	--	5E-05	--
24712 NEPTUNE AVE	1,3,5-Trimethylbenzene	1.2E+01	2.3E+06	--	5E-06	--
24712 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	7.3E+00	1.1E+09	--	6E-09	--
24712 NEPTUNE AVE	4-Ethyltoluene	4.2E+01	2.5E+07	--	2E-06	--
24712 NEPTUNE AVE	Benzene	2.3E+01	3.2E+07	1.0E+06	7E-07	2E-10
24712 NEPTUNE AVE	Bromodichloromethane	2.9E+01	7.2E+07	7.8E+05	4E-07	4E-10
24712 NEPTUNE AVE	Chloroform	5.8E+02	9.0E+07	4.9E+06	6E-06	1E-09
24712 NEPTUNE AVE	Cumene (Isopropylbenzene)	6.8E+00	1.5E+09	--	5E-09	--
24712 NEPTUNE AVE	Cyclohexane	6.4E+00	1.8E+10	--	4E-10	--
24712 NEPTUNE AVE	Dibromochloromethane	2.3E+01	6.0E+07	8.8E+05	4E-07	3E-10
24712 NEPTUNE AVE	Ethanol	1.5E+01	1.9E+08	--	8E-08	--
24712 NEPTUNE AVE	Ethylbenzene	5.8E+01	6.3E+08	7.0E+06	9E-08	8E-11
24712 NEPTUNE AVE	Heptane	1.4E+01	2.3E+09	--	6E-09	--
24712 NEPTUNE AVE	Hexane	8.5E+00	1.7E+09	--	5E-09	--
24712 NEPTUNE AVE	Methylene Chloride	1.8E+00	6.1E+08	2.8E+07	3E-09	6E-13
24712 NEPTUNE AVE	Naphthalene	6.0E+01	2.3E+05	6.3E+04	3E-04	1E-08
24712 NEPTUNE AVE	o-Xylene	6.7E+00	5.9E+07	--	1E-07	--
24712 NEPTUNE AVE	p/m-Xylene	8.8E+01	5.9E+07	--	2E-06	--
24712 NEPTUNE AVE	Propylbenzene	1.7E+01	6.6E+08	--	3E-08	--
24712 NEPTUNE AVE	Toluene	2.0E+01	3.7E+09	--	5E-09	--
24712 PANAMA AVE	2,2,4-Trimethylpentane	1.3E+01	6.5E+08	--	2E-08	--
24712 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	3.6E+00	1.1E+09	--	3E-09	--
24712 PANAMA AVE	Heptane	1.2E+01	2.3E+09	--	5E-09	--
24712 PANAMA AVE	Hexane	1.2E+01	1.7E+09	--	7E-09	--
24712 PANAMA AVE	Naphthalene	7.3E-01	2.3E+05	6.3E+04	3E-06	1E-10
24712 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	5.3E+00	1.1E+09	--	5E-09	--
24712 RAVENNA AVE	Chloroform	4.1E+00	9.0E+07	4.9E+06	5E-08	8E-12
24712 RAVENNA AVE	Ethanol	2.2E+01	1.9E+08	--	1E-07	--
24712 RAVENNA AVE	Isopropanol	1.6E+01	5.7E+08	--	3E-08	--
24712 RAVENNA AVE	Methylene Chloride	5.0E+01	6.1E+08	2.8E+07	8E-08	2E-11
24712 RAVENNA AVE	Naphthalene	5.0E+00	2.3E+05	6.3E+04	2E-05	8E-10
24712 RAVENNA AVE	Tetrachloroethene	4.6E+00	5.5E+07	6.6E+06	8E-08	7E-12
24713 MARBELLA AVE	Isopropanol	3.3E+01	5.7E+08	--	6E-08	--
24713 MARBELLA AVE	Methylene Chloride	6.1E+00	6.1E+08	2.8E+07	1E-08	2E-12
24713 MARBELLA AVE	Naphthalene	2.0E+00	2.3E+05	6.3E+04	9E-06	3E-10
24713 MARBELLA AVE	Toluene	6.2E+00	3.7E+09	--	2E-09	--
24713 PANAMA AVE	1,2,4-Trimethylbenzene	8.2E+00	2.3E+06	--	4E-06	--
24713 PANAMA AVE	4-Ethyltoluene	6.8E+00	2.5E+07	--	3E-07	--
24713 PANAMA AVE	Benzene	3.9E+00	3.2E+07	1.0E+06	1E-07	4E-11
24713 PANAMA AVE	Bromodichloromethane	2.9E+01	7.2E+07	7.8E+05	4E-07	4E-10
24713 PANAMA AVE	Carbon Disulfide	1.8E+01	1.4E+09	--	1E-08	--
24713 PANAMA AVE	Chloroform	1.1E+02	9.0E+07	4.9E+06	1E-06	2E-10
24713 PANAMA AVE	Naphthalene	5.5E+00	2.3E+05	6.3E+04	2E-05	9E-10
24713 PANAMA AVE	p/m-Xylene	1.2E+01	5.9E+07	--	2E-07	--
24713 PANAMA AVE	Tetrachloroethene	2.0E+02	5.5E+07	6.6E+06	4E-06	3E-10
24713 PANAMA AVE	Toluene	5.6E+00	3.7E+09	--	2E-09	--
24713 RAVENNA AVE	Chloroform	4.0E+02	9.0E+07	4.9E+06	4E-06	8E-10
24713 RAVENNA AVE	Ethanol	1.8E+01	1.9E+08	--	9E-08	--
24713 RAVENNA AVE	Naphthalene	1.3E+00	2.3E+05	6.3E+04	6E-06	2E-10
24715 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	3.6E+01	1.1E+09	--	3E-08	--
24715 NEPTUNE AVE	Benzene	4.6E+00	3.2E+07	1.0E+06	2E-07	5E-11
24715 NEPTUNE AVE	Bromomethane	9.9E+00	9.5E+06	--	1E-06	--
24715 NEPTUNE AVE	Ethanol	6.3E+01	1.9E+08	--	3E-07	--
24715 NEPTUNE AVE	Isopropanol	3.1E+01	5.7E+08	--	6E-08	--
24715 NEPTUNE AVE	Naphthalene	2.4E+00	2.3E+05	6.3E+04	1E-05	4E-10
24715 NEPTUNE AVE	Toluene	7.5E+00	3.7E+09	--	2E-09	--
24716 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.7E+01	1.1E+09	--	2E-08	--
24716 MARBELLA AVE	Benzene	5.6E+00	3.2E+07	1.0E+06	2E-07	6E-11

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24716 MARBELLA AVE	Carbon Disulfide	4.0E+00	1.4E+09	--	3E-09	--
24716 MARBELLA AVE	Chloroform	8.9E+02	9.0E+07	4.9E+06	1E-05	2E-09
24716 MARBELLA AVE	cis-1,2-Dichloroethene	4.2E+00	8.3E+06	--	5E-07	--
24716 MARBELLA AVE	Cyclohexane	9.8E+00	1.8E+10	--	5E-10	--
24716 MARBELLA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24716 MARBELLA AVE	Ethylbenzene	4.9E+00	6.3E+08	7.0E+06	8E-09	7E-12
24716 MARBELLA AVE	Naphthalene	4.9E+00	2.3E+05	6.3E+04	2E-05	8E-10
24716 MARBELLA AVE	Tetrachloroethene	2.8E+01	5.5E+07	6.6E+06	5E-07	4E-11
24716 MARBELLA AVE	Tetrahydrofuran	8.6E+00	4.9E+08	--	2E-08	--
24716 MARBELLA AVE	Toluene	6.2E+00	3.7E+09	--	2E-09	--
24716 MARBELLA AVE	Trichloroethene	2.2E+01	2.0E+06	6.7E+06	1E-05	3E-11
24716 RAVENNA AVE	Chloroform	4.9E+01	9.0E+07	4.9E+06	5E-07	1E-10
24716 RAVENNA AVE	Naphthalene	1.5E+00	2.3E+05	6.3E+04	7E-06	2E-10
24717 MARBELLA AVE	1,4-Dichlorobenzene	1.1E+01	2.3E+08	7.2E+05	5E-08	2E-10
24717 MARBELLA AVE	2,2,4-Trimethylpentane	5.5E+00	6.5E+08	--	8E-09	--
24717 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	9.6E+00	1.1E+09	--	8E-09	--
24717 MARBELLA AVE	Benzene	5.2E+00	3.2E+07	1.0E+06	2E-07	5E-11
24717 MARBELLA AVE	Carbon Disulfide	9.1E+01	1.4E+09	--	6E-08	--
24717 MARBELLA AVE	Chloroform	1.6E+01	9.0E+07	4.9E+06	2E-07	3E-11
24717 MARBELLA AVE	Ethanol	2.0E+01	1.9E+08	--	1E-07	--
24717 MARBELLA AVE	Hexane	5.9E+00	1.7E+09	--	4E-09	--
24717 MARBELLA AVE	Methylene Chloride	4.6E+00	6.1E+08	2.8E+07	8E-09	2E-12
24717 MARBELLA AVE	Naphthalene	3.9E+00	2.3E+05	6.3E+04	2E-05	6E-10
24717 MARBELLA AVE	p/m-Xylene	6.3E+00	5.9E+07	--	1E-07	--
24717 MARBELLA AVE	Tetrachloroethene	2.2E+01	5.5E+07	6.6E+06	4E-07	3E-11
24717 MARBELLA AVE	Toluene	7.8E+00	3.7E+09	--	2E-09	--
24718 NEPTUNE AVE	Ethanol	2.4E+01	1.9E+08	--	1E-07	--
24718 NEPTUNE AVE	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
24718 NEPTUNE AVE	Methylene Chloride	3.9E+01	6.1E+08	2.8E+07	6E-08	1E-11
24718 NEPTUNE AVE	Naphthalene	3.9E+00	2.3E+05	6.3E+04	2E-05	6E-10
24718 NEPTUNE AVE	Tetrachloroethene	5.4E+01	5.5E+07	6.6E+06	1E-06	8E-11
24718 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	1.1E+09	--	9E-09	--
24718 PANAMA AVE	Chloroform	2.9E+02	9.0E+07	4.9E+06	3E-06	6E-10
24718 PANAMA AVE	Ethanol	3.2E+01	1.9E+08	--	2E-07	--
24718 PANAMA AVE	Naphthalene	6.7E-01	2.3E+05	6.3E+04	3E-06	1E-10
24718 PANAMA AVE	Tetrachloroethene	2.5E+02	5.5E+07	6.6E+06	5E-06	4E-10
24718 PANAMA AVE	Toluene	2.6E+01	3.7E+09	--	7E-09	--
24718 PANAMA AVE	Trichloroethene	1.6E+01	2.0E+06	6.7E+06	8E-06	2E-11
24719 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	1.1E+09	--	1E-08	--
24719 NEPTUNE AVE	Benzene	4.8E+01	3.2E+07	1.0E+06	2E-06	5E-10
24719 NEPTUNE AVE	Carbon Disulfide	1.1E+01	1.4E+09	--	8E-09	--
24719 NEPTUNE AVE	Chloroform	8.3E+02	9.0E+07	4.9E+06	9E-06	2E-09
24719 NEPTUNE AVE	Cumene (Isopropylbenzene)	6.7E+00	1.5E+09	--	5E-09	--
24719 NEPTUNE AVE	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
24719 NEPTUNE AVE	Isopropanol	8.7E+01	5.7E+08	--	2E-07	--
24719 NEPTUNE AVE	Naphthalene	3.2E+00	2.3E+05	6.3E+04	1E-05	5E-10
24719 NEPTUNE AVE	Tetrahydrofuran	2.4E+01	4.9E+08	--	5E-08	--
24719 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	2.1E+01	1.1E+09	--	2E-08	--
24719 PANAMA AVE	2-Hexanone	2.0E+00	7.9E+06	--	3E-07	--
24719 PANAMA AVE	Carbon Disulfide	5.6E+00	1.4E+09	--	4E-09	--
24719 PANAMA AVE	Chloroform	1.9E+01	9.0E+07	4.9E+06	2E-07	4E-11
24719 PANAMA AVE	Ethanol	2.9E+01	1.9E+08	--	2E-07	--
24719 PANAMA AVE	Heptane	1.1E+01	2.3E+09	--	5E-09	--
24719 PANAMA AVE	Hexane	1.9E+01	1.7E+09	--	1E-08	--
24719 PANAMA AVE	Isopropanol	2.5E+01	5.7E+08	--	4E-08	--
24719 PANAMA AVE	Naphthalene	3.1E+00	2.3E+05	6.3E+04	1E-05	5E-10
24719 PANAMA AVE	Toluene	1.2E+01	3.7E+09	--	3E-09	--
24719 RAVENNA AVE	Ethanol	9.9E+00	1.9E+08	--	5E-08	--
24719 RAVENNA AVE	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
24719 RAVENNA AVE	Naphthalene	4.7E+00	2.3E+05	6.3E+04	2E-05	7E-10

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24719 RAVENNA AVE	Toluene	4.6E+00	3.7E+09	--	1E-09	--
24722 MARBELLA AVE	1,4-Dioxane	3.9E+01	1.3E+08	1.6E+05	3E-07	2E-09
24722 MARBELLA AVE	2-Hexanone	1.8E+00	7.9E+06	--	2E-07	--
24722 MARBELLA AVE	Naphthalene	2.4E+00	2.3E+05	6.3E+04	1E-05	4E-10
24722 MARBELLA AVE	Toluene	4.8E+00	3.7E+09	--	1E-09	--
24722 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	4.5E+00	1.1E+09	--	4E-09	--
24722 NEPTUNE AVE	Benzene	2.7E+02	3.2E+07	1.0E+06	9E-06	3E-09
24722 NEPTUNE AVE	Cyclohexane	2.5E+00	1.8E+10	--	1E-10	--
24722 NEPTUNE AVE	Ethanol	3.7E+01	1.9E+08	--	2E-07	--
24722 NEPTUNE AVE	Isopropanol	2.0E+01	5.7E+08	--	4E-08	--
24722 NEPTUNE AVE	Naphthalene	2.3E+00	2.3E+05	6.3E+04	1E-05	4E-10
24722 NEPTUNE AVE	Toluene	3.8E+01	3.7E+09	--	1E-08	--
24722 PANAMA AVE	1,2,4-Trimethylbenzene	1.6E+01	2.3E+06	--	7E-06	--
24722 PANAMA AVE	1,4-Dichlorobenzene	7.2E+00	2.3E+08	7.2E+05	3E-08	1E-10
24722 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	2.8E+01	1.1E+09	--	2E-08	--
24722 PANAMA AVE	4-Ethyltoluene	1.3E+01	2.5E+07	--	5E-07	--
24722 PANAMA AVE	Benzene	9.7E+00	3.2E+07	1.0E+06	3E-07	1E-10
24722 PANAMA AVE	Bromodichloromethane	3.6E+01	7.2E+07	7.8E+05	5E-07	5E-10
24722 PANAMA AVE	Carbon Disulfide	8.2E+00	1.4E+09	--	6E-09	--
24722 PANAMA AVE	Chloroform	4.2E+01	9.0E+07	4.9E+06	5E-07	9E-11
24722 PANAMA AVE	Dibromochloromethane	3.2E+01	6.0E+07	8.8E+05	5E-07	4E-10
24722 PANAMA AVE	Ethanol	2.0E+02	1.9E+08	--	1E-06	--
24722 PANAMA AVE	Ethylbenzene	6.9E+00	6.3E+08	7.0E+06	1E-08	1E-11
24722 PANAMA AVE	Heptane	8.5E+00	2.3E+09	--	4E-09	--
24722 PANAMA AVE	Hexane	5.5E+00	1.7E+09	--	3E-09	--
24722 PANAMA AVE	Isopropanol	4.9E+01	5.7E+08	--	9E-08	--
24722 PANAMA AVE	Naphthalene	1.3E+01	2.3E+05	6.3E+04	6E-05	2E-09
24722 PANAMA AVE	o-Xylene	6.9E+00	5.9E+07	--	1E-07	--
24722 PANAMA AVE	p/m-Xylene	2.6E+01	5.9E+07	--	4E-07	--
24722 PANAMA AVE	Tetrahydrofuran	8.2E+00	4.9E+08	--	2E-08	--
24722 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	4.0E+00	1.1E+09	--	4E-09	--
24722 RAVENNA AVE	Chloroform	5.8E+00	9.0E+07	4.9E+06	6E-08	1E-11
24722 RAVENNA AVE	Ethanol	1.9E+01	1.9E+08	--	1E-07	--
24722 RAVENNA AVE	Naphthalene	2.3E+00	2.3E+05	6.3E+04	1E-05	4E-10
24723 MARBELLA AVE	1,4-Dioxane	6.6E+01	1.3E+08	1.6E+05	5E-07	4E-09
24723 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.6E+00	1.1E+09	--	4E-09	--
24723 MARBELLA AVE	Benzene	3.8E+00	3.2E+07	1.0E+06	1E-07	4E-11
24723 MARBELLA AVE	Ethanol	4.8E+01	1.9E+08	--	3E-07	--
24723 MARBELLA AVE	Naphthalene	4.1E+00	2.3E+05	6.3E+04	2E-05	7E-10
24723 MARBELLA AVE	Tetrachloroethene	4.3E+02	5.5E+07	6.6E+06	8E-06	7E-10
24723 MARBELLA AVE	Tetrahydrofuran	1.1E+01	4.9E+08	--	2E-08	--
24723 MARBELLA AVE	Toluene	6.9E+01	3.7E+09	--	2E-08	--
24723 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	1.1E+09	--	1E-08	--
24723 RAVENNA AVE	Bromodichloromethane	2.7E+01	7.2E+07	7.8E+05	4E-07	4E-10
24723 RAVENNA AVE	Chloroform	6.5E+01	9.0E+07	4.9E+06	7E-07	1E-10
24723 RAVENNA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24723 RAVENNA AVE	Naphthalene	1.1E+00	2.3E+05	6.3E+04	5E-06	2E-10
24723 RAVENNA AVE	Toluene	5.0E+00	3.7E+09	--	1E-09	--
24725 NEPTUNE AVE	1,2,4-Trimethylbenzene	7.7E+00	2.3E+06	--	3E-06	--
24725 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	3.6E+00	1.1E+09	--	3E-09	--
24725 NEPTUNE AVE	4-Ethyltoluene	6.6E+00	2.5E+07	--	3E-07	--
24725 NEPTUNE AVE	Benzene	4.3E+00	3.2E+07	1.0E+06	1E-07	4E-11
24725 NEPTUNE AVE	Chloroform	1.3E+02	9.0E+07	4.9E+06	1E-06	3E-10
24725 NEPTUNE AVE	Ethanol	2.4E+01	1.9E+08	--	1E-07	--
24725 NEPTUNE AVE	Naphthalene	6.0E+00	2.3E+05	6.3E+04	3E-05	1E-09
24725 NEPTUNE AVE	p/m-Xylene	1.1E+01	5.9E+07	--	2E-07	--
24725 NEPTUNE AVE	Toluene	8.6E+00	3.7E+09	--	2E-09	--
24726 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	4.4E+00	1.1E+09	--	4E-09	--
24726 MARBELLA AVE	Benzene	5.2E+00	3.2E+07	1.0E+06	2E-07	5E-11
24726 MARBELLA AVE	Chloroform	6.4E+01	9.0E+07	4.9E+06	7E-07	1E-10

**Appendix E
Detailed Risk Calculations**

**Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air**

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24726 MARBELLA AVE	Naphthalene	3.0E+00	2.3E+05	6.3E+04	1E-05	5E-10
24726 MARBELLA AVE	Tetrachloroethene	1.6E+01	5.5E+07	6.6E+06	3E-07	2E-11
24726 RAVENNA AVE	Chloroform	1.0E+01	9.0E+07	4.9E+06	1E-07	2E-11
24726 RAVENNA AVE	Isopropanol	2.0E+01	5.7E+08	--	4E-08	--
24726 RAVENNA AVE	Naphthalene	2.2E+00	2.3E+05	6.3E+04	1E-05	4E-10
24727 MARBELLA AVE	1,4-Dioxane	1.9E+01	1.3E+08	1.6E+05	1E-07	1E-09
24727 MARBELLA AVE	Naphthalene	5.7E-01	2.3E+05	6.3E+04	3E-06	9E-11
24727 MARBELLA AVE	Tetrachloroethene	3.1E+00	5.5E+07	6.6E+06	6E-08	5E-12
24727 MARBELLA AVE	Toluene	5.0E+00	3.7E+09	--	1E-09	--
24728 NEPTUNE AVE	1,2,4-Trimethylbenzene	7.0E+00	2.3E+06	--	3E-06	--
24728 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	1.1E+09	--	1E-08	--
24728 NEPTUNE AVE	Carbon Disulfide	3.9E+00	1.4E+09	--	3E-09	--
24728 NEPTUNE AVE	Ethanol	1.2E+02	1.9E+08	--	6E-07	--
24728 NEPTUNE AVE	Heptane	2.5E+00	2.3E+09	--	1E-09	--
24728 NEPTUNE AVE	Hexane	4.5E+00	1.7E+09	--	3E-09	--
24728 NEPTUNE AVE	Isopropanol	9.0E+01	5.7E+08	--	2E-07	--
24728 NEPTUNE AVE	Naphthalene	3.4E+00	2.3E+05	6.3E+04	2E-05	5E-10
24728 NEPTUNE AVE	p/m-Xylene	9.2E+00	5.9E+07	--	2E-07	--
24728 NEPTUNE AVE	Tetrachloroethene	2.1E+02	5.5E+07	6.6E+06	4E-06	3E-10
24728 NEPTUNE AVE	Trichloroethene	7.4E+00	2.0E+06	6.7E+06	4E-06	1E-11
24728 PANAMA AVE	1,2,4-Trimethylbenzene	1.5E+01	2.3E+06	--	7E-06	--
24728 PANAMA AVE	4-Ethyltoluene	9.8E+00	2.5E+07	--	4E-07	--
24728 PANAMA AVE	Ethanol	5.1E+01	1.9E+08	--	3E-07	--
24728 PANAMA AVE	Naphthalene	3.4E+00	2.3E+05	6.3E+04	2E-05	5E-10
24728 PANAMA AVE	o-Xylene	6.5E+00	5.9E+07	--	1E-07	--
24728 PANAMA AVE	p/m-Xylene	1.6E+01	5.9E+07	--	3E-07	--
24729 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	9.0E+00	1.1E+09	--	8E-09	--
24729 NEPTUNE AVE	Benzene	5.9E+00	3.2E+07	1.0E+06	2E-07	6E-11
24729 NEPTUNE AVE	Bromodichloromethane	3.1E+01	7.2E+07	7.8E+05	4E-07	4E-10
24729 NEPTUNE AVE	Carbon Disulfide	3.8E+01	1.4E+09	--	3E-08	--
24729 NEPTUNE AVE	Chloroform	7.2E+01	9.0E+07	4.9E+06	8E-07	2E-10
24729 NEPTUNE AVE	Ethanol	2.2E+01	1.9E+08	--	1E-07	--
24729 NEPTUNE AVE	Naphthalene	8.6E+00	2.3E+05	6.3E+04	4E-05	1E-09
24729 NEPTUNE AVE	Tetrahydrofuran	3.4E+00	4.9E+08	--	7E-09	--
24729 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	3.8E+00	1.1E+09	--	3E-09	--
24729 PANAMA AVE	Carbon Disulfide	9.8E+00	1.4E+09	--	7E-09	--
24729 PANAMA AVE	Naphthalene	1.1E+00	2.3E+05	6.3E+04	5E-06	2E-10
24729 PANAMA AVE	Toluene	2.2E+01	3.7E+09	--	6E-09	--
24729 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	4.2E+00	1.1E+09	--	4E-09	--
24729 RAVENNA AVE	Benzene	7.2E+00	3.2E+07	1.0E+06	2E-07	7E-11
24729 RAVENNA AVE	Carbon Disulfide	1.1E+01	1.4E+09	--	8E-09	--
24729 RAVENNA AVE	Chloroform	7.4E+00	9.0E+07	4.9E+06	8E-08	2E-11
24729 RAVENNA AVE	Ethanol	4.0E+01	1.9E+08	--	2E-07	--
24729 RAVENNA AVE	Isopropanol	1.3E+01	5.7E+08	--	2E-08	--
24729 RAVENNA AVE	Naphthalene	1.2E+00	2.3E+05	6.3E+04	5E-06	2E-10
24732 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	9.0E+00	1.1E+09	--	8E-09	--
24732 MARBELLA AVE	Chloroform	1.1E+01	9.0E+07	4.9E+06	1E-07	2E-11
24732 MARBELLA AVE	Ethanol	3.8E+01	1.9E+08	--	2E-07	--
24732 MARBELLA AVE	Hexane	4.7E+00	1.7E+09	--	3E-09	--
24732 MARBELLA AVE	Naphthalene	3.7E+00	2.3E+05	6.3E+04	2E-05	6E-10
24732 MARBELLA AVE	Toluene	1.4E+01	3.7E+09	--	4E-09	--
24732 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	1.1E+09	--	1E-08	--
24732 NEPTUNE AVE	Carbon Disulfide	4.4E+00	1.4E+09	--	3E-09	--
24732 NEPTUNE AVE	Chloroform	2.0E+01	9.0E+07	4.9E+06	2E-07	4E-11
24732 NEPTUNE AVE	Cyclohexane	1.4E+01	1.8E+10	--	8E-10	--
24732 NEPTUNE AVE	Ethanol	2.3E+01	1.9E+08	--	1E-07	--
24732 NEPTUNE AVE	Heptane	4.8E+00	2.3E+09	--	2E-09	--
24732 NEPTUNE AVE	Hexane	3.9E+00	1.7E+09	--	2E-09	--
24732 NEPTUNE AVE	Naphthalene	3.4E+00	2.3E+05	6.3E+04	2E-05	5E-10
24732 NEPTUNE AVE	Toluene	1.5E+01	3.7E+09	--	4E-09	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24732 PANAMA AVE	1,2,4-Trimethylbenzene	2.9E+01	2.3E+06	--	1E-05	--
24732 PANAMA AVE	1,3,5-Trimethylbenzene	8.6E+00	2.3E+06	--	4E-06	--
24732 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	2.4E+01	1.1E+09	--	2E-08	--
24732 PANAMA AVE	4-Ethyltoluene	1.9E+01	2.5E+07	--	8E-07	--
24732 PANAMA AVE	Benzene	1.4E+01	3.2E+07	1.0E+06	4E-07	1E-10
24732 PANAMA AVE	Carbon Disulfide	4.1E+00	1.4E+09	--	3E-09	--
24732 PANAMA AVE	Ethanol	2.0E+01	1.9E+08	--	1E-07	--
24732 PANAMA AVE	Methylene Chloride	7.4E+00	6.1E+08	2.8E+07	1E-08	3E-12
24732 PANAMA AVE	Naphthalene	1.7E+01	2.3E+05	6.3E+04	7E-05	3E-09
24732 PANAMA AVE	p/m-Xylene	1.4E+01	5.9E+07	--	2E-07	--
24732 PANAMA AVE	Toluene	2.3E+01	3.7E+09	--	6E-09	--
24732 RAVENNA AVE	1,2-Dichloropropane	1.6E+01	3.6E+06	2.5E+06	4E-06	6E-11
24732 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	5.1E+00	1.1E+09	--	4E-09	--
24732 RAVENNA AVE	2-Hexanone	2.1E+00	7.9E+06	--	3E-07	--
24732 RAVENNA AVE	Bromomethane	5.1E+00	9.5E+06	--	5E-07	--
24732 RAVENNA AVE	Chloroform	1.8E+02	9.0E+07	4.9E+06	2E-06	4E-10
24732 RAVENNA AVE	Isopropanol	1.3E+01	5.7E+08	--	2E-08	--
24732 RAVENNA AVE	Naphthalene	1.2E+00	2.3E+05	6.3E+04	5E-06	2E-10
24732 RAVENNA AVE	Tetrahydrofuran	3.6E+00	4.9E+08	--	7E-09	--
24732 RAVENNA AVE	Trichloroethene	1.5E+01	2.0E+06	6.7E+06	8E-06	2E-11
24733 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	1.1E+09	--	1E-08	--
24733 MARBELLA AVE	Benzene	1.8E+01	3.2E+07	1.0E+06	6E-07	2E-10
24733 MARBELLA AVE	Bromomethane	5.5E+00	9.5E+06	--	6E-07	--
24733 MARBELLA AVE	Carbon Disulfide	2.0E+01	1.4E+09	--	1E-08	--
24733 MARBELLA AVE	Ethanol	2.8E+01	1.9E+08	--	1E-07	--
24733 MARBELLA AVE	Naphthalene	8.9E-01	2.3E+05	6.3E+04	4E-06	1E-10
24733 MARBELLA AVE	Tetrachloroethene	3.8E+01	5.5E+07	6.6E+06	7E-07	6E-11
24733 MARBELLA AVE	Toluene	1.1E+01	3.7E+09	--	3E-09	--
24733 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.4E+00	1.1E+09	--	6E-09	--
24733 PANAMA AVE	Benzene	1.8E+01	3.2E+07	1.0E+06	6E-07	2E-10
24733 PANAMA AVE	Bromodichloromethane	1.1E+01	7.2E+07	7.8E+05	2E-07	1E-10
24733 PANAMA AVE	Chloroform	3.0E+02	9.0E+07	4.9E+06	3E-06	6E-10
24733 PANAMA AVE	Naphthalene	1.5E+01	2.3E+05	6.3E+04	7E-05	2E-09
24733 PANAMA AVE	Toluene	5.0E+00	3.7E+09	--	1E-09	--
24733 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	5.4E+00	1.1E+09	--	5E-09	--
24733 RAVENNA AVE	Chloroform	2.5E+01	9.0E+07	4.9E+06	3E-07	5E-11
24733 RAVENNA AVE	Naphthalene	1.0E+00	2.3E+05	6.3E+04	4E-06	2E-10
24733 RAVENNA AVE	Tetrachloroethene	2.3E+01	5.5E+07	6.6E+06	4E-07	4E-11
24735 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24735 NEPTUNE AVE	Chloroform	1.1E+01	9.0E+07	4.9E+06	1E-07	2E-11
24735 NEPTUNE AVE	Ethanol	2.5E+02	1.9E+08	--	1E-06	--
24735 NEPTUNE AVE	Isopropanol	1.6E+01	5.7E+08	--	3E-08	--
24735 NEPTUNE AVE	Naphthalene	1.8E+00	2.3E+05	6.3E+04	8E-06	3E-10
24736 RAVENNA AVE	1,2,4-Trimethylbenzene	1.7E+02	2.3E+06	--	7E-05	--
24736 RAVENNA AVE	1,3,5-Trimethylbenzene	3.6E+01	2.3E+06	--	2E-05	--
24736 RAVENNA AVE	4-Ethyltoluene	6.3E+01	2.5E+07	--	3E-06	--
24736 RAVENNA AVE	Benzene	4.7E+00	3.2E+07	1.0E+06	2E-07	5E-11
24736 RAVENNA AVE	Carbon Disulfide	2.6E+01	1.4E+09	--	2E-08	--
24736 RAVENNA AVE	Chloroform	2.2E+02	9.0E+07	4.9E+06	2E-06	5E-10
24736 RAVENNA AVE	Ethanol	2.6E+01	1.9E+08	--	1E-07	--
24736 RAVENNA AVE	Isopropanol	5.3E+01	5.7E+08	--	9E-08	--
24736 RAVENNA AVE	Naphthalene	4.0E+00	2.3E+05	6.3E+04	2E-05	6E-10
24736 RAVENNA AVE	Propylbenzene	1.4E+01	6.6E+08	--	2E-08	--
24737 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	1.8E+01	1.1E+09	--	2E-08	--
24737 MARBELLA AVE	Benzene	9.1E+00	3.2E+07	1.0E+06	3E-07	9E-11
24737 MARBELLA AVE	Bromomethane	9.0E+00	9.5E+06	--	1E-06	--
24737 MARBELLA AVE	Carbon Disulfide	4.4E+00	1.4E+09	--	3E-09	--
24737 MARBELLA AVE	Ethanol	3.8E+01	1.9E+08	--	2E-07	--
24737 MARBELLA AVE	Hexane	4.1E+00	1.7E+09	--	3E-09	--
24737 MARBELLA AVE	Naphthalene	2.9E+00	2.3E+05	6.3E+04	1E-05	5E-10

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24737 MARBELLA AVE	p/m-Xylene	1.2E+01	5.9E+07	--	2E-07	--
24737 MARBELLA AVE	Tetrachloroethene	5.1E+01	5.5E+07	6.6E+06	9E-07	8E-11
24737 MARBELLA AVE	Toluene	1.7E+01	3.7E+09	--	5E-09	--
24738 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.1E+01	2.3E+06	--	5E-06	--
24738 NEPTUNE AVE	1,4-Dichlorobenzene	1.1E+02	2.3E+08	7.2E+05	5E-07	2E-09
24738 NEPTUNE AVE	Benzene	5.8E+00	3.2E+07	1.0E+06	2E-07	6E-11
24738 NEPTUNE AVE	Chloroform	3.4E+01	9.0E+07	4.9E+06	4E-07	7E-11
24738 NEPTUNE AVE	cis-1,2-Dichloroethene	3.6E+01	8.3E+06	--	4E-06	--
24738 NEPTUNE AVE	Cumene (Isopropylbenzene)	6.5E+00	1.5E+09	--	5E-09	--
24738 NEPTUNE AVE	Ethanol	1.9E+01	1.9E+08	--	1E-07	--
24738 NEPTUNE AVE	Isopropanol	7.7E+01	5.7E+08	--	1E-07	--
24738 NEPTUNE AVE	Naphthalene	2.0E+01	2.3E+05	6.3E+04	9E-05	3E-09
24738 NEPTUNE AVE	p/m-Xylene	6.1E+00	5.9E+07	--	1E-07	--
24738 NEPTUNE AVE	Tetrachloroethene	7.5E+00	5.5E+07	6.6E+06	1E-07	1E-11
24738 NEPTUNE AVE	Toluene	1.0E+01	3.7E+09	--	3E-09	--
24738 NEPTUNE AVE	Trichloroethene	2.4E+01	2.0E+06	6.7E+06	1E-05	4E-11
24738 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.7E+01	1.1E+09	--	2E-08	--
24738 PANAMA AVE	Benzene	1.2E+01	3.2E+07	1.0E+06	4E-07	1E-10
24738 PANAMA AVE	Chloroform	7.5E+00	9.0E+07	4.9E+06	8E-08	2E-11
24738 PANAMA AVE	Cumene (Isopropylbenzene)	4.0E+01	1.5E+09	--	3E-08	--
24738 PANAMA AVE	Cyclohexane	3.2E+01	1.8E+10	--	2E-09	--
24738 PANAMA AVE	Ethanol	1.4E+01	1.9E+08	--	7E-08	--
24738 PANAMA AVE	Ethylbenzene	1.7E+02	6.3E+08	7.0E+06	3E-07	2E-10
24738 PANAMA AVE	Hexane	4.6E+00	1.7E+09	--	3E-09	--
24738 PANAMA AVE	Isopropanol	1.7E+02	5.7E+08	--	3E-07	--
24738 PANAMA AVE	Naphthalene	1.4E+01	2.3E+05	6.3E+04	6E-05	2E-09
24738 PANAMA AVE	Propylbenzene	5.0E+01	6.6E+08	--	8E-08	--
24738 PANAMA AVE	Toluene	5.0E+00	3.7E+09	--	1E-09	--
24739 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.9E+01	2.3E+06	--	8E-06	--
24739 NEPTUNE AVE	1,3,5-Trimethylbenzene	5.3E+00	2.3E+06	--	2E-06	--
24739 NEPTUNE AVE	2,2,4-Trimethylpentane	7.1E+00	6.5E+08	--	1E-08	--
24739 NEPTUNE AVE	4-Ethyltoluene	1.1E+01	2.5E+07	--	5E-07	--
24739 NEPTUNE AVE	Benzene	3.9E+00	3.2E+07	1.0E+06	1E-07	4E-11
24739 NEPTUNE AVE	Chloroform	9.6E+00	9.0E+07	4.9E+06	1E-07	2E-11
24739 NEPTUNE AVE	Ethanol	1.7E+01	1.9E+08	--	9E-08	--
24739 NEPTUNE AVE	Ethylbenzene	4.6E+00	6.3E+08	7.0E+06	7E-09	7E-12
24739 NEPTUNE AVE	Heptane	1.0E+01	2.3E+09	--	4E-09	--
24739 NEPTUNE AVE	Hexane	1.2E+01	1.7E+09	--	7E-09	--
24739 NEPTUNE AVE	Methylene Chloride	4.4E+00	6.1E+08	2.8E+07	7E-09	2E-12
24739 NEPTUNE AVE	Naphthalene	4.7E+00	2.3E+05	6.3E+04	2E-05	7E-10
24739 NEPTUNE AVE	o-Xylene	9.0E+00	5.9E+07	--	2E-07	--
24739 NEPTUNE AVE	p/m-Xylene	2.3E+01	5.9E+07	--	4E-07	--
24739 NEPTUNE AVE	Toluene	1.3E+01	3.7E+09	--	4E-09	--
24739 PANAMA AVE	1,4-Dichlorobenzene	2.0E+00	2.3E+08	7.2E+05	9E-09	3E-11
24739 PANAMA AVE	Carbon Disulfide	7.0E+00	1.4E+09	--	5E-09	--
24739 PANAMA AVE	Heptane	7.0E+00	2.3E+09	--	3E-09	--
24739 PANAMA AVE	Hexane	7.6E+00	1.7E+09	--	5E-09	--
24739 PANAMA AVE	Naphthalene	9.1E-01	2.3E+05	6.3E+04	4E-06	1E-10
24739 PANAMA AVE	Toluene	2.6E+01	3.7E+09	--	7E-09	--
24739 PANAMA AVE	Trichloroethene	2.4E+00	2.0E+06	6.7E+06	1E-06	4E-12
24739 RAVENNA AVE	1,2,4-Trimethylbenzene	4.0E+01	2.3E+06	--	2E-05	--
24739 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	2.0E+01	1.1E+09	--	2E-08	--
24739 RAVENNA AVE	Bromomethane	4.7E+00	9.5E+06	--	5E-07	--
24739 RAVENNA AVE	Carbon Disulfide	3.7E+00	1.4E+09	--	3E-09	--
24739 RAVENNA AVE	Chloroform	6.5E+00	9.0E+07	4.9E+06	7E-08	1E-11
24739 RAVENNA AVE	Naphthalene	5.2E+00	2.3E+05	6.3E+04	2E-05	8E-10
24740 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	9.4E+00	1.1E+09	--	8E-09	--
24740 MARBELLA AVE	Benzene	1.4E+01	3.2E+07	1.0E+06	4E-07	1E-10
24740 MARBELLA AVE	Cumene (Isopropylbenzene)	7.4E+00	1.5E+09	--	5E-09	--
24740 MARBELLA AVE	Ethanol	2.2E+01	1.9E+08	--	1E-07	--

**Appendix E
Detailed Risk Calculations**

**Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air**

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24740 MARBELLA AVE	Isopropanol	1.6E+01	5.7E+08	--	3E-08	--
24740 MARBELLA AVE	Naphthalene	1.3E+00	2.3E+05	6.3E+04	6E-06	2E-10
24740 MARBELLA AVE	Tetrachloroethene	2.9E+01	5.5E+07	6.6E+06	5E-07	4E-11
24741 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	7.7E+00	1.1E+09	--	7E-09	--
24741 MARBELLA AVE	Benzene	6.9E+00	3.2E+07	1.0E+06	2E-07	7E-11
24741 MARBELLA AVE	Chloroform	3.8E+01	9.0E+07	4.9E+06	4E-07	8E-11
24741 MARBELLA AVE	Ethanol	2.4E+01	1.9E+08	--	1E-07	--
24741 MARBELLA AVE	Isopropanol	2.0E+01	5.7E+08	--	4E-08	--
24741 MARBELLA AVE	Naphthalene	3.6E-01	2.3E+05	6.3E+04	2E-06	6E-11
24741 MARBELLA AVE	Tetrachloroethene	9.5E+02	5.5E+07	6.6E+06	2E-05	1E-09
24741 MARBELLA AVE	Trichloroethene	1.6E+02	2.0E+06	6.7E+06	8E-05	2E-10
24743 RAVENNA AVE	Chloroform	1.3E+01	9.0E+07	4.9E+06	1E-07	3E-11
24743 RAVENNA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24743 RAVENNA AVE	Hexane	5.0E+00	1.7E+09	--	3E-09	--
24743 RAVENNA AVE	Naphthalene	5.1E+00	2.3E+05	6.3E+04	2E-05	8E-10
24744 MARBELLA AVE	2-Butanone (Methyl Ethyl Ketone)	8.8E+00	1.1E+09	--	8E-09	--
24744 MARBELLA AVE	Benzene	1.7E+01	3.2E+07	1.0E+06	5E-07	2E-10
24744 MARBELLA AVE	Bromomethane	9.5E+01	9.5E+06	--	1E-05	--
24744 MARBELLA AVE	Carbon Disulfide	4.5E+00	1.4E+09	--	3E-09	--
24744 MARBELLA AVE	Ethanol	9.4E+01	1.9E+08	--	5E-07	--
24744 MARBELLA AVE	Hexane	4.3E+00	1.7E+09	--	3E-09	--
24744 MARBELLA AVE	Isopropanol	1.2E+01	5.7E+08	--	2E-08	--
24744 MARBELLA AVE	Naphthalene	4.0E+01	2.3E+05	6.3E+04	2E-04	6E-09
24744 MARBELLA AVE	Tetrachloroethene	9.1E+01	5.5E+07	6.6E+06	2E-06	1E-10
24744 MARBELLA AVE	Toluene	5.3E+00	3.7E+09	--	1E-09	--
24744 MARBELLA AVE	Trichloroethene	6.7E+00	2.0E+06	6.7E+06	3E-06	1E-11
24748 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	3.2E+01	1.1E+09	--	3E-08	--
24748 RAVENNA AVE	Benzene	2.2E+01	3.2E+07	1.0E+06	7E-07	2E-10
24748 RAVENNA AVE	Bromodichloromethane	2.2E+01	7.2E+07	7.8E+05	3E-07	3E-10
24748 RAVENNA AVE	Chloroform	2.1E+02	9.0E+07	4.9E+06	2E-06	4E-10
24748 RAVENNA AVE	Cumene (Isopropylbenzene)	6.6E+00	1.5E+09	--	5E-09	--
24748 RAVENNA AVE	Ethanol	2.1E+01	1.9E+08	--	1E-07	--
24748 RAVENNA AVE	Naphthalene	3.6E+00	2.3E+05	6.3E+04	2E-05	6E-10
24749 RAVENNA AVE	1,2-Dichloroethane	4.7E+01	4.4E+06	8.5E+05	1E-05	6E-10
24749 RAVENNA AVE	2,2,4-Trimethylpentane	3.7E+03	6.5E+08	--	6E-06	--
24749 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24749 RAVENNA AVE	Benzene	1.0E+03	3.2E+07	1.0E+06	3E-05	1E-08
24749 RAVENNA AVE	Chloroform	5.8E+01	9.0E+07	4.9E+06	6E-07	1E-10
24749 RAVENNA AVE	cis-1,2-Dichloroethene	1.3E+02	8.3E+06	--	2E-05	--
24749 RAVENNA AVE	Cumene (Isopropylbenzene)	1.3E+01	1.5E+09	--	9E-09	--
24749 RAVENNA AVE	Cyclohexane	1.4E+04	1.8E+10	--	8E-07	--
24749 RAVENNA AVE	Ethanol	2.3E+01	1.9E+08	--	1E-07	--
24749 RAVENNA AVE	Ethylbenzene	2.0E+02	6.3E+08	7.0E+06	3E-07	3E-10
24749 RAVENNA AVE	Heptane	2.7E+03	2.3E+09	--	1E-06	--
24749 RAVENNA AVE	Hexane	4.1E+03	1.7E+09	--	3E-06	--
24749 RAVENNA AVE	Methyl-tert-Butyl Ether	4.4E+02	1.8E+09	6.5E+07	2E-07	7E-11
24749 RAVENNA AVE	Naphthalene	6.6E+00	2.3E+05	6.3E+04	3E-05	1E-09
24749 RAVENNA AVE	o-Xylene	3.4E+01	5.9E+07	--	6E-07	--
24749 RAVENNA AVE	p/m-Xylene	4.9E+01	5.9E+07	--	8E-07	--
24749 RAVENNA AVE	Toluene	2.6E+01	3.7E+09	--	7E-09	--
24752 RAVENNA AVE	2-Butanone (Methyl Ethyl Ketone)	1.9E+01	1.1E+09	--	2E-08	--
24752 RAVENNA AVE	Chloroform	7.7E+00	9.0E+07	4.9E+06	9E-08	2E-11
24752 RAVENNA AVE	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
24802 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.1E+01	1.1E+09	--	1E-08	--
24802 PANAMA AVE	Benzene	1.8E+01	3.2E+07	1.0E+06	6E-07	2E-10
24802 PANAMA AVE	Ethanol	7.0E+01	1.9E+08	--	4E-07	--
24802 PANAMA AVE	Naphthalene	2.7E+00	2.3E+05	6.3E+04	1E-05	4E-10
24803 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	5.4E+00	1.1E+09	--	5E-09	--
24803 NEPTUNE AVE	Cyclohexane	1.0E+01	1.8E+10	--	6E-10	--
24803 NEPTUNE AVE	Ethanol	2.7E+01	1.9E+08	--	1E-07	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24803 NEPTUNE AVE	Ethylbenzene	1.2E+01	6.3E+08	7.0E+06	2E-08	2E-11
24803 NEPTUNE AVE	Isopropanol	3.0E+01	5.7E+08	--	5E-08	--
24803 NEPTUNE AVE	Naphthalene	3.5E+00	2.3E+05	6.3E+04	2E-05	6E-10
24803 NEPTUNE AVE	o-Xylene	5.0E+00	5.9E+07	--	8E-08	--
24803 NEPTUNE AVE	p/m-Xylene	1.8E+01	5.9E+07	--	3E-07	--
24803 NEPTUNE AVE	Toluene	6.8E+01	3.7E+09	--	2E-08	--
24803 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+00	1.1E+09	--	6E-09	--
24803 PANAMA AVE	Benzene	3.1E+01	3.2E+07	1.0E+06	1E-06	3E-10
24803 PANAMA AVE	Chloroform	2.3E+01	9.0E+07	4.9E+06	3E-07	5E-11
24803 PANAMA AVE	Naphthalene	3.0E+00	2.3E+05	6.3E+04	1E-05	5E-10
24809 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	1.1E+09	--	2E-08	--
24809 NEPTUNE AVE	Carbon Disulfide	1.6E+01	1.4E+09	--	1E-08	--
24809 NEPTUNE AVE	Ethanol	1.8E+01	1.9E+08	--	9E-08	--
24809 NEPTUNE AVE	Isopropanol	5.5E+01	5.7E+08	--	1E-07	--
24809 NEPTUNE AVE	Tetrahydrofuran	5.0E+00	4.9E+08	--	1E-08	--
24809 NEPTUNE AVE	Trichloroethene	4.3E+01	2.0E+06	6.7E+06	2E-05	6E-11
24809 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	7.3E+00	1.1E+09	--	6E-09	--
24809 PANAMA AVE	2-Hexanone	8.1E-01	7.9E+06	--	1E-07	--
24809 PANAMA AVE	Benzene	1.7E+01	3.2E+07	1.0E+06	5E-07	2E-10
24809 PANAMA AVE	Carbon Disulfide	1.2E+01	1.4E+09	--	8E-09	--
24809 PANAMA AVE	Chloroform	1.2E+01	9.0E+07	4.9E+06	1E-07	3E-11
24809 PANAMA AVE	Cumene (Isopropylbenzene)	1.0E+00	1.5E+09	--	7E-10	--
24809 PANAMA AVE	Ethanol	1.4E+01	1.9E+08	--	7E-08	--
24809 PANAMA AVE	Isopropanol	3.6E+00	5.7E+08	--	6E-09	--
24809 PANAMA AVE	Naphthalene	2.9E+00	2.3E+05	6.3E+04	1E-05	5E-10
24809 PANAMA AVE	Tetrachloroethene	7.0E+00	5.5E+07	6.6E+06	1E-07	1E-11
24809 PANAMA AVE	Tetrahydrofuran	3.7E+00	4.9E+08	--	8E-09	--
24812 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	1.1E+09	--	1E-08	--
24812 PANAMA AVE	Chloroform	8.3E+00	9.0E+07	4.9E+06	9E-08	2E-11
24812 PANAMA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24812 PANAMA AVE	Hexane	7.2E+00	1.7E+09	--	4E-09	--
24812 PANAMA AVE	Naphthalene	1.9E+00	2.3E+05	6.3E+04	8E-06	3E-10
24812 PANAMA AVE	Toluene	3.0E+01	3.7E+09	--	8E-09	--
24813 PANAMA AVE	1,2,4-Trimethylbenzene	2.7E+00	2.3E+06	--	1E-06	--
24813 PANAMA AVE	1,4-Dioxane	1.9E+01	1.3E+08	1.6E+05	1E-07	1E-09
24813 PANAMA AVE	2,2,4-Trimethylpentane	2.8E+00	6.5E+08	--	4E-09	--
24813 PANAMA AVE	Bromodichloromethane	6.5E+01	7.2E+07	7.8E+05	9E-07	8E-10
24813 PANAMA AVE	Carbon Disulfide	4.0E+00	1.4E+09	--	3E-09	--
24813 PANAMA AVE	Carbon Tetrachloride	2.2E+00	1.6E+08	1.1E+06	1E-08	2E-11
24813 PANAMA AVE	Chloroform	1.0E+03	9.0E+07	4.9E+06	1E-05	2E-09
24813 PANAMA AVE	Cyclohexane	5.3E+00	1.8E+10	--	3E-10	--
24813 PANAMA AVE	Dibromochloromethane	1.2E+01	6.0E+07	8.8E+05	2E-07	1E-10
24813 PANAMA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24813 PANAMA AVE	Ethylbenzene	7.8E+00	6.3E+08	7.0E+06	1E-08	1E-11
24813 PANAMA AVE	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
24813 PANAMA AVE	Methylene Chloride	4.0E+00	6.1E+08	2.8E+07	7E-09	1E-12
24813 PANAMA AVE	Naphthalene	4.6E+00	2.3E+05	6.3E+04	2E-05	7E-10
24813 PANAMA AVE	Tetrachloroethene	3.3E+00	5.5E+07	6.6E+06	6E-08	5E-12
24815 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	1.1E+09	--	1E-08	--
24815 NEPTUNE AVE	Benzene	6.2E+00	3.2E+07	1.0E+06	2E-07	6E-11
24815 NEPTUNE AVE	Carbon Disulfide	3.8E+00	1.4E+09	--	3E-09	--
24815 NEPTUNE AVE	Chloroform	1.0E+01	9.0E+07	4.9E+06	1E-07	2E-11
24815 NEPTUNE AVE	Naphthalene	5.4E+00	2.3E+05	6.3E+04	2E-05	9E-10
24815 NEPTUNE AVE	Tetrahydrofuran	4.0E+00	4.9E+08	--	8E-09	--
24815 NEPTUNE AVE	Toluene	1.6E+01	3.7E+09	--	4E-09	--
24818 PANAMA AVE	Chloroform	3.0E+01	9.0E+07	4.9E+06	3E-07	6E-11
24818 PANAMA AVE	Cyclohexane	4.5E+00	1.8E+10	--	3E-10	--
24818 PANAMA AVE	Naphthalene	4.1E+00	2.3E+05	6.3E+04	2E-05	7E-10
24818 PANAMA AVE	Toluene	7.3E+00	3.7E+09	--	2E-09	--
24819 PANAMA AVE	1,2,4-Trimethylbenzene	1.5E+01	2.3E+06	--	7E-06	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24819 PANAMA AVE	1,3,5-Trimethylbenzene	6.6E+00	2.3E+06	--	3E-06	--
24819 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	1.1E+09	--	1E-08	--
24819 PANAMA AVE	4-Ethyltoluene	1.0E+01	2.5E+07	--	4E-07	--
24819 PANAMA AVE	Benzene	4.9E+00	3.2E+07	1.0E+06	2E-07	5E-11
24819 PANAMA AVE	Bromodichloromethane	2.0E+00	7.2E+07	7.8E+05	3E-08	3E-11
24819 PANAMA AVE	Chloroform	2.6E+00	9.0E+07	4.9E+06	3E-08	5E-12
24819 PANAMA AVE	Ethanol	3.7E+01	1.9E+08	--	2E-07	--
24819 PANAMA AVE	Isopropanol	1.3E+01	5.7E+08	--	2E-08	--
24819 PANAMA AVE	Naphthalene	1.2E+01	2.3E+05	6.3E+04	5E-05	2E-09
24819 PANAMA AVE	p/m-Xylene	5.4E+00	5.9E+07	--	9E-08	--
24822 PANAMA AVE	2,2,4-Trimethylpentane	9.3E+00	6.5E+08	--	1E-08	--
24822 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.2E+01	1.1E+09	--	1E-08	--
24822 PANAMA AVE	Carbon Disulfide	2.9E+01	1.4E+09	--	2E-08	--
24822 PANAMA AVE	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
24822 PANAMA AVE	Ethylbenzene	1.8E+01	6.3E+08	7.0E+06	3E-08	3E-11
24822 PANAMA AVE	Heptane	5.8E+00	2.3E+09	--	3E-09	--
24822 PANAMA AVE	Hexane	6.3E+00	1.7E+09	--	4E-09	--
24822 PANAMA AVE	Naphthalene	3.6E+00	2.3E+05	6.3E+04	2E-05	6E-10
24822 PANAMA AVE	p/m-Xylene	5.4E+00	5.9E+07	--	9E-08	--
24822 PANAMA AVE	Propylbenzene	5.8E+00	6.6E+08	--	9E-09	--
24823 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	5.0E+00	1.1E+09	--	4E-09	--
24823 PANAMA AVE	Benzene	6.5E+00	3.2E+07	1.0E+06	2E-07	6E-11
24823 PANAMA AVE	Carbon Disulfide	1.4E+01	1.4E+09	--	1E-08	--
24823 PANAMA AVE	Ethanol	2.0E+01	1.9E+08	--	1E-07	--
24823 PANAMA AVE	Tetrahydrofuran	3.9E+00	4.9E+08	--	8E-09	--
24823 PANAMA AVE	Toluene	4.2E+00	3.7E+09	--	1E-09	--
24825 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	3.9E+00	1.1E+09	--	3E-09	--
24825 NEPTUNE AVE	Bromodichloromethane	2.1E+01	7.2E+07	7.8E+05	3E-07	3E-10
24825 NEPTUNE AVE	Chloroform	2.3E+02	9.0E+07	4.9E+06	3E-06	5E-10
24825 NEPTUNE AVE	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
24825 NEPTUNE AVE	Heptane	9.3E+00	2.3E+09	--	4E-09	--
24825 NEPTUNE AVE	Naphthalene	1.9E+01	2.3E+05	6.3E+04	8E-05	3E-09
24825 NEPTUNE AVE	Toluene	9.5E+00	3.7E+09	--	3E-09	--
24828 PANAMA AVE	2-Hexanone	1.9E+00	7.9E+06	--	2E-07	--
24828 PANAMA AVE	Ethanol	1.8E+01	1.9E+08	--	9E-08	--
24828 PANAMA AVE	Heptane	1.9E+01	2.3E+09	--	8E-09	--
24828 PANAMA AVE	Hexane	8.7E+00	1.7E+09	--	5E-09	--
24828 PANAMA AVE	Naphthalene	5.2E+00	2.3E+05	6.3E+04	2E-05	8E-10
24828 PANAMA AVE	Tetrahydrofuran	6.9E+00	4.9E+08	--	1E-08	--
24829 PANAMA AVE	1,2-Dichloroethane	5.6E+00	4.4E+06	8.5E+05	1E-06	7E-11
24829 PANAMA AVE	2,2,4-Trimethylpentane	1.4E+03	6.5E+08	--	2E-06	--
24829 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	1.1E+09	--	1E-08	--
24829 PANAMA AVE	2-Hexanone	1.9E+00	7.9E+06	--	2E-07	--
24829 PANAMA AVE	Benzene	2.8E+01	3.2E+07	1.0E+06	9E-07	3E-10
24829 PANAMA AVE	Carbon Disulfide	2.4E+01	1.4E+09	--	2E-08	--
24829 PANAMA AVE	Chloroform	1.6E+02	9.0E+07	4.9E+06	2E-06	3E-10
24829 PANAMA AVE	Cumene (Isopropylbenzene)	1.6E+01	1.5E+09	--	1E-08	--
24829 PANAMA AVE	Ethanol	3.3E+01	1.9E+08	--	2E-07	--
24829 PANAMA AVE	Ethylbenzene	9.8E+00	6.3E+08	7.0E+06	2E-08	1E-11
24829 PANAMA AVE	Isopropanol	5.0E+01	5.7E+08	--	9E-08	--
24829 PANAMA AVE	Methylene Chloride	9.3E+00	6.1E+08	2.8E+07	2E-08	3E-12
24829 PANAMA AVE	Naphthalene	1.0E+01	2.3E+05	6.3E+04	4E-05	2E-09
24829 PANAMA AVE	Propylbenzene	3.2E+01	6.6E+08	--	5E-08	--
24829 PANAMA AVE	Tetrahydrofuran	2.2E+00	4.9E+08	--	5E-09	--
24829 PANAMA AVE	Toluene	1.8E+01	3.7E+09	--	5E-09	--
24832 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	5.9E+00	1.1E+09	--	5E-09	--
24832 PANAMA AVE	Carbon Disulfide	2.6E+01	1.4E+09	--	2E-08	--
24832 PANAMA AVE	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
24832 PANAMA AVE	Hexane	4.3E+00	1.7E+09	--	3E-09	--
24832 PANAMA AVE	Naphthalene	2.8E+00	2.3E+05	6.3E+04	1E-05	4E-10

**Appendix E
Detailed Risk Calculations**

**Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air**

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
24832 PANAMA AVE	Toluene	1.3E+02	3.7E+09	--	4E-08	--
24833 PANAMA AVE	1,4-Dioxane	1.8E+01	1.3E+08	1.6E+05	1E-07	1E-09
24833 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	6.6E+01	1.1E+09	--	6E-08	--
24833 PANAMA AVE	2-Hexanone	3.6E+02	7.9E+06	--	5E-05	--
24833 PANAMA AVE	Carbon Disulfide	8.0E+00	1.4E+09	--	6E-09	--
24833 PANAMA AVE	Chloroform	1.6E+01	9.0E+07	4.9E+06	2E-07	3E-11
24833 PANAMA AVE	Ethanol	1.0E+02	1.9E+08	--	5E-07	--
24833 PANAMA AVE	Heptane	1.4E+01	2.3E+09	--	6E-09	--
24833 PANAMA AVE	Hexane	1.4E+01	1.7E+09	--	9E-09	--
24833 PANAMA AVE	Isopropanol	2.9E+01	5.7E+08	--	5E-08	--
24833 PANAMA AVE	Naphthalene	2.6E+01	2.3E+05	6.3E+04	1E-04	4E-09
24833 PANAMA AVE	Toluene	4.9E+01	3.7E+09	--	1E-08	--
24833 PANAMA AVE	Trichloroethene	2.3E+01	2.0E+06	6.7E+06	1E-05	3E-11
24838 PANAMA AVE	1,2,4-Trimethylbenzene	9.3E+00	2.3E+06	--	4E-06	--
24838 PANAMA AVE	2-Butanone (Methyl Ethyl Ketone)	7.0E+00	1.1E+09	--	6E-09	--
24838 PANAMA AVE	4-Ethyltoluene	5.8E+00	2.5E+07	--	2E-07	--
24838 PANAMA AVE	Benzene	7.9E+00	3.2E+07	1.0E+06	3E-07	8E-11
24838 PANAMA AVE	Bromodichloromethane	2.4E+01	7.2E+07	7.8E+05	3E-07	3E-10
24838 PANAMA AVE	Carbon Disulfide	4.1E+00	1.4E+09	--	3E-09	--
24838 PANAMA AVE	Chloroform	2.4E+01	9.0E+07	4.9E+06	3E-07	5E-11
24838 PANAMA AVE	Cumene (Isopropylbenzene)	8.0E+00	1.5E+09	--	6E-09	--
24838 PANAMA AVE	Isopropanol	1.1E+02	5.7E+08	--	2E-07	--
24838 PANAMA AVE	Naphthalene	1.1E+01	2.3E+05	6.3E+04	5E-05	2E-09
24838 PANAMA AVE	p/m-Xylene	5.4E+00	5.9E+07	--	9E-08	--
24838 PANAMA AVE	Tetrachloroethene	7.4E+01	5.5E+07	6.6E+06	1E-06	1E-10
24904 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	1.2E+01	1.1E+09	--	1E-08	--
24904 NEPTUNE AVE	2-Hexanone	2.5E+00	7.9E+06	--	3E-07	--
24904 NEPTUNE AVE	Benzene	1.1E+01	3.2E+07	1.0E+06	4E-07	1E-10
24904 NEPTUNE AVE	Ethanol	2.8E+01	1.9E+08	--	1E-07	--
24904 NEPTUNE AVE	Heptane	1.4E+01	2.3E+09	--	6E-09	--
24904 NEPTUNE AVE	Hexane	7.5E+00	1.7E+09	--	5E-09	--
24904 NEPTUNE AVE	Isopropanol	5.6E+01	5.7E+08	--	1E-07	--
24904 NEPTUNE AVE	Naphthalene	4.3E+00	2.3E+05	6.3E+04	2E-05	7E-10
24912 NEPTUNE AVE	1,2,4-Trimethylbenzene	1.3E+02	2.3E+06	--	6E-05	--
24912 NEPTUNE AVE	1,3,5-Trimethylbenzene	3.8E+01	2.3E+06	--	2E-05	--
24912 NEPTUNE AVE	2,2,4-Trimethylpentane	2.1E+02	6.5E+08	--	3E-07	--
24912 NEPTUNE AVE	2-Butanone (Methyl Ethyl Ketone)	8.0E+00	1.1E+09	--	7E-09	--
24912 NEPTUNE AVE	4-Ethyltoluene	3.7E+01	2.5E+07	--	2E-06	--
24912 NEPTUNE AVE	Benzene	2.2E+01	3.2E+07	1.0E+06	7E-07	2E-10
24912 NEPTUNE AVE	Carbon Disulfide	1.3E+02	1.4E+09	--	9E-08	--
24912 NEPTUNE AVE	Chloroform	1.1E+01	9.0E+07	4.9E+06	1E-07	2E-11
24912 NEPTUNE AVE	Cumene (Isopropylbenzene)	2.8E+01	1.5E+09	--	2E-08	--
24912 NEPTUNE AVE	Cyclohexane	9.2E+00	1.8E+10	--	5E-10	--
24912 NEPTUNE AVE	Ethanol	2.4E+01	1.9E+08	--	1E-07	--
24912 NEPTUNE AVE	Ethylbenzene	1.1E+02	6.3E+08	7.0E+06	2E-07	2E-10
24912 NEPTUNE AVE	Heptane	4.4E+01	2.3E+09	--	2E-08	--
24912 NEPTUNE AVE	Hexane	9.0E+00	1.7E+09	--	5E-09	--
24912 NEPTUNE AVE	Isopropanol	1.1E+01	5.7E+08	--	2E-08	--
24912 NEPTUNE AVE	Naphthalene	9.4E+00	2.3E+05	6.3E+04	4E-05	2E-09
24912 NEPTUNE AVE	p/m-Xylene	4.3E+01	5.9E+07	--	7E-07	--
24912 NEPTUNE AVE	Propylbenzene	8.9E+01	6.6E+08	--	1E-07	--
24912 NEPTUNE AVE	Tetrachloroethene	4.8E+01	5.5E+07	6.6E+06	9E-07	7E-11
24912 NEPTUNE AVE	Tetrahydrofuran	1.2E+01	4.9E+08	--	3E-08	--
24912 NEPTUNE AVE	Toluene	1.3E+01	3.7E+09	--	4E-09	--
301 244TH ST	1,4-Dioxane	5.2E+01	1.3E+08	1.6E+05	4E-07	3E-09
301 244TH ST	2-Butanone (Methyl Ethyl Ketone)	3.4E+00	1.1E+09	--	3E-09	--
301 244TH ST	Carbon Disulfide	1.6E+01	1.4E+09	--	1E-08	--
301 244TH ST	Ethanol	1.9E+01	1.9E+08	--	1E-07	--
301 244TH ST	Naphthalene	2.3E+00	2.3E+05	6.3E+04	1E-05	4E-10
301 244TH ST	Tetrachloroethene	1.5E+02	5.5E+07	6.6E+06	3E-06	2E-10

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
305 244TH ST	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	1.1E+09	--	2E-08	--
305 244TH ST	Benzene	4.6E+00	3.2E+07	1.0E+06	2E-07	5E-11
305 244TH ST	Carbon Disulfide	4.4E+00	1.4E+09	--	3E-09	--
305 244TH ST	Chloroform	8.2E+00	9.0E+07	4.9E+06	9E-08	2E-11
305 244TH ST	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
305 244TH ST	Heptane	4.9E+00	2.3E+09	--	2E-09	--
305 244TH ST	Hexane	7.8E+00	1.7E+09	--	5E-09	--
305 244TH ST	Naphthalene	5.5E+00	2.3E+05	6.3E+04	2E-05	9E-10
311 244TH ST	2-Butanone (Methyl Ethyl Ketone)	8.8E+00	1.1E+09	--	8E-09	--
311 244TH ST	Chloroform	1.8E+01	9.0E+07	4.9E+06	2E-07	4E-11
311 244TH ST	Naphthalene	3.1E+00	2.3E+05	6.3E+04	1E-05	5E-10
317 244TH ST	1,4-Dioxane	4.8E+01	1.3E+08	1.6E+05	4E-07	3E-09
317 244TH ST	2-Butanone (Methyl Ethyl Ketone)	3.6E+01	1.1E+09	--	3E-08	--
317 244TH ST	Bromodichloromethane	8.0E+01	7.2E+07	7.8E+05	1E-06	1E-09
317 244TH ST	Chloroform	8.4E+03	9.0E+07	4.9E+06	9E-05	2E-08
317 244TH ST	Ethanol	2.0E+01	1.9E+08	--	1E-07	--
317 244TH ST	Methylene Chloride	2.3E+01	6.1E+08	2.8E+07	4E-08	8E-12
317 244TH ST	Naphthalene	1.4E+00	2.3E+05	6.3E+04	6E-06	2E-10
317 244TH ST	Tetrachloroethene	1.6E+01	5.5E+07	6.6E+06	3E-07	2E-11
321 244TH ST	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	1.1E+09	--	1E-08	--
321 244TH ST	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
321 244TH ST	Naphthalene	7.0E+00	2.3E+05	6.3E+04	3E-05	1E-09
327 244TH ST	Chloroform	2.6E+01	9.0E+07	4.9E+06	3E-07	5E-11
327 244TH ST	Ethanol	1.4E+01	1.9E+08	--	7E-08	--
327 244TH ST	Naphthalene	1.1E+00	2.3E+05	6.3E+04	5E-06	2E-10
331 244TH ST	1,4-Dioxane	1.8E+01	1.3E+08	1.6E+05	1E-07	1E-09
331 244TH ST	2-Butanone (Methyl Ethyl Ketone)	3.5E+00	1.1E+09	--	3E-09	--
331 244TH ST	Benzene	1.3E+01	3.2E+07	1.0E+06	4E-07	1E-10
331 244TH ST	Cumene (Isopropylbenzene)	1.5E+01	1.5E+09	--	1E-08	--
331 244TH ST	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
331 244TH ST	Heptane	8.6E+00	2.3E+09	--	4E-09	--
331 244TH ST	Hexane	1.3E+01	1.7E+09	--	8E-09	--
331 244TH ST	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
331 244TH ST	Naphthalene	4.0E+00	2.3E+05	6.3E+04	2E-05	6E-10
331 244TH ST	Tetrachloroethene	1.8E+01	5.5E+07	6.6E+06	3E-07	3E-11
337 244TH ST	2-Butanone (Methyl Ethyl Ketone)	3.5E+00	1.1E+09	--	3E-09	--
337 244TH ST	Chloroform	6.0E+00	9.0E+07	4.9E+06	7E-08	1E-11
337 244TH ST	Ethanol	2.1E+01	1.9E+08	--	1E-07	--
337 244TH ST	Naphthalene	3.5E-01	2.3E+05	6.3E+04	2E-06	6E-11
337 244TH ST	Tetrahydrofuran	1.1E+01	4.9E+08	--	2E-08	--
341 244TH ST	2-Butanone (Methyl Ethyl Ketone)	8.5E+00	1.1E+09	--	7E-09	--
341 244TH ST	Benzene	4.4E+00	3.2E+07	1.0E+06	1E-07	4E-11
341 244TH ST	Carbon Disulfide	4.0E+01	1.4E+09	--	3E-08	--
341 244TH ST	Ethanol	1.6E+01	1.9E+08	--	8E-08	--
341 244TH ST	Isopropanol	4.3E+01	5.7E+08	--	8E-08	--
341 244TH ST	Naphthalene	4.8E+00	2.3E+05	6.3E+04	2E-05	8E-10
344 249TH ST	2-Butanone (Methyl Ethyl Ketone)	1.0E+01	1.1E+09	--	9E-09	--
344 249TH ST	Carbon Disulfide	3.9E+00	1.4E+09	--	3E-09	--
344 249TH ST	Chloroform	3.1E+02	9.0E+07	4.9E+06	3E-06	6E-10
344 249TH ST	Methylene Chloride	9.7E+00	6.1E+08	2.8E+07	2E-08	3E-12
344 249TH ST	Naphthalene	2.1E+00	2.3E+05	6.3E+04	9E-06	3E-10
344 249TH ST	p/m-Xylene	7.1E+00	5.9E+07	--	1E-07	--
345 249TH ST	1,2,4-Trimethylbenzene	9.3E+00	2.3E+06	--	4E-06	--
345 249TH ST	2,2,4-Trimethylpentane	1.6E+01	6.5E+08	--	3E-08	--
345 249TH ST	2-Butanone (Methyl Ethyl Ketone)	1.3E+01	1.1E+09	--	1E-08	--
345 249TH ST	Carbon Disulfide	1.0E+02	1.4E+09	--	7E-08	--
345 249TH ST	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
345 249TH ST	Naphthalene	1.4E+01	2.3E+05	6.3E+04	6E-05	2E-09
345 249TH ST	p/m-Xylene	7.8E+00	5.9E+07	--	1E-07	--
347 244TH ST	2-Butanone (Methyl Ethyl Ketone)	9.1E+00	1.1E+09	--	8E-09	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
347 244TH ST	Carbon Disulfide	5.7E+00	1.4E+09	--	4E-09	--
347 244TH ST	Chloroform	1.1E+01	9.0E+07	4.9E+06	1E-07	2E-11
347 244TH ST	Ethanol	1.0E+01	1.9E+08	--	5E-08	--
347 244TH ST	Hexane	4.8E+00	1.7E+09	--	3E-09	--
347 244TH ST	Naphthalene	2.1E+00	2.3E+05	6.3E+04	9E-06	3E-10
347 244TH ST	Tetrahydrofuran	4.9E+00	4.9E+08	--	1E-08	--
348 248TH ST	2-Butanone (Methyl Ethyl Ketone)	2.2E+01	1.1E+09	--	2E-08	--
348 248TH ST	Benzene	2.4E+01	3.2E+07	1.0E+06	8E-07	2E-10
348 248TH ST	Bromomethane	5.7E+00	9.5E+06	--	6E-07	--
348 248TH ST	Carbon Disulfide	6.9E+00	1.4E+09	--	5E-09	--
348 248TH ST	Carbon Tetrachloride	7.1E+01	1.6E+08	1.1E+06	5E-07	7E-10
348 248TH ST	Chloroform	2.2E+01	9.0E+07	4.9E+06	2E-07	5E-11
348 248TH ST	Ethanol	7.0E+01	1.9E+08	--	4E-07	--
348 248TH ST	Methylene Chloride	6.1E+00	6.1E+08	2.8E+07	1E-08	2E-12
348 248TH ST	Naphthalene	2.1E+00	2.3E+05	6.3E+04	9E-06	3E-10
348 248TH ST	Toluene	1.2E+01	3.7E+09	--	3E-09	--
348 249TH ST	2-Butanone (Methyl Ethyl Ketone)	1.2E+01	1.1E+09	--	1E-08	--
348 249TH ST	Benzene	7.1E+00	3.2E+07	1.0E+06	2E-07	7E-11
348 249TH ST	Carbon Disulfide	6.4E+00	1.4E+09	--	4E-09	--
348 249TH ST	Chloroform	4.1E+01	9.0E+07	4.9E+06	5E-07	8E-11
348 249TH ST	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
348 249TH ST	Naphthalene	4.9E+00	2.3E+05	6.3E+04	2E-05	8E-10
348 249TH ST	Tetrachloroethene	1.1E+01	5.5E+07	6.6E+06	2E-07	2E-11
348 249TH ST	Toluene	3.7E+01	3.7E+09	--	1E-08	--
351 244TH ST	2-Butanone (Methyl Ethyl Ketone)	6.7E+00	1.1E+09	--	6E-09	--
351 244TH ST	Benzene	3.0E+01	3.2E+07	1.0E+06	1E-06	3E-10
351 244TH ST	Carbon Disulfide	8.3E+00	1.4E+09	--	6E-09	--
351 244TH ST	Carbon Tetrachloride	1.0E+01	1.6E+08	1.1E+06	6E-08	1E-10
351 244TH ST	Cumene (Isopropylbenzene)	7.8E+01	1.5E+09	--	5E-08	--
351 244TH ST	Ethanol	1.3E+01	1.9E+08	--	7E-08	--
351 244TH ST	Naphthalene	7.8E+00	2.3E+05	6.3E+04	3E-05	1E-09
351 244TH ST	Toluene	2.8E+01	3.7E+09	--	8E-09	--
352 249TH ST	1,2,4-Trimethylbenzene	1.3E+01	2.3E+06	--	6E-06	--
352 249TH ST	1,4-Dioxane	7.4E+01	1.3E+08	1.6E+05	6E-07	5E-09
352 249TH ST	2,2,4-Trimethylpentane	3.9E+01	6.5E+08	--	6E-08	--
352 249TH ST	2-Butanone (Methyl Ethyl Ketone)	1.2E+01	1.1E+09	--	1E-08	--
352 249TH ST	2-Hexanone	3.4E+00	7.9E+06	--	4E-07	--
352 249TH ST	4-Ethyltoluene	1.6E+01	2.5E+07	--	7E-07	--
352 249TH ST	Benzene	2.0E+01	3.2E+07	1.0E+06	6E-07	2E-10
352 249TH ST	Bromomethane	6.6E+00	9.5E+06	--	7E-07	--
352 249TH ST	Carbon Disulfide	1.8E+01	1.4E+09	--	1E-08	--
352 249TH ST	Chloroform	5.9E+01	9.0E+07	4.9E+06	7E-07	1E-10
352 249TH ST	Cyclohexane	1.3E+01	1.8E+10	--	7E-10	--
352 249TH ST	Ethanol	7.5E+01	1.9E+08	--	4E-07	--
352 249TH ST	Ethylbenzene	2.4E+01	6.3E+08	7.0E+06	4E-08	3E-11
352 249TH ST	Heptane	2.7E+01	2.3E+09	--	1E-08	--
352 249TH ST	Hexane	3.1E+01	1.7E+09	--	2E-08	--
352 249TH ST	Isopropanol	4.0E+00	5.7E+08	--	7E-09	--
352 249TH ST	Methyl-tert-Butyl Ether	1.4E+01	1.8E+09	6.5E+07	8E-09	2E-12
352 249TH ST	Naphthalene	3.0E+00	2.3E+05	6.3E+04	1E-05	5E-10
352 249TH ST	o-Xylene	2.8E+01	5.9E+07	--	5E-07	--
352 249TH ST	p/m-Xylene	9.3E+01	5.9E+07	--	2E-06	--
352 249TH ST	Tetrachloroethene	7.9E+02	5.5E+07	6.6E+06	1E-05	1E-09
352 249TH ST	Toluene	1.9E+02	3.7E+09	--	5E-08	--
353 249TH ST	2,2,4-Trimethylpentane	1.9E+01	6.5E+08	--	3E-08	--
353 249TH ST	2-Butanone (Methyl Ethyl Ketone)	4.4E+01	1.1E+09	--	4E-08	--
353 249TH ST	Benzene	4.0E+00	3.2E+07	1.0E+06	1E-07	4E-11
353 249TH ST	Carbon Disulfide	6.2E+00	1.4E+09	--	4E-09	--
353 249TH ST	Heptane	6.5E+00	2.3E+09	--	3E-09	--
353 249TH ST	Hexane	6.2E+00	1.7E+09	--	4E-09	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
353 249TH ST	Naphthalene	1.3E+00	2.3E+05	6.3E+04	6E-06	2E-10
353 249TH ST	Toluene	3.2E+01	3.7E+09	--	9E-09	--
354 248TH ST	2,2,4-Trimethylpentane	6.3E+01	6.5E+08	--	1E-07	--
354 248TH ST	2-Butanone (Methyl Ethyl Ketone)	1.7E+01	1.1E+09	--	2E-08	--
354 248TH ST	Benzene	6.4E+00	3.2E+07	1.0E+06	2E-07	6E-11
354 248TH ST	Chloroform	1.0E+01	9.0E+07	4.9E+06	1E-07	2E-11
354 248TH ST	Cyclohexane	2.2E+01	1.8E+10	--	1E-09	--
354 248TH ST	Ethanol	2.0E+01	1.9E+08	--	1E-07	--
354 248TH ST	Ethylbenzene	6.9E+00	6.3E+08	7.0E+06	1E-08	1E-11
354 248TH ST	Heptane	7.4E+00	2.3E+09	--	3E-09	--
354 248TH ST	Hexane	1.8E+01	1.7E+09	--	1E-08	--
354 248TH ST	Isopropanol	7.8E+00	5.7E+08	--	1E-08	--
354 248TH ST	Naphthalene	4.3E+00	2.3E+05	6.3E+04	2E-05	7E-10
354 248TH ST	p/m-Xylene	6.6E+00	5.9E+07	--	1E-07	--
354 248TH ST	Toluene	1.8E+01	3.7E+09	--	5E-09	--
357 244TH ST	2,2,4-Trimethylpentane	1.0E+01	6.5E+08	--	2E-08	--
357 244TH ST	2-Butanone (Methyl Ethyl Ketone)	1.5E+01	1.1E+09	--	1E-08	--
357 244TH ST	Benzene	5.2E+00	3.2E+07	1.0E+06	2E-07	5E-11
357 244TH ST	Carbon Disulfide	8.4E+00	1.4E+09	--	6E-09	--
357 244TH ST	Cyclohexane	5.6E+00	1.8E+10	--	3E-10	--
357 244TH ST	Ethanol	3.0E+01	1.9E+08	--	2E-07	--
357 244TH ST	Ethylbenzene	5.4E+00	6.3E+08	7.0E+06	9E-09	8E-12
357 244TH ST	Heptane	1.0E+01	2.3E+09	--	4E-09	--
357 244TH ST	Hexane	6.7E+00	1.7E+09	--	4E-09	--
357 244TH ST	Methylene Chloride	4.4E+00	6.1E+08	2.8E+07	7E-09	2E-12
357 244TH ST	Naphthalene	5.6E+00	2.3E+05	6.3E+04	2E-05	9E-10
357 244TH ST	Propylbenzene	9.4E+00	6.6E+08	--	1E-08	--
357 244TH ST	Toluene	7.6E+00	3.7E+09	--	2E-09	--
357 249TH ST	1,4-Dioxane	1.9E+01	1.3E+08	1.6E+05	1E-07	1E-09
357 249TH ST	2-Butanone (Methyl Ethyl Ketone)	4.5E+00	1.1E+09	--	4E-09	--
357 249TH ST	Benzene	3.7E+01	3.2E+07	1.0E+06	1E-06	4E-10
357 249TH ST	Carbon Disulfide	2.5E+01	1.4E+09	--	2E-08	--
357 249TH ST	Chloroform	4.7E+01	9.0E+07	4.9E+06	5E-07	1E-10
357 249TH ST	Cumene (Isopropylbenzene)	6.8E+00	1.5E+09	--	5E-09	--
357 249TH ST	Ethanol	2.0E+01	1.9E+08	--	1E-07	--
357 249TH ST	Isopropanol	2.5E+01	5.7E+08	--	4E-08	--
357 249TH ST	Toluene	9.2E+00	3.7E+09	--	3E-09	--
358 249TH ST	2-Butanone (Methyl Ethyl Ketone)	9.4E+00	1.1E+09	--	8E-09	--
358 249TH ST	Benzene	2.1E+01	3.2E+07	1.0E+06	7E-07	2E-10
358 249TH ST	Carbon Disulfide	1.0E+01	1.4E+09	--	7E-09	--
358 249TH ST	Cumene (Isopropylbenzene)	1.1E+01	1.5E+09	--	8E-09	--
358 249TH ST	Cyclohexane	2.7E+01	1.8E+10	--	2E-09	--
358 249TH ST	Ethanol	2.0E+01	1.9E+08	--	1E-07	--
358 249TH ST	Isopropanol	1.3E+01	5.7E+08	--	2E-08	--
358 249TH ST	Methylene Chloride	8.1E+00	6.1E+08	2.8E+07	1E-08	3E-12
358 249TH ST	Naphthalene	4.4E+00	2.3E+05	6.3E+04	2E-05	7E-10
358 249TH ST	p/m-Xylene	5.8E+00	5.9E+07	--	1E-07	--
358 249TH ST	Tetrachloroethene	1.8E+01	5.5E+07	6.6E+06	3E-07	3E-11
358 249TH ST	Tetrahydrofuran	4.1E+01	4.9E+08	--	8E-08	--
358 249TH ST	Toluene	5.1E+01	3.7E+09	--	1E-08	--
358 249TH ST	trans-1,2-Dichloroethene	1.2E+01	9.3E+07	--	1E-07	--
360 248TH ST	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	1.1E+09	--	1E-08	--
360 248TH ST	Benzene	3.7E+01	3.2E+07	1.0E+06	1E-06	4E-10
360 248TH ST	Chloroform	3.0E+00	9.0E+07	4.9E+06	3E-08	6E-12
360 248TH ST	Cyclohexane	9.6E+02	1.8E+10	--	5E-08	--
360 248TH ST	Ethanol	1.1E+03	1.9E+08	--	6E-06	--
360 248TH ST	Ethylbenzene	9.6E+00	6.3E+08	7.0E+06	2E-08	1E-11
360 248TH ST	Heptane	3.1E+01	2.3E+09	--	1E-08	--
360 248TH ST	Hexane	1.2E+01	1.7E+09	--	7E-09	--
360 248TH ST	Naphthalene	1.1E+00	2.3E+05	6.3E+04	5E-06	2E-10

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
361 244TH ST	1,2,4-Trimethylbenzene	6.9E+00	2.3E+06	--	3E-06	--
361 244TH ST	2-Butanone (Methyl Ethyl Ketone)	7.8E+00	1.1E+09	--	7E-09	--
361 244TH ST	Carbon Disulfide	1.0E+01	1.4E+09	--	7E-09	--
361 244TH ST	Chloroform	6.0E+00	9.0E+07	4.9E+06	7E-08	1E-11
361 244TH ST	cis-1,2-Dichloroethene	5.2E+00	8.3E+06	--	6E-07	--
361 244TH ST	Cyclohexane	6.8E+03	1.8E+10	--	4E-07	--
361 244TH ST	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
361 244TH ST	Heptane	6.8E+01	2.3E+09	--	3E-08	--
361 244TH ST	Hexane	7.5E+03	1.7E+09	--	5E-06	--
361 244TH ST	Isopropanol	1.4E+01	5.7E+08	--	3E-08	--
361 244TH ST	Naphthalene	5.3E+00	2.3E+05	6.3E+04	2E-05	8E-10
361 244TH ST	o-Xylene	5.0E+00	5.9E+07	--	8E-08	--
361 244TH ST	p/m-Xylene	1.3E+01	5.9E+07	--	2E-07	--
361 244TH ST	Toluene	2.3E+01	3.7E+09	--	6E-09	--
362 249TH ST	2-Butanone (Methyl Ethyl Ketone)	6.5E+00	1.1E+09	--	6E-09	--
362 249TH ST	Benzene	6.6E+00	3.2E+07	1.0E+06	2E-07	7E-11
362 249TH ST	Ethanol	9.4E+00	1.9E+08	--	5E-08	--
362 249TH ST	Naphthalene	1.9E+00	2.3E+05	6.3E+04	8E-06	3E-10
362 249TH ST	Tetrachloroethene	1.3E+02	5.5E+07	6.6E+06	2E-06	2E-10
362 249TH ST	Toluene	5.3E+00	3.7E+09	--	1E-09	--
362 249TH ST	Trichloroethene	1.1E+01	2.0E+06	6.7E+06	6E-06	2E-11
363 249TH ST	Chloroform	6.6E+01	9.0E+07	4.9E+06	7E-07	1E-10
363 249TH ST	Ethanol	3.8E+02	1.9E+08	--	2E-06	--
363 249TH ST	Naphthalene	3.8E+00	2.3E+05	6.3E+04	2E-05	6E-10
363 249TH ST	Toluene	2.3E+01	3.7E+09	--	6E-09	--
364 248TH ST	2-Butanone (Methyl Ethyl Ketone)	1.4E+01	1.1E+09	--	1E-08	--
364 248TH ST	Benzene	3.2E+01	3.2E+07	1.0E+06	1E-06	3E-10
364 248TH ST	Cyclohexane	3.3E+01	1.8E+10	--	2E-09	--
364 248TH ST	Ethanol	1.5E+01	1.9E+08	--	8E-08	--
364 248TH ST	Ethylbenzene	7.4E+00	6.3E+08	7.0E+06	1E-08	1E-11
364 248TH ST	Isopropanol	4.1E+00	5.7E+08	--	7E-09	--
364 248TH ST	Naphthalene	3.5E+00	2.3E+05	6.3E+04	2E-05	6E-10
364 248TH ST	p/m-Xylene	5.4E+00	5.9E+07	--	9E-08	--
364 248TH ST	Toluene	4.3E+00	3.7E+09	--	1E-09	--
367 244TH ST	2-Butanone (Methyl Ethyl Ketone)	6.4E+00	1.1E+09	--	6E-09	--
367 244TH ST	Benzene	2.2E+01	3.2E+07	1.0E+06	7E-07	2E-10
367 244TH ST	Carbon Disulfide	4.8E+00	1.4E+09	--	3E-09	--
367 244TH ST	Ethanol	1.8E+01	1.9E+08	--	9E-08	--
367 249TH ST	1,2,4-Trimethylbenzene	6.5E+00	2.3E+06	--	3E-06	--
367 249TH ST	2-Butanone (Methyl Ethyl Ketone)	2.5E+01	1.1E+09	--	2E-08	--
367 249TH ST	Benzene	4.6E+00	3.2E+07	1.0E+06	2E-07	5E-11
367 249TH ST	Bromomethane	9.3E+00	9.5E+06	--	1E-06	--
367 249TH ST	Chloroform	3.7E+01	9.0E+07	4.9E+06	4E-07	8E-11
367 249TH ST	Ethanol	1.9E+01	1.9E+08	--	1E-07	--
367 249TH ST	Ethylbenzene	8.9E+00	6.3E+08	7.0E+06	1E-08	1E-11
367 249TH ST	Hexane	5.1E+00	1.7E+09	--	3E-09	--
367 249TH ST	Isopropanol	2.6E+01	5.7E+08	--	5E-08	--
367 249TH ST	Methylene Chloride	6.0E+00	6.1E+08	2.8E+07	1E-08	2E-12
367 249TH ST	Naphthalene	6.9E+00	2.3E+05	6.3E+04	3E-05	1E-09
367 249TH ST	Toluene	6.2E+00	3.7E+09	--	2E-09	--
368 249TH ST	Chloroform	1.0E+01	9.0E+07	4.9E+06	1E-07	2E-11
368 249TH ST	Ethanol	2.7E+01	1.9E+08	--	1E-07	--
368 249TH ST	Heptane	5.6E+00	2.3E+09	--	2E-09	--
368 249TH ST	Hexane	7.3E+00	1.7E+09	--	4E-09	--
368 249TH ST	Isopropanol	3.5E+01	5.7E+08	--	6E-08	--
368 249TH ST	Naphthalene	4.2E+00	2.3E+05	6.3E+04	2E-05	7E-10
368 249TH ST	Tetrachloroethene	4.5E+01	5.5E+07	6.6E+06	8E-07	7E-11
368 249TH ST	Toluene	5.0E+00	3.7E+09	--	1E-09	--
373 249TH ST	2,2,4-Trimethylpentane	9.5E+00	6.5E+08	--	2E-08	--
373 249TH ST	Ethanol	1.5E+01	1.9E+08	--	8E-08	--

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC ($\mu\text{g}/\text{m}^3$)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
373 249TH ST	Naphthalene	1.6E+00	2.3E+05	6.3E+04	7E-06	3E-10
373 249TH ST	Toluene	7.2E+01	3.7E+09	--	2E-08	--
374 248TH ST	1,2,4-Trimethylbenzene	2.5E+01	2.3E+06	--	1E-05	--
374 248TH ST	1,3,5-Trimethylbenzene	6.9E+00	2.3E+06	--	3E-06	--
374 248TH ST	2,2,4-Trimethylpentane	6.4E+00	6.5E+08	--	1E-08	--
374 248TH ST	2-Butanone (Methyl Ethyl Ketone)	4.1E+00	1.1E+09	--	4E-09	--
374 248TH ST	Benzene	4.7E+00	3.2E+07	1.0E+06	2E-07	5E-11
374 248TH ST	Chloroform	5.5E+01	9.0E+07	4.9E+06	6E-07	1E-10
374 248TH ST	Ethanol	1.0E+01	1.9E+08	--	5E-08	--
374 248TH ST	Ethylbenzene	9.4E+00	6.3E+08	7.0E+06	2E-08	1E-11
374 248TH ST	Heptane	5.9E+00	2.3E+09	--	3E-09	--
374 248TH ST	Hexane	5.6E+00	1.7E+09	--	3E-09	--
374 248TH ST	Isopropanol	1.6E+01	5.7E+08	--	3E-08	--
374 248TH ST	Naphthalene	1.3E+01	2.3E+05	6.3E+04	6E-05	2E-09
374 248TH ST	o-Xylene	7.1E+00	5.9E+07	--	1E-07	--
374 249TH ST	2-Butanone (Methyl Ethyl Ketone)	5.0E+00	1.1E+09	--	4E-09	--
374 249TH ST	Bromodichloromethane	1.2E+01	7.2E+07	7.8E+05	2E-07	2E-10
374 249TH ST	Chloroform	2.1E+02	9.0E+07	4.9E+06	2E-06	4E-10
374 249TH ST	Ethanol	5.0E+01	1.9E+08	--	3E-07	--
374 249TH ST	Naphthalene	1.7E+00	2.3E+05	6.3E+04	7E-06	3E-10
377 244TH ST	2-Butanone (Methyl Ethyl Ketone)	7.4E+00	1.1E+09	--	6E-09	--
377 244TH ST	Benzene	9.9E+00	3.2E+07	1.0E+06	3E-07	1E-10
377 244TH ST	Carbon Disulfide	4.9E+00	1.4E+09	--	3E-09	--
377 244TH ST	Ethanol	2.1E+01	1.9E+08	--	1E-07	--
377 249TH ST	1,2,4-Trimethylbenzene	6.9E+00	2.3E+06	--	3E-06	--
377 249TH ST	2-Butanone (Methyl Ethyl Ketone)	1.6E+01	1.1E+09	--	1E-08	--
377 249TH ST	Chloroform	1.5E+02	9.0E+07	4.9E+06	2E-06	3E-10
377 249TH ST	Ethanol	1.1E+01	1.9E+08	--	6E-08	--
377 249TH ST	Heptane	1.0E+01	2.3E+09	--	4E-09	--
377 249TH ST	Hexane	4.6E+00	1.7E+09	--	3E-09	--
377 249TH ST	Naphthalene	1.2E+01	2.3E+05	6.3E+04	5E-05	2E-09
377 249TH ST	p/m-Xylene	1.2E+01	5.9E+07	--	2E-07	--
378 249TH ST	1,2,4-Trimethylbenzene	2.4E+01	2.3E+06	--	1E-05	--
378 249TH ST	1,3,5-Trimethylbenzene	7.6E+00	2.3E+06	--	3E-06	--
378 249TH ST	1,4-Dioxane	2.2E+01	1.3E+08	1.6E+05	2E-07	1E-09
378 249TH ST	2,2,4-Trimethylpentane	1.4E+05	6.5E+08	--	2E-04	--
378 249TH ST	2-Butanone (Methyl Ethyl Ketone)	3.6E+00	1.1E+09	--	3E-09	--
378 249TH ST	4-Ethyltoluene	2.3E+01	2.5E+07	--	9E-07	--
378 249TH ST	Benzene	6.2E+04	3.2E+07	1.0E+06	2E-03	6E-07
378 249TH ST	Carbon Disulfide	7.9E+00	1.4E+09	--	6E-09	--
378 249TH ST	Chloroform	6.1E+00	9.0E+07	4.9E+06	7E-08	1E-11
378 249TH ST	Cyclohexane	1.2E+04	1.8E+10	--	7E-07	--
378 249TH ST	Ethanol	2.3E+01	1.9E+08	--	1E-07	--
378 249TH ST	Ethylbenzene	5.3E+03	6.3E+08	7.0E+06	8E-06	8E-09
378 249TH ST	Heptane	3.5E+03	2.3E+09	--	2E-06	--
378 249TH ST	Hexane	4.1E+03	1.7E+09	--	3E-06	--
378 249TH ST	Isopropanol	2.8E+03	5.7E+08	--	5E-06	--
378 249TH ST	Methylene Chloride	2.8E+04	6.1E+08	2.8E+07	5E-05	1E-08
378 249TH ST	Naphthalene	2.6E+02	2.3E+05	6.3E+04	1E-03	4E-08
378 249TH ST	o-Xylene	1.8E+01	5.9E+07	--	3E-07	--
378 249TH ST	p/m-Xylene	3.4E+03	5.9E+07	--	6E-05	--
378 249TH ST	Tetrahydrofuran	3.5E+00	4.9E+08	--	7E-09	--
378 249TH ST	Toluene	1.8E+03	3.7E+09	--	5E-07	--
383 249TH ST	1,2,4-Trimethylbenzene	5.5E+02	2.3E+06	--	2E-04	--
383 249TH ST	1,3,5-Trimethylbenzene	1.5E+02	2.3E+06	--	7E-05	--
383 249TH ST	2,2,4-Trimethylpentane	8.5E+00	6.5E+08	--	1E-08	--
383 249TH ST	2-Butanone (Methyl Ethyl Ketone)	7.5E+00	1.1E+09	--	7E-09	--
383 249TH ST	4-Ethyltoluene	3.3E+02	2.5E+07	--	1E-05	--
383 249TH ST	Benzene	5.4E+00	3.2E+07	1.0E+06	2E-07	5E-11
383 249TH ST	Chloroform	2.5E+01	9.0E+07	4.9E+06	3E-07	5E-11

Appendix E
Detailed Risk Calculations

Table E-6
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Location	Constituent of Concern	Maximum Detected EPC (µg/m ³)	Construction and Utility Maintenance Worker			
			SSCGnc	SSCGc	Noncancer Hazard	Cancer Risk
383 249TH ST	Cumene (Isopropylbenzene)	3.2E+01	1.5E+09	--	2E-08	--
383 249TH ST	Ethanol	1.2E+01	1.9E+08	--	6E-08	--
383 249TH ST	Ethylbenzene	6.9E+01	6.3E+08	7.0E+06	1E-07	1E-10
383 249TH ST	Methylene Chloride	5.8E+00	6.1E+08	2.8E+07	1E-08	2E-12
383 249TH ST	Naphthalene	8.1E+01	2.3E+05	6.3E+04	4E-04	1E-08
383 249TH ST	o-Xylene	7.3E+01	5.9E+07	--	1E-06	--
383 249TH ST	p/m-Xylene	2.3E+02	5.9E+07	--	4E-06	--
383 249TH ST	Propylbenzene	8.1E+01	6.6E+08	--	1E-07	--
383 249TH ST	Tetrachloroethene	5.7E+01	5.5E+07	6.6E+06	1E-06	9E-11
383 249TH ST	Toluene	1.5E+01	3.7E+09	--	4E-09	--
402 249TH ST	2-Butanone (Methyl Ethyl Ketone)	7.9E+00	1.1E+09	--	7E-09	--
402 249TH ST	Benzene	1.5E+01	3.2E+07	1.0E+06	5E-07	2E-10
402 249TH ST	Carbon Disulfide	8.2E+01	1.4E+09	--	6E-08	--
402 249TH ST	Chloroform	6.2E+01	9.0E+07	4.9E+06	7E-07	1E-10
402 249TH ST	Ethanol	4.6E+01	1.9E+08	--	2E-07	--
402 249TH ST	Ethylbenzene	5.8E+00	6.3E+08	7.0E+06	9E-09	8E-12
402 249TH ST	Isopropanol	1.0E+01	5.7E+08	--	2E-08	--
402 249TH ST	Naphthalene	3.3E+00	2.3E+05	6.3E+04	1E-05	5E-10
402 249TH ST	p/m-Xylene	9.1E+00	5.9E+07	--	2E-07	--
402 249TH ST	Tetrachloroethene	8.1E+00	5.5E+07	6.6E+06	2E-07	1E-11
402 249TH ST	Tetrahydrofuran	7.9E+00	4.9E+08	--	2E-08	--
402 249TH ST	Toluene	3.5E+01	3.7E+09	--	1E-08	--
402 249TH ST	trans-1,2-Dichloroethene	6.2E+00	9.3E+07	--	7E-08	--
408 249TH ST	1,4-Dioxane	2.7E+01	1.3E+08	1.6E+05	2E-07	2E-09
408 249TH ST	2,2,4-Trimethylpentane	8.0E+00	6.5E+08	--	1E-08	--
408 249TH ST	Benzene	3.7E+01	3.2E+07	1.0E+06	1E-06	4E-10
408 249TH ST	Carbon Disulfide	3.2E+01	1.4E+09	--	2E-08	--
408 249TH ST	Ethanol	1.5E+01	1.9E+08	--	8E-08	--
408 249TH ST	Ethylbenzene	1.1E+01	6.3E+08	7.0E+06	2E-08	2E-11
408 249TH ST	Hexane	5.6E+00	1.7E+09	--	3E-09	--
408 249TH ST	Naphthalene	5.0E-01	2.3E+05	6.3E+04	2E-06	8E-11
408 249TH ST	o-Xylene	1.6E+01	5.9E+07	--	3E-07	--
408 249TH ST	p/m-Xylene	5.3E+01	5.9E+07	--	9E-07	--
408 249TH ST	Toluene	1.4E+02	3.7E+09	--	4E-08	--
412 249TH ST	2-Butanone (Methyl Ethyl Ketone)	4.6E+00	1.1E+09	--	4E-09	--
412 249TH ST	Benzene	4.7E+00	3.2E+07	1.0E+06	2E-07	5E-11
412 249TH ST	Carbon Disulfide	1.7E+01	1.4E+09	--	1E-08	--
412 249TH ST	Ethanol	9.5E+00	1.9E+08	--	5E-08	--
412 249TH ST	Ethylbenzene	6.5E+00	6.3E+08	7.0E+06	1E-08	9E-12
412 249TH ST	Naphthalene	9.1E+00	2.3E+05	6.3E+04	4E-05	1E-09
412 249TH ST	p/m-Xylene	5.2E+00	5.9E+07	--	9E-08	--
412 249TH ST	Tetrachloroethene	3.0E+01	5.5E+07	6.6E+06	5E-07	5E-11
412 249TH ST	Tetrahydrofuran	3.7E+00	4.9E+08	--	8E-09	--
412 249TH ST	Toluene	1.2E+01	3.7E+09	--	3E-09	--

Notes:

" -- " not applicable

COC = Constituent of Concern; EPC = exposure point concentration

SSCG = Site-specific cleanup goals; SSCGnc = based on noncancer effects; SSCGc = based on cancer effects

No COC-specific noncancer hazard or COC-specific cancer risk >1 nor >1E-05, respectively

Appendix E
Detailed Risk Calculations

Table E-7
COC-Specific Risk and Hazard Results, Streets
Construction and Utility Maintenance Worker
Soil ≤10 ft bgs

Constituent of Concern	Units	SSCGnc	SSCGc	Construction and Utility Maintenance Worker							
				EPC Based on Max				EPC Based on 95UCL ¹			
				EPC	EPC Basis	Noncancer Hazard	Cancer Risk	EPC	EPC Basis	Noncancer Hazard	Cancer Risk
1,2,3-Trichloropropane	µg/kg	2.0E+03	7.2E+03	1.3E+02	Max	7E-02	2E-07	1.3E+02	Max	7E-02	2E-07
1,2,4-Trimethylbenzene	µg/kg	7.5E+04	--	8.4E+04	Max	1E+00	--	8.0E+03	95UCL	1E-01	--
1,3,5-Trimethylbenzene	µg/kg	7.7E+04	--	3.1E+04	Max	4E-01	--	1.7E+03	95UCL	2E-02	--
1-Methylnaphthalene	mg/kg	1.9E+05	2.7E+03	4.9E+01	Max	3E-04	2E-07	6.1E+00	95UCL	3E-05	2E-08
2-Methylnaphthalene	mg/kg	1.1E+04	--	8.5E+01	Max	8E-03	--	1.3E+01	95UCL	1E-03	--
Antimony	mg/kg	3.1E+03	--	4.9E+00	Max	2E-03	--	3.5E-01	95UCL	1E-04	--
Benzene	µg/kg	6.9E+04	2.2E+03	3.3E+04	Max	5E-01	1E-04	2.6E+03	95UCL	4E-02	1E-05
Benzo (a) Anthracene	mg/kg	--	2.6E+02	9.7E+00	Max	--	4E-07	4.7E-01	95UCL	--	2E-08
Benzo (a) Pyrene	mg/kg	--	2.6E+01	6.2E+00	Max	--	2E-06	3.1E-01	95UCL	--	1E-07
Benzo (b) Fluoranthene	mg/kg	--	2.6E+02	3.2E+00	Max	--	1E-07	1.7E-01	95UCL	--	7E-09
Benzo (k) Fluoranthene	mg/kg	--	2.6E+02	2.7E-01	Max	--	1E-08	8.5E-03	95UCL	--	3E-10
Bromodichloromethane	µg/kg	4.9E+05	5.3E+03	1.3E+03	Max	3E-03	2E-06	1.3E+03	Max	3E-03	3E-06
Bromomethane	µg/kg	7.8E+03	--	4.9E+02	Max	6E-02	--	4.6E+02	95UCL	6E-02	--
Cadmium	mg/kg	6.4E+02	2.4E+02	1.3E+00	Max	2E-03	5E-08	2.0E-01	95UCL	3E-04	8E-09
Chrysene	mg/kg	--	2.6E+03	7.2E+01	Max	--	3E-07	3.9E+00	95UCL	--	2E-08
Cobalt	mg/kg	2.0E+02	1.1E+02	2.7E+01	Max	1E-01	2E-06	9.5E+00	95UCL	5E-02	8E-07
Copper	mg/kg	3.1E+05	--	4.7E+01	Max	2E-04	--	1.9E+01	95UCL	6E-05	--
Dibenz (a,h) Anthracene	mg/kg	--	1.9E+01	1.1E-01	Max	--	6E-08	6.3E-03	95UCL	--	3E-09
Ethylbenzene	µg/kg	4.5E+06	5.1E+04	4.2E+04	Max	9E-03	8E-06	5.3E+03	95UCL	1E-03	1E-06
Indeno (1,2,3-c,d) Pyrene	mg/kg	--	2.6E+02	1.8E+00	Max	--	7E-08	5.8E-02	95UCL	--	2E-09
Lead	mg/kg	1.2E+03	--	2.0E+02	Max	2E-01	--	1.6E+01	95UCL	1E-02	--
Methylene Chloride	µg/kg	1.2E+06	5.9E+04	2.3E+02	Max	2E-04	4E-08	2.3E+02	Max	2E-04	4E-08
Naphthalene	mg/kg	1.4E+02	3.9E+01	4.7E+01	Max	3E-01	1E-05	7.0E+00	95UCL	5E-02	2E-06
Pyrene	mg/kg	6.7E+04	--	1.2E+02	Max	2E-03	--	6.1E+00	95UCL	9E-05	--
Tetrachloroethene	µg/kg	8.6E+04	1.0E+04	2.9E+01	Max	3E-04	3E-08	2.9E+01	Max	3E-04	3E-08
Thallium	mg/kg	7.7E+01	--	2.9E+00	Max	4E-02	--	2.1E-01	95UCL	3E-03	--
Toluene	µg/kg	1.6E+07	--	1.2E+04	Max	7E-04	--	5.8E+02	95UCL	4E-05	--
TPH as Diesel	mg/kg	1.9E+03	--	8.2E+04	Max	4E+01	--	8.3E+03	95UCL	4E+00	--
TPH as Gasoline	mg/kg	8.6E+02	--	9.8E+03	Max	1E+01	--	1.2E+03	95UCL	1E+00	--
TPH as Motor Oil	mg/kg	1.6E+05	--	1.2E+05	Max	8E-01	--	1.2E+04	95UCL	7E-02	--
Vanadium	mg/kg	3.3E+03	--	7.8E+01	Max	2E-02	--	3.5E+01	95UCL	1E-02	--
Xylenes, Total	µg/kg	4.7E+05	--	1.4E+05	Max	3E-01	--	1.2E+04	95UCL	2E-02	--
Zinc	mg/kg	2.3E+06	--	4.3E+02	Max	2E-04	--	5.6E+01	95UCL	2E-05	--
Cumulative Noncancer Hazard and Cancer Risk =						6E+01	2E-04			6E+00	2E-05

Notes:

"--" not applicable

COC = Constituent of Concern; EPC = exposure point concentration; 95UCL = 95 percent upper confidence limit

Soil ≤10 ft bgs = less than or equal to 10 feet below ground surface

SSCG = Site-specific cleanup goals; SSCGnc = based on noncancer effects; SSCGc = based on cancer effects

¹ EPCs were based on the 95UCLs; however, if not available, the maximum detect (Max) was used as the EPC.

Bold + Shaded if COC-specific noncancer hazard >1 or COC-specific cancer risk >1E-05

Appendix E
Detailed Risk Calculations

Table E-8
COC-Specific Risk and Hazard Results
Construction and Utility Maintenance Worker
Soil Vapor to Outdoor Air

Constituent of Concern	SSCGnc	SSCGc	Construction and Utility Maintenance Worker							
			EPC Based on Max				EPC Based on 95UCL ¹			
			EPC (µg/m ³)	EPC Basis	Noncancer Hazard	Cancer Risk	EPC (µg/m ³)	EPC Basis	Noncancer Hazard	Cancer Risk
1,1,2,2-Tetrachloroethane	1.8E+07	1.2E+05	9.0E+03	Max	5E-04	7E-07	9.0E+03	Max	5E-04	7E-07
1,1,2-Trichloroethane	1.0E+05	8.6E+05	7.1E+00	Max	7E-05	8E-11	7.1E+00	Max	7E-05	8E-11
1,1-Dichloroethane	9.9E+08	2.5E+07	2.0E+02	Max	2E-07	8E-11	2.0E+02	Max	2E-07	8E-11
1,2,4-Trimethylbenzene	2.3E+06	--	9.9E+05	Max	4E-01	--	3.5E+04	95UCL	2E-02	--
1,2-Dichloroethane	4.4E+06	8.5E+05	1.7E+03	Max	4E-04	2E-08	4.2E+01	95UCL	1E-05	5E-10
1,3,5-Trimethylbenzene	2.3E+06	--	4.5E+05	Max	2E-01	--	1.5E+04	95UCL	7E-03	--
1,4-Dichlorobenzene	2.3E+08	7.2E+05	1.7E+02	Max	8E-07	2E-09	1.7E+02	Max	8E-07	2E-09
2,2,4-Trimethylpentane	6.5E+08	--	1.4E+01	Max	2E-08	--	1.4E+01	Max	2E-08	--
2-Butanone (Methyl Ethyl Ketone)	1.1E+09	--	1.6E+05	Max	1E-04	--	8.7E+03	95UCL	8E-06	--
2-Hexanone	7.9E+06	--	1.6E+04	Max	2E-03	--	5.4E+02	95UCL	7E-05	--
4-Ethyltoluene	2.5E+07	--	4.4E+05	Max	2E-02	--	1.6E+04	95UCL	6E-04	--
Benzene	3.2E+07	1.0E+06	3.8E+06	Max	1E-01	4E-05	1.6E+05	95UCL	5E-03	2E-06
Bromodichloromethane	7.2E+07	7.8E+05	1.2E+04	Max	2E-04	2E-07	1.2E+04	Max	2E-04	2E-07
Bromomethane	9.5E+06	--	1.4E+00	Max	1E-07	--	1.4E+00	Max	2E-07	--
Carbon Disulfide	1.4E+09	--	1.7E+05	Max	1E-04	--	8.5E+03	95UCL	6E-06	--
Chloroform	9.0E+07	4.9E+06	3.7E+02	Max	4E-06	8E-10	1.3E+01	95UCL	2E-07	3E-11
cis-1,2-Dichloroethene	8.3E+06	--	6.9E+02	Max	8E-05	--	1.6E+01	95UCL	2E-06	--
Cumene (Isopropylbenzene)	1.5E+09	--	3.1E+04	Max	2E-05	--	6.7E+03	95UCL	5E-06	--
Cyclohexane	1.8E+10	--	2.7E+06	Max	1E-04	--	2.0E+05	95UCL	1E-05	--
Ethanol	1.9E+08	--	5.4E+04	Max	3E-04	--	2.5E+03	95UCL	1E-05	--
Ethylbenzene	6.3E+08	7.0E+06	1.8E+06	Max	3E-03	3E-06	7.6E+04	95UCL	1E-04	1E-07
Heptane	2.3E+09	--	1.0E+06	Max	4E-04	--	6.2E+04	95UCL	3E-05	--
Hexachloro-1,3-Butadiene	2.2E+05	8.0E+04	2.0E+03	Max	9E-03	2E-07	2.0E+03	Max	9E-03	3E-07
Hexane	1.7E+09	--	1.9E+06	Max	1E-03	--	1.1E+05	95UCL	7E-05	--
Isopropanol	5.7E+08	--	4.5E+05	Max	8E-04	--	2.5E+04	95UCL	4E-05	--
Methylene Chloride	6.1E+08	2.8E+07	7.3E+03	Max	1E-05	3E-09	2.6E+02	95UCL	4E-07	9E-11
Methyl-tert-Butyl Ether	1.8E+09	6.5E+07	2.8E+03	Max	2E-06	4E-10	8.3E+01	95UCL	5E-08	1E-11
Naphthalene	2.3E+05	6.3E+04	5.2E+03	Max	2E-02	8E-07	1.1E+03	95UCL	5E-03	2E-07
o-Xylene	5.9E+07	--	2.1E+04	Max	4E-04	--	1.2E+03	95UCL	2E-05	--
p/m-Xylene	5.9E+07	--	1.7E+05	Max	3E-03	--	2.1E+04	95UCL	4E-04	--
Propylbenzene	6.6E+08	--	3.7E+04	Max	6E-05	--	8.0E+03	95UCL	1E-05	--
Tetrachloroethene	5.5E+07	6.6E+06	5.3E+03	Max	1E-04	8E-09	2.4E+02	95UCL	4E-06	4E-10
Tetrahydrofuran	4.9E+08	--	8.5E+00	Max	2E-08	--	8.5E+00	Max	2E-08	--
Toluene	3.7E+09	--	3.7E+06	Max	1E-03	--	1.2E+05	95UCL	3E-05	--
trans-1,2-Dichloroethene	9.3E+07	--	5.6E+03	Max	6E-05	--	1.0E+02	95UCL	1E-06	--
trans-1,3-Dichloropropene	4.4E+07	3.9E+06	6.5E+00	Max	1E-07	2E-11	6.5E+00	Max	2E-07	2E-11
Trichloroethene	2.0E+06	6.7E+06	6.6E+03	Max	3E-03	1E-08	1.2E+02	95UCL	6E-05	2E-10
Vinyl Chloride	2.3E+08	8.3E+05	4.6E+00	Max	2E-08	6E-11	4.6E+00	Max	2E-08	6E-11
Cumulative Noncancer Hazard and Cancer Risk =					8E-01	4E-05			4E-02	3E-06

Notes:

" -- " not applicable

COC = Constituent of Concern; EPC = exposure point concentration; 95UCL = 95 percent upper confidence limit

SSCG = Site-specific cleanup goals; SSCGnc = based on noncancer effects; SSCGc = based on cancer effects

¹ EPCs were based on the 95UCLs; however, if not available, the maximum detect (Max) was used as the EPC.

Bold + Shaded if COC-specific noncancer hazard >1 or COC-specific cancer risk >1E-05

EXHIBIT 11

Los Angeles Regional Water Quality Control Board

April 30, 2014

Mr. Douglas Weimer
Shell Oil Products, United States
Environmental Services Company
20945 S. Wilmington Avenue
Carson, CA 90810

SUBJECT: REVIEW OF REMEDIAL ACTION PLAN, FEASIBILITY STUDY REPORT AND HUMAN HEALTH RISK ASSESSMENT REPORT PURSUANT TO CALIFORNIA WATER CODE SECTION 13304 ORDER

SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET, CARSON, CALIFORNIA (SCP NO. 1230, SITE ID 2040330, CAO NO. R4-2011-0046)

Dear Mr. Weimer:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the lead agency overseeing the environmental investigation and cleanup of the Former Kast Property Tank Farm Site (Site) under the authority of the Porter-Cologne Water Quality Control Act (Cal. Water Code §§13000 et seq.) and other applicable laws and regulations. Pursuant to Water Code sections 13304 and 13267, the Regional Board issued Cleanup and Abatement Order No. R4-2011-0046 (CAO) on March 11, 2011, requiring Shell Oil Products US (SOPUS) on behalf of Shell Oil Company (collectively, Shell) to investigate and clean up discharges of waste in soil and groundwater at the Site.

In the CAO, the Regional Board required Shell to submit a Remedial Action Plan, including a Feasibility Study, and a Human Health Risk Assessment for the Site. As required by the CAO, URS Corporation (URS) and Geosyntec submitted, on behalf of Shell, documents titled *Remedial Action Plan (RAP)*, *Feasibility Study Report (FS)*, and *Human Health Risk Assessment Report (HHRA)* for the Site on March 10, 2014 to the Regional Board for review.

The Regional Board has reviewed the RAP, FS, and HHRA, and provides the following comments and direction to Shell. This letter provides a description of the site background, a summary of the requirements of the CAO and State Water Resources Control Board (State Water Board) Resolution 92-49 (Resolution 92-49), a summary of the remedial actions proposed by Shell, comments on the RAP and the FS, and direction to Shell to revise the RAP and FS

consistent with the comments. In conducting its review, the Regional Board received and considered comments from the Office of Environmental Health Hazard Assessment (OEHHA) (See Attachment I) and from the University of California, Los Angeles (UCLA) Expert Panel (convened to provide input to the Regional Board regarding site cleanup), (See Attachment II). This letter also directs Shell to revise the RAP, FS, and HHRA consistent with comments from OEHHA and the UCLA Expert Panel.

BACKGROUND

From the 1920s to the mid-1960s, Shell operated a tank farm consisting of three large reservoirs used for storage of crude oil. In the 1960s, crude oil was removed from the reservoirs and the reservoirs were partially dismantled, leaving behind the concrete floor and sides of the reservoirs and residual petroleum hydrocarbons and other associated waste at the Site. The concrete floor was broken up, the property was graded and a housing development with 285 residences – the Carousel Tract – was constructed above the reservoir remnants and other residual waste at the Site.

Upon discovery of waste at the Site in 2008, the Regional Board, in an order issued pursuant to California Water Code section 13267, ordered Shell to investigate the nature and extent of the waste. Since that time, Shell has conducted extensive investigations of the Site that have determined the nature and extent of the waste and evaluated indoor air quality of private houses and the potential for vapors generated by the waste to affect indoor quality (i.e. vapor intrusion potential) at the Site.

Waste was detected across the entire site at depths to ten feet below ground surface (bgs); in some areas waste was detected to the water table at depths greater than 50 feet bgs. Waste was detected in soil, soil vapor and groundwater and consisted of total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs) including, but not limited to, benzene and volatile chlorinated compounds, semi-volatile organic compounds (SVOCs) including polycyclic aromatic hydrocarbons (PAHs), and methane. In addition, crude oil was detected as a separate phase light non-aqueous phase liquid (LNAPL) above the groundwater that underlies the Site.

The CAO required Shell to submit proposed site-specific cleanup goals (SSCGs) for residential (i.e., unrestricted) land use for Regional Board approval. The CAO required that SSCGs that are approved by the Regional Board were to be used in developing the RAP. On February 22, 2013, Shell submitted a SSCG Report to the Regional Board that proposed SSCGs for waste constituents of concern (COCs) in soil, soil vapor and groundwater. In a letter dated August 21, 2013, the Regional Board responded to the SSCG Report and notified Shell that the proposed SSCGs were not approved. The August 21, 2013 letter directed Shell to revise the SSCGs in accordance with comments and directives contained in the letter, including comments from the OEHHA, and the UCLA Expert Panel.

On October 21, 2013, Shell submitted a revised SSCG Report (Revised SSCG Report) that included revised SSCGs and a screening feasibility study that provided a technological and

economic feasibility analysis of several remediation scenarios for the Site. The Regional Board reviewed the Revised SSCG Report and found that some of the revised SSCGs did not meet the Regional Board's directive in the August 21, 2013 letter. The Regional Board found that the revised SSCGs proposed by Shell did not adequately address issues of TPH leaching to groundwater from soil, nor the potential for soil vapor to intrude into houses. Consequently, the Regional Board modified some of the SSCGs in a letter dated January 23, 2014 and directed Shell to submit the RAP and updated HHRA in accordance with the approved and modified SSCGs by March 10, 2014.

On March 10, 2014, Shell submitted a RAP, FS, and HHRA. The RAP focuses on cleanup of waste in soil, soil vapor and groundwater based on an evaluation of cleanup alternatives that is provided in the FS. The HHRA evaluates present and future health risks to residents on a Site-wide basis to assist in the evaluation of cleanup alternatives. Documents regarding the Site may be found at <http://www.waterboards.ca.gov/losangeles/Kast/index.shtml>. This letter provides Regional Board comments on the RAP, FS and HHRA and directs Shell to revise the RAP, FS and HHRA to address the Regional Board, OEHHA and UCLA Expert Panel comments.

REQUIREMENTS OF THE CAO AND STATE BOARD RESOLUTION 92-49

The CAO states with regard to the RAP and FS:

- I. The RAP shall include, at a minimum, but is not limited to:
 - i. A detailed plan for remediation of waste in shallow soil that will incorporate the results from the Soil Vapor Extraction Pilot Test currently being performed;
 - ii. A plan to address any impacted area beneath any existing paved areas and concrete slab foundations of the homes, if warranted;
 - iii. A detailed surface containment and soil management plan;
 - iv. An evaluation of all available options including proposed selected methods for remediation of shallow soil and soil vapor;
 - v. Continuation of interim measures for mitigation according to the Regional Board approved Interim Remediation Action Plan (IRAP); and
 - vi. A schedule of actions to implement the RAP.
- II. The RAP, at a minimum, shall apply the following guidelines and Policies to cleanup waste and abate the effects of waste in soil and groundwater. The cleanup goals shall include, at a minimum:
 - i. Soil cleanup goals set forth in the Regional Board's *Interim Site Assessment and Cleanup Guidebook, May 1996*, waste concentrations, depth to the water table, the nature of the chemicals, soil conditions and texture, and attenuation trends,

human health protection levels set forth in *USEPA Regional Screening Levels (Formerly Preliminary Remediation Goals)*, for evaluation of the potential intrusion of subsurface vapors (soil vapor) into buildings and subsequent impact to indoor air quality, California Environmental Protection Agency's *Use of Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties*, dated January 2005, or its latest version, and Total Petroleum Hydrocarbon Criteria Working Group, Volumes 1 through 5, 1997, 1998, 1999; Commonwealth of Massachusetts, Department of Environmental Protection, *Characterizing Risks Posed by Petroleum Contaminated Sites: Implementation of MADEP VPH/EPH approach*; MADEP 2002; Commonwealth of Massachusetts, Department of Environmental Protection, *Updated Petroleum Hydrocarbon Fraction Toxicity Values for the VPH/EPH/APH Methodology*; MADEP 2003; Commonwealth of Massachusetts, Department of Environmental Protection, *Method for the Determination of Air-Phase Petroleum Hydrocarbons (APH) Final*, MADEP 2008, Soil vapor sampling requirements are stated in the *DTSC Interim Guidance* and the Regional Board's *Advisory – Active Soil Gas Investigations*, dated January 28, 2003, or its latest version, *DTSC's Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air*, revised February 7, 2005, or its latest version, *USEPA Risk Assessment Guidance for Superfund, Parts A through E*; *USEPA User's Guide for Evaluating Subsurface Vapor Intrusion into Buildings*, 2003; *USEPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites*, 2002; *USEPA Supplemental Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites*, 2002; *CalEPA Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities*, CalEPA DTSC, February 1997; *CalEPA Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbons (PAH) Studies in the Manufactured Gas Plant Site Cleanup Process*, CalEPA DTSC, July 2009. Cleanup goals for all contaminants of concern shall be based on residential (i.e., unrestricted) land use;

- ii. Groundwater cleanup goals shall at a minimum achieve applicable Basin Plan water quality objectives, including California's Maximum Contaminant Levels or Action Levels for drinking water as established by the California Department of Public Health, and the State Water Resources Control Board's "Antidegradation Policy" (State Board Resolution No. 68-16), at a point of compliance approved by the Regional Board, and comply with other applicable implementation programs in the Basin Plan;
- iii. The State Water Resources Control Board's "Antidegradation Policy", which requires attainment of background levels of water quality or the highest level of water quality that is reasonable in the event that background levels cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of water, and not result in exceedence of water quality objectives in the Regional Board's Basin Plan; and

- iv. The State Water Resources Control Board's "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304" (State Water Board Resolution No. 92-49), requires cleanup to background or the best water quality which is reasonable if background levels cannot be achieved and sets forth criteria to consider where cleanup to background water quality may not be reasonable.
- III. The Discharger shall submit site-specific cleanup goals for residential (i.e., unrestricted) land use for the Executive Officer's approval concurrent with the submittal date of the Pilot Test Report. The proposed site-specific cleanup goals shall include detailed technical rationale and assumptions underlying each goal.

The selected remedy is required to be consistent with State Water Board Resolution 92-49. Resolution 92-49 requires the Regional Board to assure that the cleanup promotes attainment of background water quality or the best water quality that is reasonable, is consistent with maximum benefit to the people of the State, and complies with applicable Regional Board and State Water Board plans and policies. In addition, the alternative cleanup level, other than background, must take into account the criteria set forth in section 2550.4 of Title 23, California Code of Regulations, which includes criteria to protect human health and address nuisance conditions. Section 2550.4 requires that the cleanup achieve the lowest levels for constituents of concern (COCs) that are technologically and economically feasible and at least attains maximum contaminant levels where applicable. In establishing a cleanup level greater than background, the Regional Board must consider various factors, including the current and potential future uses of groundwater, the potential for health risks caused by human exposure to waste constituents, and the persistence and permanence of the potential adverse effects.

Resolution 92-49 requires the Regional Board to concur with cleanup and abatement proposals which the discharger demonstrates and the Regional Board finds to have a substantial likelihood to achieve compliance, within a reasonable time frame, with cleanup goals and objectives that implement the applicable Regional Board and State Water Board plans and policies, and which implement permanent cleanup and abatement solutions which do not require ongoing maintenance, wherever feasible. It also requires that the discharger consider the effectiveness, feasibility, and relative costs of applicable alternative methods for investigation, and cleanup and abatement, with supporting rationale.

SUMMARY OF PROPOSED REMEDIAL ACTION PLAN

Based on the evaluation of several remediation alternatives, Shell proposed its preferred alternative in the RAP that includes the following scope of activities:

1. Excavation of shallow soils will be conducted at both landscaped and hardscaped areas of residential properties that have been identified in the Site investigation to have shallow soils containing waste that exceed applicable SSCGs to a depth of three feet bgs;

2. Soil vapor extraction (SVE) and bioventing will be implemented to reduce waste concentrations in soil and soil vapor at residential properties which have been identified having soil or soil vapor that exceed SSCGs at depths below three feet bgs. SVE and biovent wells will be installed in City streets and private yards to implement these technologies;
3. Sub-slab abatement actions, which may include the installation of passive barriers, passive venting, or active sub-slab depressurization systems beneath the houses will be implemented at residential properties that have been identified as having SVE concentrations beneath the house foundations that exceed SSCGs for sub-slab soil vapor;
4. LNAPL will be removed from wells if it accumulates at a thickness of greater than 0.5 feet;
5. Groundwater pollution will be reduced through monitored natural attenuation (MNA). Based on the results of the initial five years of annual MNA data, supplemental remediation in localized areas may be considered; and
6. A Site-wide Remedial Design and Implementation Plan (RDIP) will be developed to provide details on the SVE/bioventing system including vapor well locations, location of the vapor treatment system, and details regarding:
 - a. Sub-slab depressurization (SSD) systems that will be implemented beneath houses where the sub-slab vapor concentrations exceed the applicable SSCGs;
 - b. Property-Specific Remediation Plans (PSRPs), individual property remediation plans, will be prepared for all properties that require excavation, sub-slab mitigation, and/or SVE/bioventing; and
 - c. Permits necessary to implement the RAP, including:
 - Grading Permits from the City of Carson Department of Building and Safety; Traffic Management Plan and Encroachment Permit from the City of Carson Engineering Department;
 - Permits for Rule 1166 Volatile Organic Compound Emissions from Decontamination Soil Mitigation Plan from the South Coast Air Quality Management District (SCAQMD);
 - Permit to Construct/Operate SVE/bioventing equipment from the SCAQMD;
 - Permit to abate asbestos-containing materials for homes that require installation of a sub-slab mitigation system from the SCAQMD; and

- Additional permits needed to address excavation and restoration activities including: OSHA Trenching Permit, Plumbing and Electrical Permits, Masonry Permit, Landscaping Permit, City of Carson electrical, building, and construction permits.

Based on evaluation of Site investigation data and the proposed SSCGs, the RAP indicates that excavations will be conducted at 183 properties and sub-slab mitigation will be implemented at 27 houses. SVE will be implemented across the site and at 210 to 214 houses.

COMMENTS ON REMEDIAL ACTION PLAN

Resolution 92-49, Section III.G requires Regional Boards to *“ensure that dischargers are required to clean up and abate the effects of discharges that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored, considering all demands being made and to be made on those water and the total values involved, beneficial and detrimental, economic and social, tangible and intangible; in approving any alternative cleanup alternative less stringent than background. Any such alternative cleanup level shall:*

- 1. Be consistent with the maximum benefit to the people of the state;*
- 2. Not unreasonably affect present and anticipated beneficial use of such water; and*
- 3. Not result in water quality less than that prescribed in the Water Quality Control Plans and Policies adopted by the State and Regional Water Boards; and*
- 4. Consider the designation of a containment zone.”*

Resolution 92-49 also requires the discharger to consider the effectiveness, feasibility, and relative costs of alternative methods for cleanup and abatement. It also requires that in approving cleanup levels less stringent than background, the Regional Board must apply section 2550.4 of title 23, California Code of Regulations. Section 2550.4, requires in part, that the Regional Board may approve a cleanup level greater than background only if it finds that it is technologically or economically infeasible to achieve background. Resolution 92-49 defines the term “economic feasibility” to mean, in part, *“an objective balancing of the incremental benefit of attaining further reductions in the concentrations of constituents of concern as compared with the incremental cost of achieving those reductions.”* With regard to technological feasibility, Resolution 92-49 states that: *“[t]echnological feasibility is determined by assessing available technologies, which have been shown to be effective under similar hydrogeologic conditions in reducing the concentration of the constituents of concern.”*

Resolution 92-49, Section III.A requires that the Regional Board *“concur with any investigative and cleanup and abatement proposal which the discharger demonstrates and the Regional finds to have a substantial likelihood to achieve compliance, within a reasonable time frame, with cleanup goals and objectives that implement the applicable Water Quality Control Plans and Policies adopted by the State Water Board and Regional Water Boards, and which implement permanent cleanup and abatement solutions which do not require ongoing maintenance, wherever feasible.”*

The cleanup technologies proposed in the RAP include excavation, SVE, bioventing, LNAPL removal, and MNA. Based on cleanup of other sites within the Los Angeles region, these technologies can be effective in cleaning up the types of wastes at the Site if implemented in an effective manner. However, the Regional Board does not concur that the manner in which these technologies are proposed to be implemented by the RAP will attain residential (i.e. unrestricted) land use, protect human health, and protect the beneficial uses of groundwater. The RAP is based, in part, on SSCGs that were not approved by the Regional Board, and consequently the RAP will not achieve the approved SSCGs and cleanup objectives. In addition, based on the Site investigation and pilot tests of cleanup technologies proposed by the RAP, and taking into account the performance of these technologies at other sites in the Los Angeles Region, the Regional Board does not concur that the proposed RAP has a substantial likelihood to achieve compliance with approved SSCGs within a reasonable time frame, nor meet the cleanup goals and objectives that implement the applicable Water Quality Control Plans and Policies in a reasonable time frame for the following reasons:

Site-Specific Cleanup Goals

A primary concern with the RAP is that it does not implement two SSCGs that were approved in the Regional Board's letter of January 23, 2014 which amended the CAO.

1. In developing the RAP, Shell used generic guidance from the Regional Board's Underground Storage Tank (UST) program to define SSCGs for TPH in soil (*Interim Site Assessment and Cleanup Guidebook, May, 1996*). However, there are Site specific data available that indicate the generic UST cleanup goals are not sufficient to reduce the leaching potential of waste from soil to groundwater at the Site. SSCGs for TPH in soil based on Site specific soil characteristics were calculated in the Revised SSCG Report and approved by the Regional Board, however, these approved SSCGs were not used to develop the RAP. Consequently, the generic cleanup goals proposed in the RAP are not appropriate for the Site. The RAP also inappropriately applied a dilution/attenuation factor to the UST program cleanup goals and proposed less stringent SSCGs than are needed to reduce the leaching potential of TPH from soil to groundwater. The dilution/attenuation factor used by Shell to set a less stringent SSCG for TPH in soil was not approved by the Regional Board in the January 23, 2014 letter. The January 23, 2014 letter amended the CAO, approved appropriate SSCGs, and directed Shell to use the approved SSCGs in the development of the RAP. However, the RAP is not based on the SSCGs that are approved by the Regional Board. The Regional Board cannot concur that the SSCGs used to develop the RAP will attain SSCGs necessary to protect groundwater quality.
2. The RAP proposes sub-slab mitigation to reduce vapor intrusion potential at houses at the Site where the SSCGs for soil vapor have been exceeded. Sub-slab mitigation is necessary because the proposed remedy does not include removal of waste beneath houses at the Site. However, the attenuation factor used in the RAP to develop soil vapor SSCGs is not adequately protective of indoor air quality and thereby may not be protective of human health. The RAP is based on a SSCG for soil vapor beneath the house foundations (i.e. sub-slab soil vapor SSCG), but it does not provide a SSCG for soil vapor in shallow soils beyond the footprint of the house slabs (i.e., soil vapor SSCG).

The attenuation factor approved in the Regional Board's January 23, 2014 letter addressed development of SSCGs for soil vapor in shallow soil, not SSCGs in sub-slab soil vapor. By using non-approved SSCGs for sub-slab soil vapor and failing to develop a SSCG for soil vapor in shallow soil, the RAP may underestimate the number of houses that need sub-slab mitigation measures to reduce the potential for vapor intrusion. This issue was discussed in the Regional Board's January 23, 2014 letter and the UCLA Expert Panel Report attached to the Regional Board's January 23, 2013 letter. The Regional Board's January 23, 2013 letter required Shell to consider the results in the Site Delineation Reports (*Plume Delineation Report*, URS, September 29, 2010; and *Supplemental Site Delineation Report*, URS, May 27, 2011) and in the property-by-property investigations in developing the RAP. However, the RAP considered only the results of the property-by-property investigations, and did not consider the Site Delineation Reports.

Excavation

The RAP proposes to excavate impacted soil from areas around houses that contain waste that exceeds SSCGs for TPH and other COCs in soil to a depth of three feet bgs. The Regional Board has several concerns with the excavation proposed by the RAP and FS (discussed further below) pertaining to the proposed excavation depth. Excavations to three feet bgs may not be sufficient to address nuisance caused by waste at the Site, may not protect residents from exposure to waste during some types of residential activities, and will leave a considerable mass of waste in Site soil that can continue to leach to groundwater. The waste mass in soil below three feet bgs will result in an unreasonable time frame needed for other components of the RAP such as SVE, bioventing, and MNA to achieve the SSCGs. Specifically:

1. The Site investigation characterized soil from samples taken at depths of two feet, five feet and ten feet bgs. Waste was detected at all depths investigated and Site data show that the waste concentration, and thus waste mass, increases significantly with depth. Consequently, the proposed RAP excavation depth to three feet leaves significant quantities of waste in soil at levels that exceed the SSCGs necessary to reduce the leaching of waste from soil to groundwater.
2. The RAP relies on SVE, bioventing, free-product removal, and monitored natural attenuation (MNA) to reduce the waste in soil that will not be removed by excavation. However, these technologies have not been proven effective in reducing waste concentrations at the Site in a reasonable time frame as required by Resolution 92-49. The bioventing pilot test (*Biovent Pilot Test Summary Report*, Geosyntec, December 6, 2012) indicated, for example, that time frames of greater than 80 years may be required to reduce waste concentrations to attain the SSCGs for soil. The RAP estimates of SVE duration are based on the time necessary to vent a specific number of soil pore volumes. The basis for the SVE time frame estimates may not be accurate because the mass of sorbed COCs to the Site soils may continue to volatilize into the soil pores as they are vented. Based on information provided in the RAP, the Regional Board cannot concur that SVE and bioventing will attain SSCGs in a reasonable time frame.

3. The RAP indicates that excavation of residential properties to three feet bgs would effectively limit exposure to residents who may engage in gardening or construction of residential yard features that require digging because there are existing institutional controls through the City of Carson building codes. However, the institutional controls cited by the RAP may not be effective in limiting residential exposure to waste because the institutional controls may not apply to excavations that generate small volumes of soil that are typical of residential activities.

SVE/Bioventing, LNAPL Removal and Monitored Natural Attenuation

The RAP proposes a combination of SVE, bioventing, LNAPL (i.e. free-phase product) removal, bioventing, and MNA to ultimately achieve the SSCGs for groundwater.

1. Pilot tests of SVE and bioventing indicated that more than 80 years may be necessary to reduce waste concentrations to a level at which leaching to the groundwater will be reduced in order to attain the SSCGs for groundwater in a reasonable time frame.
2. The RAP proposes LNAPL removal in wells where it accumulates to a depth exceeding 0.5 feet. LNAPL removal has been on-going at the Site for approximately three years. Although free product removal can be an effective technology for removing waste at some cleanup sites, the mass of product removed to date at the Site is a small percentage of the total waste mass remaining at the Site. Consequently, the Regional Board cannot conclude that free product removal will greatly affect the time frame necessary to achieve the SSCGs for groundwater. Further, the Board notes that at other sites in the Los Angeles Region, LNAPL removal to a thickness of a sheen has been shown to be technologically and economically feasible. Consequently, the LNAPL recovery to a thickness of 0.5 feet proposed by the RAP may be less than that which is technologically and economically feasible.

The RAP proposes MNA to reduce concentrations of COCs in groundwater to levels that meet applicable water quality objectives where SVE and bioventing are not effective at achieving the objectives. However, there are no studies of MNA at the site to indicate that MNA will be effective in reducing COC concentrations to levels that meet applicable water quality objectives in a reasonable time frame. Review of the past five years of groundwater monitoring data show COC levels fluctuate and there is no discernable trend of COC reduction in most of the monitoring wells. The RAP proposes that Shell will propose additional remedies if MNA is not effective after five years. Although MNA may be an appropriate component of the remedy, the proposed remedy would leave a significant mass of waste in soil that will continue to leach to groundwater. As a result, the time frame for MNA may be excessive. Therefore, the Regional Board cannot conclude that MNA as proposed in the RAP will attain the groundwater SSCGs in a reasonable time frame.

3. The Regional Board is concerned that the RAP does not adequately discuss the siting of the off-gas treatment facilities that will be required to implement the SVE and bioventing technologies. Based on discussions with Shell contractors, Regional Board staff is concerned that it may not be possible to locate off-gas treatment facilities at the Site because it is zoned for residential use. The RAP fails to discuss plans or contingencies

for siting the SVE treatment facility if the Site is not available to house an SVE treatment facility.

SUMMARY OF THE FEASIBILITY STUDY (FS)

The CAO requires the RAP to, among other criteria, apply various guidelines and policies to cleanup waste in soil and groundwater, to use cleanup goals that protect residential (i.e., unrestricted) land use, and be consistent with Resolution 92-49. Resolution 92-49 requires the discharger to consider the effectiveness, feasibility, and relative costs of applicable alternatives for cleanup and abatement, with the supporting rationale. Where it is not feasible to attain background water quality, Resolution 92-49 requires the cleanup to be based on the factors set forth in title 23 California Code of Regulations section 2550.4. Among other factors, any cleanup less stringent than background must be to the level that is most stringent and technologically and economically and feasible.

The FS provides an analysis of several alternatives to achieve cleanup of the Site based on various guidance, laws, and regulation, including Resolution 92-49 and the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The FS includes a comparative analysis of alternatives using "Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA" [USEPA, 1988]. USEPA guidance provides that alternatives should be evaluated using nine criteria, that include two threshold criteria (overall protection of human health and the environment and compliance with ARARs [applicable or relevant and appropriate requirements]); five balancing criteria (long-term effectiveness and permanence, reduction of toxicity, mobility, and volume through treatment, short-term effectiveness, implementability, and estimated cost); and two acceptance criteria (state acceptance and community acceptance). In general, USEPA's CERCLA Guidance does not directly apply to this Site because the cleanup of the Site is subject to State law, including the Porter-Cologne Water Quality Control Act, the Water Quality Control Plan for the Los Angeles Region (i.e., Basin Plan), Resolution 92-49 and section 2550.4 of California Code of Regulations, title 23. However, USEPA's CERCLA Guidance provides for an analysis that overlaps considerably with the alternatives analysis required by state requirements, with some exceptions.¹

The cleanup alternatives evaluated for the Site include excavation to remove waste in soil, bioventing to reduce waste in soil that is not removed by excavation, soil vapor extraction to remove waste in soil vapor, LANPL removal, and MNA to reduce waste in groundwater. In addition, the FS proposes to develop a supplemental groundwater remediation plan if MNA is not effective. The FS also evaluated alternatives of No Action and Site Capping. The cleanup

¹ The FS evaluates compliance with applicable and relevant and appropriate requirements (ARARs). CERCLA requires that cleanups directed by USEPA attain state and federal ARARs and defines the term ARARs to place limitations on which state requirements apply to cleanups under CERCLA. Since this Site is being cleaned up under State law, the limitations imposed by CERCLA, for example whether an ARAR is "applicable" or "relevant and appropriate", do not apply. The FS did provide a fairly complete list of state and federal requirements that are appropriate to apply to this Site. The FS also refers to the CERCLA acceptance criteria that USEPA must use in approving a remedial action under CERCLA. Again, this is a cleanup being overseen by a state agency, the Regional Board, and is not a CERCLA site. The Regional Board will determine whether to approve the remedial action under its authority.

alternatives differ primarily in the depth and extent of excavation to remove waste. Based on the alternatives analysis, the FS found a preference for an alternative that consists of excavation of the upper three feet of soil at private properties where TPH levels that exceed SSCGs for TPH in soil and replacement of the excavated soil with clean soil. The proposed alternative relies on institutional controls to limit resident contact with impacted soils greater than three feet bgs to address nuisance and health risk concerns; sub-slab vapor mitigation at identified houses to address vapor intrusion, indoor air, and human health concerns; SVE and bioventing of soils greater than three feet bgs to reduce leaching potential of wastes from soil to groundwater; removal of LNAPL from wells where the LNAPL it exceeds 0.5 feet thickness in wells, and MNA and supplemental groundwater remediation, as needed, to protect the beneficial uses of groundwater.

The FS provides an analysis of alternatives, but the FS analysis is incomplete and additional information is needed to complete the analysis required by Resolution 92-49 as follows:

Economic Feasibility

Resolution 92-49, Section III.H defines economic feasibility as “an objective balancing of the incremental benefit of attaining further reductions in the concentrations of constituents of concern as compared with the incremental cost of achieving those reductions. Economic feasibility does not refer to the discharger’s ability to finance cleanup.” The FS does not provide a complete evaluation of economic feasibility as required by Resolution 92-49. The FS provides cost estimates of alternatives; but does not discuss the incremental benefit of attaining further reductions in the concentrations of COCs compared with the incremental cost of achieving those reductions. The FS provides the costs of remedial excavation alternatives to depths of two feet, three feet, five feet, and ten feet. (See Attachment III). Regional Board staff note that Site data indicate that waste concentrations and mass increase with depth. The Regional Board expects that the incremental costs of excavation at depth is offset by the incremental benefits of reducing the concentrations of COCs. However, the FS failed to conduct an objective balancing of the incremental benefit of attaining further reductions in the concentrations of COCs as compared with the incremental cost of achieving those reductions as required by Resolution 92-49.

The UCLA Expert Panel also evaluated the proposed remedy in accordance with Resolution 92-49 and recommended that Shell evaluate excavation alternatives to greater depths to remove a larger fraction of the TPH mass than the estimated 6-8% of the total that would be removed in the alternative proposed by the RAP. (See Attachment II).

Nuisance Concerns

The FS does not provide sufficient rationale for the preferred alternative. With regard to the excavation depth, excavation to three feet would not be effective in limiting the exposure of residents to waste below three feet. The three-foot excavation depth alternative relies on institutional controls based on City of Carson Building Code Section 8105 to limit resident exposure to wastes below three feet. However, the City of Carson does not require a building permit for such activities as gardening and landscaping, and excavations to depths greater than three feet does not require heavy equipment. Site data indicate that waste is present in soils at depths of three feet and five feet bgs, so it is reasonable to assume that there is waste present at depths greater than three feet that residents could be exposed to through residential activities

such as gardening and building yard features. The Building Code does not apply to excavations that remove less than 50 cubic yards of soil and may not be effective in limiting exposure to wastes in soils below three feet.

Technological Feasibility, Implementability, and Effectiveness

The FS consideration of effectiveness and technological feasibility is also deficient regarding excavation depth. By limiting the FS evaluation of excavation depth to the protection of human health only, the FS does not consider the effectiveness of the proposed preferred alternative on abating nuisance and protecting groundwater quality. The FS consideration of feasibility only focuses on the degree of excavation being readily excavated rather than analyzing whether alternative depths are capable of being implemented, effected or accomplished. The FS ignores a Site pilot test that showed that excavating to ten feet is feasible at the Site. The FS's consideration of effectiveness and feasibility as required by Resolution 92-49 is limited and does not provide supporting rationale to concur with the proposed alternative.

The FS does not evaluate different types of excavation and bases its evaluation of the technological feasibility of excavation on the presence of utilities that are below grade, the constrained areas that may be available for excavation, and the need to implement shoring for deeper excavations. However, the Regional Board has overseen remedial excavations in the Los Angeles region where there are underground utilities and has approved deep excavations using technologies that address the issues cited in the FS. The FS fails to consider in detail alternative excavation technologies that may be feasible to justify the technological infeasibility of excavating below three feet bgs. The UCLA Expert Panel Report also suggests that Shell consider alternative technologies, such as use of augers, which would also have the benefit of reducing other impacts associated with excavation. (See Attachment II).

The FS did not fully evaluate alternatives based on excavating to ten feet bgs in the comparative analysis because this excavation depth was considered "Not Implementable" and thus eliminated from detailed analysis. The Regional Board notes that a pilot excavation was successfully completed at the Site to a depth of ten feet bgs and thereby excavation to ten feet bgs should be considered implementable, and the FS should fully analyze this excavation depth alternative.

The FS consideration of Overall Protection of Human Health and the Environment is based on long term effectiveness and permanence of the remedy. However, in evaluating overall protection of human health and the environment, the FS does not estimate the waste mass to be removed and the waste mass left on Site as it affects protection of human health and the environment. As discussed above, the waste mass quantity is a key determinant of the period that soil vapor will be generated and the period that soil vapor extraction and bioventing will be required to operate to meet the SSCGs. These technologies may generate COCs to which residents might be exposed over a long time frame. The FS indicates that more than 80 years is required to degrade the hydrocarbons below grade using bioventing. It follows that monitoring and maintenance will be required. The FS fails to note that Resolution 92-49 favors remedies that are permanent and do not require lengthy time frames of monitoring and maintenance which will be required for SVE and bioventing. It is also noted that bioventing will generate intermediate waste products that will continue to pose risks to residents of the Carousel Tract. Further, institutional controls may need to be implemented during this lengthy period.

SVE and bioventing will require off-gas treatment. The FS does not adequately discuss requirements or feasibility of obtaining a permit to operate a SVE and bioventing system at the Site. It is not clear that such permits are available in residential areas of the South Coast Air Quality Management District. If permits for SVE and bioventing are not available, the effectiveness of the proposed alternative is decreased and issues of long term effectiveness due to the lengthy time frame to reach the SSCGs are exacerbated. Additionally, the permanence of bioventing is questionable as intermediate wastes may be generated as hydrocarbons are degraded by bioventing.

Time to Achieve SSCGs

The proposed preferred alternative of excavation to three feet bgs leaves significant waste mass on the Site which must be addressed by bioventing and SVE to achieve SSCGs. This issue is discussed above in the evaluation of the RAP and it is relevant to the discussion of the FS. Achievement of SSCGs will take a significantly longer time when relying on excavation to three feet bgs than would excavation to deeper depths that will remove a greater mass of waste. The RAP alternative would not be as protective of groundwater quality as alternatives that remove greater mass of waste, since waste will continue to leach from soil to groundwater for a longer time frame. Resolution 92-49 favors cleanups that are permanent and do not require ongoing maintenance and monitoring. The FS fails to consider these factors in its evaluation of alternatives.

The FS assesses excavation to three feet to be more implementable than alternatives that involve deeper excavations because fewer properties would be excavated than excavation to depths greater than three feet bgs. The FS notes that cleanup of fewer properties would reduce the time frame of excavation. However, as noted above and by the UCLA Expert Panel, excavation to a lesser depth will prolong the overall length of time to achieve SSCGs. This rationale confuses a less difficult and less extensive cleanup with greater implementability.

The FS considers SVE/bioventing as an effective technology for removing and reducing the concentrations of waste that are left after excavation. However, the Bioventing Pilot Test Report determined that time frames of up to 80 years may be required to reduce hydrocarbon concentrations to the SSCGs necessary to protect groundwater at the Site. Resolution 92-49 directs the Regional Board to concur with remedies which the discharger demonstrates, and the Regional Board concurs with, to have a substantial likelihood to achieve compliance within a reasonable time frame. Achieving the SSCGs in a time frame of up to 80 years is not a reasonable time frame because remedial actions would be required to continue in a residential neighborhood for decades, the exposure and nuisance potentials would persist for decades, and waste could continue to leach to groundwater for decades. Resolution 92-49 directs the Regional Board to consider cleanup proposals that implement permanent cleanup and abatement solutions that do not require ongoing maintenance, wherever feasible. The FS does not sufficiently consider alternatives that achieve a permanent remedy that avoids long-term monitoring and maintenance.

The FS consideration of Overall Protection of Human Health and the Environment is based on long term effectiveness and permanence of the remedy. However, the FS does not estimate the

waste mass to be removed and the waste mass left on-site as it affects protection of human health and the environment. As discussed above, the waste mass is a key determinant of the period that soil vapor will be generated and the period that soil vapor extraction and bioventing will be required to operate to meet the SSCGs. These technologies may generate COCs to which residents might be exposed over a long time frame. Consequently, sub-slab mitigation and SVE may need to be operated for a long time frame that is not reasonable. The FS fails to note that Resolution 92-49 favors remedies that are permanent and do not require lengthy time frames of monitoring and maintenance which will be required for SVE and bioventing.

In order for the Regional Board to concur with cleanups that attain water quality that is less than background, the alternative cleanup levels must "Be consistent with maximum benefit to the people of the state; not unreasonably affect present and anticipated beneficial use of such water, and not result in water quality less than that prescribed in the Water Quality Control Plans and Policies adopted by the State and the Regional Water Boards." The FS fails to correctly evaluate consistency with Resolution 92-49 with respect to the effect on groundwater. The FS states that there is no current or future use of the Shallow Zone and Gage aquifer at or near the Site. However, the shallow zone overlays the Gage aquifer in the general area of the Site and the groundwater beneath the Site, which is designated in the Basin Plan with the beneficial use of Municipal and Supply (MUN). As such, impacts on the designated beneficial uses must be addressed in the remedy.

CONCLUSION AND DIRECTIVE

Based on the comments above, the Regional Board cannot concur with the proposed RAP. State Water Board Resolution 92-49 directs the Regional Board to concur with remedies which the discharger demonstrates and the Regional Board finds to have a substantial likelihood to achieve compliance, within a reasonable time frame. For the reasons stated above, the Regional Board does not concur with the RAP and FS as currently proposed.

Shell shall submit a revised RAP that:

1. Utilizes approved SSCGs set forth in the Regional Board's letter of January 23, 2014, including attenuation factors for soil vapor;
2. Provides estimates of mass proposed to be left in place and bases for estimating the time and cost to reduce the concentrations of constituents of concerns;
3. Provides plans for continued monitoring of the Site, including indoor air quality as appropriate if waste is proposed to be left in place;
4. Provides a concept rendering of how the cleanup infrastructure will be placed at a typical individual residence;
5. Provides a contingent location for SVE/bioventing treatment facility should an on-site location not be available;
6. Revises the calculation of the sub-slab to indoor air attenuation factor and re-identifies properties exceeding the lower bound of risk range of 1×10^{-6} or a hazard index of 1, based on the more protective SSCG for soil vapor and sub-slab soil vapor for consideration of sub-slab mitigation; and

7. Includes an appropriate confirmation sampling plan, with a schedule, of soil, soil vapor, and groundwater to verify the performance of the proposed activities (i.e., Soil Vapor Extraction, Bioventing and Excavation) to document achievement of the Regional Board approved SSCGs for all COCs.

Shell shall submit a revised FS that:

1. Provides a detailed review of remedial excavation methods that are effective in restricted (i.e. small) areas and can reach depths of ten feet bgs;
2. Evaluates alternative active groundwater treatment technologies for site-related COCs should the combination of SVE, bioventing, and MNA prove not to be effective;
3. Identifies institutional controls that are effective in protecting residents from gardening or small project excavations that may encounter waste left in place;
4. Evaluates incremental costs in relation to incremental reduction in waste concentrations in accordance with Resolution 92-49;
5. Provides details on post cleanup monitoring for alternatives that leave waste in place; and
6. Provides off site locations for SVE/bioventing treatment areas.

The Regional Board concurs with the comments provided by OEHHA and the UCLA Expert attached to this letter. Revisions to the RAP, FS, and HHRA shall address the OEHHA and UCLA Expert Panel comments.

The Revised RAP, FS and HHRA Report are due to the Regional Board by 5:00 pm on **June 16, 2014**.

Pursuant to section 13350 of the California Water Code, failure to comply with the requirements of Order No. R4-2011-0046 by the specified due date may result in civil liability administratively imposed by the Regional Board in an amount up to five thousand dollars (\$5,000.00) for each day of failure to comply.

The State Water Board adopted regulations requiring the electronic submittals of information over the Internet using the State Water Board GeoTracker database. You are required not only to submit hard copy reports required in this Order but also to comply by uploading all reports and correspondence prepared to date and additional required data formats to the GeoTracker system. Information about GeoTracker submittals, including links to text of the governing regulations, can be found on the Internet at the following link:


http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal

Please note that, the Regional Board requires you to include a perjury statement in all reports submitted under the CAO. The perjury statement shall be signed by a senior authorized Shell representative (and not by a consultant). The statement shall be in the following format:

“ I, [NAME], do hereby declare, under penalty of perjury under the laws of State of California, that I am [JOB TITLE] for Shell Oil Company that I am authorized to attest to the veracity of the information contained in [NAME AND DATE OF REPORT] is true and correct, and that this declaration was executed at [PLACE], [STATE], on DATE.”

If you have any questions, please contact the project manager, Dr. Teklewold Ayalew at (213) 576-6739 (tayalew@waterboards.ca.gov) or Ms. Thizar Tintut-Williams, Site Cleanup Unit III Chief, at (213) 576-6723 (twilliams@waterboards.ca.gov).

Sincerely,


Samuel Unger, PE
Executive Officer

Attachments: I. OEHHA Memorandum dated April 29, 2014
II. UCLA Expert Panel Comments dated April 29, 2014
III. Regional Board Memorandum dated March 20, 2014

cc Janice Hahn, Honorable Congresswoman, US House of Representatives,
California's 44th District
Isadore Hall, III, Assembly member, 64th Assembly District
Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles
Jim Dear, Mayor of Carson
Michael Lauffer, Office of Chief Counsel, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control
Board
James Carlisle, Office of Environmental Health Hazard Assessment
Robert Romero, Department of Toxic Substances Control
Alfonso Medina, Los Angeles County Department of Health
Angelo Bellomo, Los Angeles County Department of Health
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Matthew Rodriguez
Secretary for
Environmental Protection



Edmund G. Brown Jr.
Governor

MEMORANDUM

TO: Teklewold Ayalew, Ph.D., P.G.
Engineering Geologist
Regional Water Quality Control Board
320 West 4th Street, Suite 200
Los Angeles, CA 90013

FROM: James C. Carlisle, D.V.M., M.Sc., *J.C.*
Staff Toxicologist
Air, Community, and Environmental Research Branch

DATE: April 29, 2014

SUBJECT: HUMAN HEALTH RISK ASSESSMENT REPORT, FORMER KAST
PROPERTY, CARSON, CALIFORNIA
SWRCB#R4-09-17 OEHHA #880212-01

Document reviewed

- Human Health Risk Assessment Report, Former Kast Property, Carson, California, dated March 10, 2014 by Geosyntec Consultants, Inc.

Scope of review

- OEHHA's review is limited to risk assessment issues. Specifically excluded are evaluation of:
 - explosion hazards
 - leaching potential and groundwater protection
 - relationship of chemicals of concern to previous site activities.

Exclusion of analytes as chemicals of potential concern (COPCs)

1. The process of eliminating detected chemicals as COPCs should be clearly laid out. A flow chart would be helpful in this regard (see also 4 below).
2. Apparently there are three bases for eliminating detected chemicals as COPCs: a. frequency of detection; b. toxicity screen; and c. comparison with background. Table 4 should include all three criteria and would become much clearer if the reason for exclusion were provided rather than the reason for inclusion.
3. Comparison with background: Page 13 & Table 4 of the main report state that "The results of the one-sample proportion test indicated that cadmium, cobalt, copper, vanadium, and zinc concentrations at the Site are within background". This conclusion seems to contradict the last column of Appendix A Table 5-2 where, in some cases, the answer in is "yes".

California Environmental Protection Agency

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption.

- a. It appears that if an element passes any one of 4 or 5 screens, it is eliminated. OEHHA believes that the results of the various analyses should be taken together using a weight-of-evidence approach, rather than a 'pass-one-test-and-you're-out' approach
 - b. Although the use of the one-sample proportion test was approved in a November 21, 2013 OEHHA memorandum, OEHHA is concerned that the test may have been misapplied to the UTL. Using a one-sample proportion test to compare site data to a UTL may bias the analysis in favor of accepting the null hypothesis. It controls the type I error rate at 2 levels (the UTL itself is a UCL on the 95th percentile and then the P value for exceedance of the UTL must be <0.05 to reject the null hypothesis), but does not the type II error rate at all . . DTSC (1997) guidance on the subject includes the following: "Metals eliminated as COPC are never again considered in the process of risk assessment or risk management. Thus, it is highly desirable to avoid or minimize Type II error in selection of COPC. On the other hand , if a Type I error is made, two subsequent levels of decision-making provide opportunities for correction..... Thus, acceptable Type II error should always be less than or equal to Type I error." APPENDIX 6 of Appendix A - "*ProUCL Output of One Sample Proportion Test Results*" contains no ProUCL output, only a summary thereof. Therefore, OEHHA cannot verify the One Sample Proportion Test Results.
 - c. Arsenic has been eliminated as a COPC at sites where the maximum arsenic concentration is more than twice the BTV and/or exceedances comprise up to 30% of the samples. The probability plot has an apparent deviation from linearity. Since the residential SSCG is 12 mg/kg (Table 11), how can concentrations over 28 mg/kg be left in place?
For thallium and antimony, the exceedances are even greater in both magnitude and frequency. This does not appear to be consistent with DTSC (1997, 2005, 2009)
 - d. However, the concern regarding exclusion of elements as chemicals of potential concern is mitigated by the fact that the excluded elements are not believed to be site-related.
4. Toxicity screen: Geosyntec compared the maximum concentration of each detected analyte in a given medium to one-tenth of its RBSL. If the maximum concentration was not greater than one-tenth of the RBSL it was eliminated as a COC for the Site. OEHHA is not aware of a prior approval of this screening procedure. This screening procedure could potentially underestimate risk and/or hazard if several chemicals were present at less than, but close to, their respective RBSLs.

Transfer factors

- OEHHA agrees with the transfer factors.

Exposure assessment

- Soil exposure assumptions are similar to those in the SSCG document except that exposure to soils up to 5 feet deep is considered on a 350 days/year basis.
- Equation 3.5.3.3 seems to have omitted a term for sub-slab concentration.
- Vapor intrusion is estimated based on a site-wide attenuation factor of 0.002.

Site-Specific Clean-up Goals (SSCGs)

- SSCGs were verified by comparison to previously approved SSCGs and/or by forward risk and hazard calculations using the SSCG as the input concentration.

Conclusions

- Geosyntec has employed additional screens to the determination of COPCs.
 - The concentration/toxicity screen could potentially underestimate combined risk and/or hazard.
 - OEHHA initially had some concerns regarding the screening process based on background comparisons, but it appears that this only affects elements that are not site-related.
- OEHHA verified the SSCGs by independent forward risk and hazard calculations and by comparison to previously approved SSCGs.

Peer reviewed by



Hristo Hristov, MD, PhD

References

DTSC, 1997, Selecting Inorganic Constituents As Chemicals Of Potential Concern At Risk Assessments At Hazardous Waste Sites And Permitted Facilities Final Policy Prepared By: Human And Ecological Risk Division Department Of Toxic Substances Control California Environmental Protection Agency February 1997

DTSC, 2005, Final Report Background Metals at Los Angeles Unified School Sites – ARSENIC California Department of Toxic Substances Control California Environmental Protection Agency June 6, 2005

DTSC, 2009, Arsenic Strategies Determination of Arsenic Remediation Development of Arsenic Cleanup Goals January 16, 2009

TO: Los Angeles Regional Water Quality Control Board

FROM: UCLA Expert Panel: J.R. DeShazo, Arturo Keller, and Gary Krieger

PROJECT: Former Kast Property in Carson, California

SUBJECT: Review of the HHRA, FS, and RAP

DATE: April 29, 2014

1. Introduction

As requested by the Los Angeles Regional Water Quality Control Board (Regional Board), the Expert Panel provides comments based on the Panel's review of the: (1) Human Health Risk Assessment, (2) Feasibility Study, and (3) Remedial Action Plan. These documents were prepared for the former Kast Property in Carson, California by Geosyntec Consultants (for the Feasibility Study, by URS Corporation as well) for Shell Oil Products US. This memo builds upon the Panel's previous comments on the: (1) Site-specific Cleanup Goal Report (SSCG Report) and Human Health Screening Risking Evaluation that the Panel submitted to the Regional Board on July 24, 2013 and (2) the Revised Site-Specific Cleanup Goal Report that the Panel submitted to the Regional Board on December 18, 2014.

The Panel's overall charge is to provide its recommendations for the Regional Board to consider in determining whether cleanup goals and remedial actions proposed by the responsible parties named in the Cleanup Order are consistent with applicable legal authorities.

After this introduction, the memo is divided into three main sections. The first section reviews the three germane documents to assess the human health risk analysis contained in them. The next section focuses on the Feasibility Study and specifically the technical feasibility of the remedial actions alternatives evaluated. The final section addresses issues of adherence to the germane regulations, specifically State Water Resources Control Board Resolution 92-49.

2. Health Risk Analysis

The Human Health Risk Assessment (HHRA), Feasibility Study (FS), and Remedial Action Plan (RAP) for the Former Kast Property were reviewed by Gary Krieger of New Fields to assess the human health risk analysis. This review was conducted subsequent to his review of the Site-Specific Cleanup Goal (SSCG) Report and the Human Health Screening Risk Evaluations (HHSRE) conducted for the Site. The HHRA was conducted consistent with the SSCG and HHSRE but does have minor differences as identified in the Geosyntec letter to the Regional Board dated March 20, 2014.

The FS and RAP lists the remedial action objectives (RAOs) for the site:

- "Prevent human exposures to concentrations of COCs in soil, soil vapor, and indoor air such that total (i.e., cumulative) lifetime incremental carcinogenic risks are within the NCP risk range of 1×10^{-6} to 1×10^{-4} and noncancer hazard indices are less than 1 or concentrations are below background, whichever is higher. Potential human exposures include onsite residents and construction and utility maintenance workers. For onsite residents, the lower end of the NCP risk range (i.e., 1×10^{-6}) and a noncancer hazard index less than 1 have been used.
- Prevent fire/explosion risks in indoor air and/or enclosed spaces (e.g., utility vaults) due to the accumulation of methane generated from the anaerobic biodegradation of petroleum hydrocarbons in soils. Eliminate methane in the subsurface to the extent technologically and economically feasible.
- Remove or treat LNAPL to the extent technologically and economically feasible, and where a significant reduction in current and future risk to groundwater will result.
- Reduce COCs in groundwater to the extent technologically and economically feasible to achieve, at a minimum, the water quality objectives in the Basin Plan to protect the designated beneficial uses, including municipal supply."

The following section focuses on how the documents (HHRA, FS, and RAP) address the first aforementioned RAO.

2.1. Human Health Risk Assessment

The first RAO states "Prevent human exposures to concentrations of COCs in soil, soil vapor, and indoor air such that **total** [emphasis added] (i.e., cumulative) lifetime incremental carcinogenic risks are within the NCP risk range of 1×10^{-6} to 1×10^{-4} and noncancer hazard indices are less than 1 or concentrations are below background, whichever is higher. ..." This word "total" or "cumulative" was discussed during the

review of the SSCG Report and every comment was responded to by Shell and Geosyntec that the HHRA would address the cumulative aspect of the risk assessment. The HHRA does address the cumulative nature of multiple constituents of Concern (COCs) within each medium (e.g., soil, soil vapor, etc), but does not address the cumulative or additive effect of the receptor of concern (e.g., residents) exposure to multiple media.

Geosyntec states that the assessment of indoor air using sub-slab vapor is highly conservative, and therefore they may believe that adding this additional incremental risk is over-protective. However, standard risk assessment guidance (USEPA 1989) states, "The total exposure to various chemicals will equal the sum of the exposures by all pathways." While USEPA (1989) then cautions the reader to not "automatically sum risk from all exposure pathways evaluated for a site", it does state, "two or more pathways should be combined for a single exposed individual or group of individuals." Given the HHRA evaluated the site data on a property basis, one would expect the receptor exposed to the property soil would be the same receptor exposed to indoor air. USEPA (1989)¹ does recognize that the same individuals may not consistently face the "reasonable maximum exposure" for more than one pathway, and the HHRA does allude to this issue in the uncertainty section when it states that "HHRA assumptions entail the receptor staying outdoor[s] or indoors the entire duration of the exposure period. As a result, the estimated incremental cancer risks and noncancer hazards are over-estimated." But note the pathways risks were not combined in the HHRA.

Table 6-1 in the RAP identifies by property whether the soil excavation (exceedance of the risk criteria for soils ≤ 5 ft), sub-slab soil vapor mitigation (exceedance of the risk criteria for sub-slab vapor SSCG), or SVE/bioventing (exceedance of the risk or leaching criteria for soils ≤ 10 ft) will be conducted. Upon examination of this table, six properties will require sub-slab soil vapor mitigation with no surface soil (<3ft) excavation, three of these six properties will receive no on-property soil remediation (3 properties will have SVE/bioventing).

While the risk assessment process is over-protective in many ways, until the cumulative effects of all pathways are evaluated, there may be properties un-identified that would not be meeting this objective.

¹ USEPA 1989, *Risk Assessment Guidance for Superfund. Volume I, Human Health Evaluation Manual (Part A). Interim Final.* EPA/540/1-89/002. U.S. EPA, Office of Emergency and Remedial Response.

Recommendation: Assess cumulative impacts across mediums in the HHRA.

2.2. Feasibility Study and Remedial Action Plan with regard to Human Health Risk

The FS and RAP use the HHRA exceedance of risk/hazard in soils to identify properties for soil excavation and exceedance of risk/hazard in indoor air via soil slab vapor evaluation to identify properties for sub-slab vapor intrusion mitigation. As these two pathways are assessed in the HHRA separately, it is possible that there are some properties that may still pose an unacceptable risk based on the cumulative effects.

Recommendation: Ensure all possible “hot spots” requiring more extensive remediation have been identified, by assessing cumulative impacts across mediums.

2.3. Risk Management

The RAP (or FS) does not clearly state that all existing trees and bushes would be removed during excavations. Most homeowners are more attached to their trees than their hardscapes. The homeowner may choose to refuse the remediation if their mature and/or fruit-bearing tree, for example, has to be removed.

Recommendation: If trees can be left in place, institutional controls and surface soil capping should be considered to reduce or mitigate exposure. This will be further discussed in Section 4.

2.4. Miscellaneous Minor Edits for the HHRA

Regional Board's comment that their Tables 1-3 were the COCs for the Site: With respect to Table 9-2, the Regional Board considers the list of COCs complete with the addition of xylenes and toluene. (Page 5 of the 1/24/14 letter) and then attaches Table 1 as a revision of Table 9-2 of the SSCG Report. However the HHRA excludes additional COCs based on "additional background analysis (one-sample proportion test) [which] indicated this metal to be within background for all properties [footnote to cadmium, cobalt, copper, vanadium, zinc]." (page 2 of Table 6). It is unclear to the reviewer if the Regional Board, who considered the COC list complete with Table 1, will accept this reduction of the list.

Table 4 – footnote on toluene and xylenes #5 is incorrect as Footnote #5 discusses the additional background analysis to exclude COCs based on the one-sample proportion test.

Table 5 does not indicate toluene and xylenes are COCs for Soil Vapor, Sub-Slab (though they are marked as such in Table 6). While these analytes would not be selected as COCs using the methodology presented in the table, we recommend that Tables 4 and 5 present the COC screening process consistently. We would recommend that Table 4 be changed to be consistent with the process described and Table 6 be used to return the analytes to COC list. Using this method of displaying the screening process, the reader would then follow the reasoning of why the analytes are included in the Soil and Soil-Vapor, Sub-Slab categories due to the regulatory request when they actually pass the COC screening process.

Table 6 – Note the footnote on the toluene and xylenes analytes under the Soil Vapor, Non-Sub-Slab category is incorrect. These analytes are included on the COC list under this category because they **did** meet the criteria of the COC selection screening process.

Table 6 should acknowledge the soil vapor screening criteria the Regional Board gave for aliphatic ranges and the nuisance concentration.

Table 8 should include a definition of Soil vapor to indoor air volatilization factor (VF_{SV-IA}) for consistency.

Examining the tables, the reviewer is concerned with the handling of the xylenes. In some cases the xylenes are presented in total (Table 9a), in analytical isomers (Table 5), or in both forms (Table 4 and 6).

Table 9a missing VFs on the table for the COCs of 1,2-Dichloroethane, cis-1,2-Dichloroethene, and tert-Butyl Alcohol. Reviewer assumes that the total xylene VF_{soil} will be used for the xylene isomers if the EPCs are based on the isomers.

Table 9b does not need VF_{SV-OA} for 1,2-dichloropropane or for 1,3 butadiene.

3. Remedial Alternatives and Feasibility Study Analysis

Geosyntec has adequately considered a number of alternatives for addressing the contamination at the site. The Feasibility Study identified a reduced set of alternatives that are likely to meet regulatory requirements, as well as practical matters such as ease of implementation, effectiveness and cost. In addition, the most promising alternatives were evaluated with regards to: (1) overall protection of human health and the environment; (2) compliance with applicable or relevant and appropriate requirements; (3) long-term effectiveness and permanence; (4) reduction of toxicity, mobility and volume through treatment; (5) short-term effectiveness to protect human health and the environment; (6) implementability; (7) estimated cost; (8) state acceptance; (9) community acceptance; (10) consistency with Resolution 92-49; (11) social considerations; and (12) sustainability.

This narrowed down the range of alternatives to a small subset that involves excavation to different depths (2, 3, 5 and 10 feet below ground surface), combined with removal of reservoir slabs if encountered in the excavation, sub-slab vapor intrusion mitigation, soil vapor extraction (SVE), bioventing, monitored natural attenuation of contaminants in groundwater, LNAPL removal and some institutional controls to minimize exposure. The set of alternatives under #4 all involve excavation below hardscape and landscape, whereas alternative set #5 considers only landscape.

Contamination appears to be pooled in certain areas that reflect the original reservoirs. The use of auger technology to get to contamination at 10 bgs in certain "hot spots" may require considerable less disruption of the surface, less soil removed and less truckloads hauled from the site. It is important to consider that a large number of truckloads will have to be removed, which will disrupt daily life in the area, and increase exposure to air pollutants from the exposed soils as well as from truck emissions. Potential impacts are further discussed in Section 4. As indicated by Geosyntec, Alternatives 4D and 5D would provide a greater degree of reduction in impacted soil through excavation, resulting in higher short and long-term effectiveness, and more permanence, and higher reduction of toxicity, mobility and volume.

4. Legal and Policy Analysis

Through the Porter-Cologne Water Quality Control Act, the legislature gave the Board “the primary responsibility for the coordination and control of water quality.” When someone discharges into the soil materials that can adversely impact water quality, water code Resolution 92-49 states that the Board shall:

Ensure that dischargers are required to clean up and abate the effects of discharges in a manner that promotes attainment of either background water quality, or the best water quality which is reasonable if background levels of water quality cannot be restored, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible.

This means that while the Board should also seek to restore the background water quality observed before the discharge, it has the discretion to select another water quality level objective based on several factors. The water code goes on to clarify and define some of these factors.

The Regional Water Board shall determine whether water quality objectives can reasonably be achieved within a reasonable period by considering what is technologically and economically feasible and shall take into account environmental characteristics of the hydrogeologic unit under consideration and the degree of impact of any remaining pollutants pursuant to Section III.H.3.

The code defines how to assess or evaluate technological and economic feasibility of the water quality objective as follows.

Technological feasibility is determined by assessing available technologies, which have been shown to be effective under similar hydrogeologic conditions in reducing the concentration of the constituents of concern.

The evaluation of economic feasibility will include consideration of current, planned, or future land use, social, and economic impacts to the surrounding community including property owners other than the discharger.

The code provides the additional clarification on economic feasibility which will become relevant to our discussion:

Economic feasibility, in this Policy, does not refer to the discharger's ability to finance cleanup. Availability of financial resources should be considered in the establishment of reasonable compliance schedules;

These objectives and decision criteria will guide our discussion of the remediation alternatives.

4.1 Social and Economic Impacts of Remediation Alternatives

One of the larger challenges in interpreting 92-49 is identifying the “total values involved,” specifically the tangible and intangible social and economic impacts of meeting alternative water quality objectives and their associated remediation alternatives. In this section, we identify both the benefits and the costs of the various categories of remediation alternatives. We will not consider the specific estimates of the magnitude of these costs and benefits. However, we will discuss qualitatively their relative magnitude in some cases and also factors that create uncertainty around these costs and benefits.

4.1.1 Groundwater Quality Benefits

The Statute and the water code clearly identify improvements in water quality as a critical benefit that the Board should consider. The water quality that is under threat is groundwater, which is subject to future leaching of materials from subsurface soils and materials. The ability of remediation activities to benefit current and future groundwater quality will depend on removing or remediating the TPH mass which has the greatest potential to adversely impact water quality.

The recommended options, 4B or 5B, may remove less than 10% of the TPH mass, leaving >90% of the mass in the ground. This estimate is based on the analysis by the LA RWCB of the total TPH mass present at different depths (Memorandum of March 20, 2014, on TPH Mass Calculation for Subsoil at Kast Property), indicating that the mass is approximately 295,000 lb at 0-2 ft bgs, 650,000 lb at 2-3 ft bgs, 1,740,000 lb at 3-5 ft bgs, and 6,470,000 lb at 5-10 ft bgs.

Table 1 describes how this mass is distributed as a percentage of the total at different depths bgs.

Table 1: Distribution of the TPH Mass below ground surface*

Depth	Cumulative TPH Total Mass (lbs)	Incremental Percentage**	Cumulative Percentage**
0-2 bgs	295,000	0.03	0.03
2-3 bgs	945,000	0.07	0.10
3-5 bgs	2,685,000	0.19	0.29
5-10 bgs	9,155,000	0.71	1.00

* Based on the analysis by the LA RWCB (Memorandum of March 20, 2014, on TPH Mass Calculation for Subsoil at Kast Property).

** Actual amount of mass that would be removed under remediation alternatives is less than these amounts because a) excavation would not take place beneath buildings, streets, sensitive utility infrastructure and b) shoring and setbacks may further reduce amount of material/mass that would be removed.

Two related aspects of the preferred remediation options, 4B and 5B, are important to note because of their ability to deliver water quality benefits. As noted in Table 1, while approximately 10% of the cumulative mass is located at 0-3 bgs, the amount that would be excavated in options 4B or 5B is likely to be considerably less because the material that underlies the homes or the public streets will not be removed under these alternatives. Second, the material that would be removed is from the top of the mass, being the furthest from the groundwater resource. Taken together, this suggests that excavation alternatives 4B and 5B are likely to have relatively small impacts on long-term water quality objectives.

If an excavation alternative is being seriously considered by the Board, we recommend requesting that Geosyntec evaluate an additional remediation alternative.

Recommendation: Geosyntec should evaluate an excavation alternative at fewer locations than the proposed 183 homes and at greater depths to potentially remove a larger fraction of the TPH in targeted areas.

It would make most sense to take this approach in areas heavily impacted by COCs as shown in Figure 1. The pilot study conducted by Shell demonstrated that excavation to 10 ft is feasible. Any additional excavation alternative that is developed that removes more than 10% of the mass with considerably less land surface disruption would advance water quality goals over the current alternative while imposing considerably less cost on homeowners.

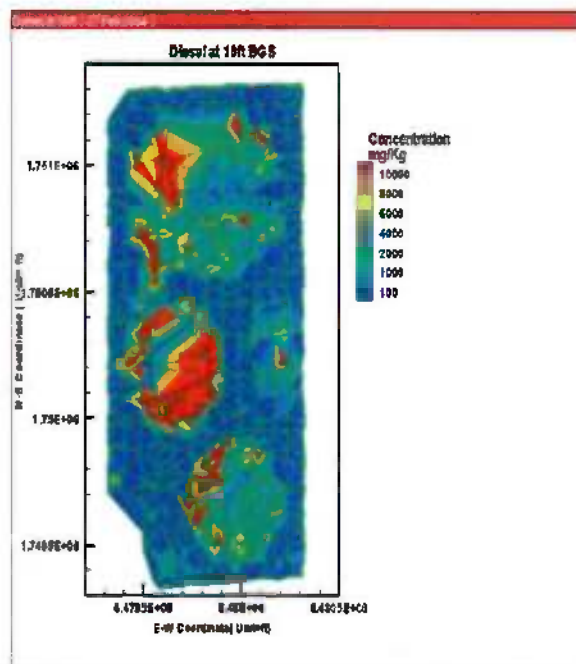
As we discuss below, 4B and 5B represents an expansive excavation effort that may affect upwards of 183 homes, which will very likely impose significant, short-term economic costs on residents, while having nominal impacts on long-term water quality levels. As such, when evaluating this alternative excavation effort, Geosyntec should consider the use of augers to reach some of the contamination at 10 ft bgs, which appears to be pooled in certain areas that reflect the original reservoirs. This technology may require considerably less disruption of the surface, less soil removed and thus less truckloads hauled from the site.

Recommendation: Geosyntec should consider the use of augers to reach contamination at 10 ft bgs.

It is important to consider that a large number of truckloads will have to be removed, which will disrupt daily life in the area, and increase exposure to air pollutants from the exposed soils as well as from truck emissions. The use of augers to reach greater depths might provide a greater degree of reduction in impacted soil through excavation, resulting in higher short and long-term effectiveness, and higher reduction of toxicity, mobility and volume.

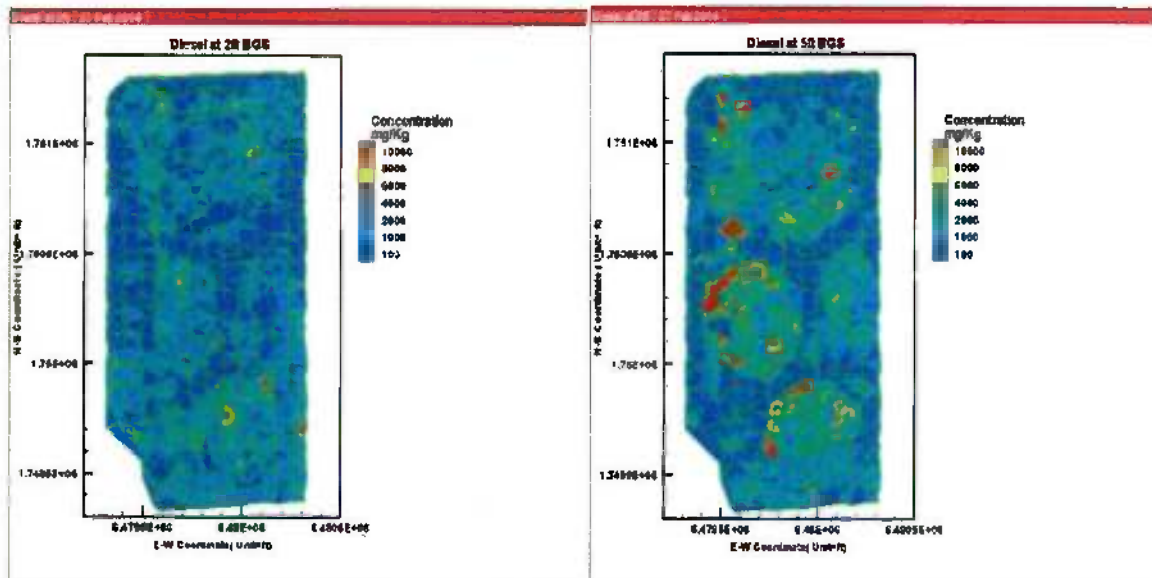
Figure 1 illustrates in red the “hot spots” areas with greater concentrations that might warrant such an approach.

Figure 1: TPH as diesel at 10 ft bgs



Based on the information in Figure 2, if the major hotspots at 10 ft bgs are removed via excavation, the residuals in the other areas are a significantly lower concern, with excavation to 5 ft bgs probably only needed in a few areas, to minimize risk and based on the economic consideration that follows from Resolution 92-49.

Figure 2: TPH as diesel at 2 and 5 ft bgs



Whether excavation is warranted depends upon whether the Board believes significant leaching from the TPH mass is likely to continue to occur. This mass may be strongly held by the soils, but we currently have only indirect evidence to support this belief. Such a determination is important since over 60% of the TPH mass is located at 5-10 ft bgs, which would require the more aggressive excavation alternatives to mitigate, and even then would be able to remove only a fraction of this mass due to the needed setbacks from buildings, roads and utilities. (As we discuss below, the excavation options will also impose significant short-term cost on residents.)

It is uncertain at this point if leaching flow from this TPH mass could be collected and evaluated by remediating groundwater. If this were possible, the magnitude and trends in flow could be evaluated by the Board over time allowing a further assessment of: (1) the basic threat this mass represents to groundwater quality and (2) the need for groundwater remediation as an on-going remedial option. The acceptability of this approach would seem to depend, in part, on whether the Board agrees as Geosyntec asserts there is "... no current or future use of the Shallow Zone and gage aquifer at or near the Site." (p. 12, Feasibility Study, 2014)

4.2 Human Health Exposure Reduction Benefits

We briefly review the impacts of the remediation alternatives as they relate to: (1) indoor air quality compliances, (2) future utility work exposure and (3) the effectiveness of a “clean soil buffer.”

4.2.1 Indoor Air Quality

Based on the extensive on-site testing, no properties exhibited health exceedances for indoor air pollutants. We assume that the 27 properties with sub-slab soil vapor exceedances will be addressed and remediated regardless of the broader remediation alternative selected for the tract. As a result neither of the more preferred remediation options, 4B or 5B, will significantly contribute to compliance with air quality regulations within residences. Indeed, this is true of the other considered remediation alternatives as well.

4.2.2 Utility Workers

Other important health exposures reductions could arise from utility workers excavating in the 0-3 ft bgs area. Utility-specific institutional controls might mitigate some or all of these exposures. (Recall that this 0-3 ft bgs is the least contaminated zone of the three zones evaluated. See Figure 2 above.) In the absence of institutional controls, these exposures would remain a concern for all remediation alternatives except for alternatives 2 and 3. This is because all options under alternatives 4 and 5 requires setbacks for homes, streets and utilities. As result, they would leave impacted soils directly under and proximate to the foundation of the homes, streets and utilities infrastructure. All subsurface utilities repairs or replacement will likely disturb these areas unexcavated under and proximate to these homes, streets and utility infrastructure. As a result any potential risks to utility workers would not be significantly abated by alternatives 4B and 5B.

4.2.3 Clean Soil as “Protective Barrier” in Alternative 4 and 5?

Although the proposed excavation alternatives represented by 4 and 5 may provide a perceived “protective barrier” to residents, this is may only be true for the portions of the lot landscaped (5) or hardscaped and landscaped (4), under which impacted soils would be excavated. However, for alternatives 4 and 5, unexcavated soils will remain under buildings, streets, and utility infrastructure and, due to setbacks at greater excavation depths, also potentially adjacent to these structures. As a result, we

suggest that the benefits of these alternatives in offering a protective buffer to individuals within their homes are more limited than may be initially perceived.

4.3 Residential Interim Use Value and Nuisance Losses

The preferred option in the Remedial Action Plan, 4b, will involve the excavation of soils down to 3 ft bgs under all landscaping for potentially up to 183 homes. Although this is the least intrusive of the excavation depth alternatives considered, it is still likely to impose significant, and on occasions, acute costs to some residents over the period of remediation. The deeper excavation alternative, which would take longer, requires more structural safeguards, and require more on-site activity, would impose even larger social costs of the sort discussed later in this section. While the duration of this period of remediation is uncertain, and depends on the coordination of numerous stakeholders, it is likely to take several years to fully complete for the entire neighborhood.

Over this period, some residents may experience the interim lost use value from their residences and experience welfare losses associated with nuisance of on-site and neighborhood excavation and soil removal and replacement. These economic factors need to be taken into consideration when evaluating Resolution 92-49. These impacts could include the following:

Air pollution exposures. Excavation and soil transportation will likely lead to a substantial increase in interim risk of air pollution exposure to residents, since the contaminated soils will be exposed during excavation and heavy equipment and trucks will be operated during the removal and replacement of soils.

In particular, particulate matter levels could increase during excavation. Particle pollution contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems, including increased respiratory symptoms such as irritation of the airways, coughing or difficulty breathing. People with heart or lung diseases, children and older adults are most likely to be affected by particle pollution exposure. However, even if you are healthy, one may experience temporary symptoms from exposure to elevated levels of particle pollution. There could be economic costs associated with health impacts, including the cost of medical care and medication.

Noise and odor nuisances. Similarly, excavation and soil removal will likely lead to a substantial level of noise impacts associated with truck trips and the operation of heavy equipment. Odor associated with diesel pollution from the trucks, soil disturbances and

other processes could also be expected during an interim period. There could be economic costs associated with mental health impacts from noise and odor nuisances.

Loss of trees/shrubs, interim loss of landscaping and other aesthetic impacts.

Preferred option 4b would involve excavation below landscape and thus would require the permanent loss of favored existing tree or scrubs. After the excavation period, new trees or other plants would have to be planted and landscaping would have to be redone by the property owners. During the exaction period, there would be an interim loss of recreational space for children and pets. There would also be an interim loss of access to other yard amenities such as pools, sheds, gardens, etc. This could affect property value.

Impacted ability of residents to their sell properties. While it would be speculative to predict an exact impact on property values, excavation activities are likely to depress home values during the period of excavation, given the disturbance.

Intangible costs associated with temporary household displacement. Interim relocation costs are likely to be highest for households with children and the elderly. Relocation could affect children's ability to attend their regular school and participate in their normal extracurricular activities. Relocation could also affect access to residents' places of employment, childcare, medical care, etc.

Possible short-term loss of utility services. Excavation below hardscapes and landscaped areas will be complicated by utility lines. Some lines may even have to be removed or temporarily unserviceable.

4.3.1 Benefits to Long-Run Real Estate Values

The relative real estate impacts to home owners are unknown for those remediation alternatives that might significantly alter the property such as alternative 2, 3 and 6.

For the remediation alternatives 4 and 5, despite the short-term interim use losses that are possible, we would expect the long-term value of the real estate to return to pre-investigation levels assuming the following:

- 1) All sub-slab soil vapor concerns are resolved and in full compliance with guidelines.
- 2) Indoor air quality remains in compliance with accepted exposure guidelines for the subsurface pollutants and their derivatives.

- 3) Ground surface environmental health conditions related to subsurface conditions are non-compliant with current regulations which affect the properties residential use value.
- 4) Documented or anticipated environmental liabilities associated with subsurface conditions are mitigated.
- 5) Threats of future potential losses of interim use value are eliminated.
- 6) Local nuisance impacts (e.g., air pollution, dust, noise, odor, loss of utility services, road congestion, etc) from nearby land uses and remediation activities have ceased.

Los Angeles Regional Water Quality Control Board

TO: Samuel Unger, Executive Officer

FROM: C.P. Lai *C.P.*
Ph.D., P.E., Water Resources Control Engineer
LOS ANGELES REGIONAL WATER QUALITY CONTROL BOARD

DATE: March 20, 2014

SUBJECT: TPH MASS CALCULATION FOR SUBSOIL AT KAST PROPERTY

As requested by Executive Officer Samuel Unger, I have calculated an estimate of the mass of total petroleum hydrocarbons (TPH) in the subsoil at the Former Shell Tank Farm at the Kast Property (Site).

The total TPH mass was obtained at three depths below ground surface by using the areas of the triangles formed by adjacent sampled stations and the concentrations collected at the sampled stations and depths. The areas of triangles are obtained by using the finite element method. The analysis is based on the following assumptions:

1. Density of sub-soil is assumed to be a constant value of 110 lb/ft³ (1762 kg/m³)
2. Concentration varies linearly within sampling stations
3. Mass varies linearly with depth

The results of total mass and impacted area of TPH at different depths below ground surface are presented in Table 1 through Table 3 for TPH as Diesel, TPH as Motor Oil, and TPH as Gasoline, respectively. Concentration contour lines at different depths are shown in Figure 1 through Figure 3.

Table 1 Total Mass and Impact Area of TPH as Diesel

Depth (ft) BGS	Impact Area (ft ²)	Mass (lbs)/ft	Total Mass (lbs)
2	1770032	105410	105410
3	1682807	170021	243126
5	1595582	299244	712391
10	1476774	562619	2867049

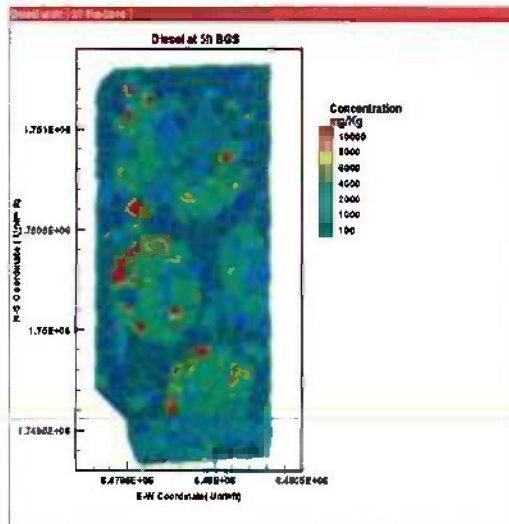
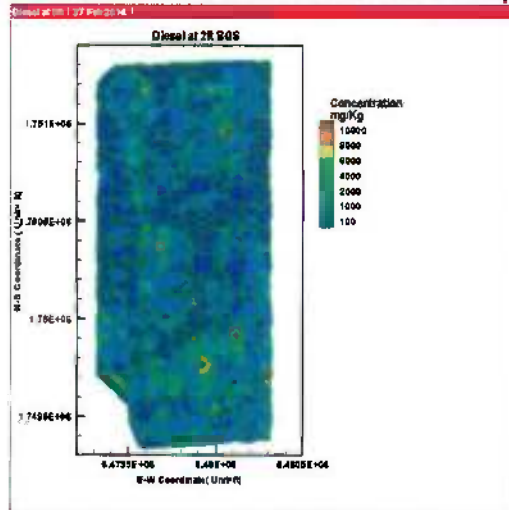
Table 2 Total Mass and Impact Area of TPH as Motor Oil

Depth (ft) BGS	Impact Area (ft2)	Mass (lbs)/ft	Total Mass (lbs)
2	1792074	187857	187857
3	1710030	240675	402123
5	1627986	346310	989108
10	1528505	605052	3367513

Table 3 Total Mass and Impact Area of TPH as Gasoline

Depth (ft) BGS	Impact Area (ft2)	Mass (lbs)/ft	Total Mass (lbs)
2	991603	1797	1797
3	1192861	8596	6994
5	1394119	22164	37739
10	1398650	55342	231504

Figure 1 Concentration contour line at different depths for TPH as Diesel



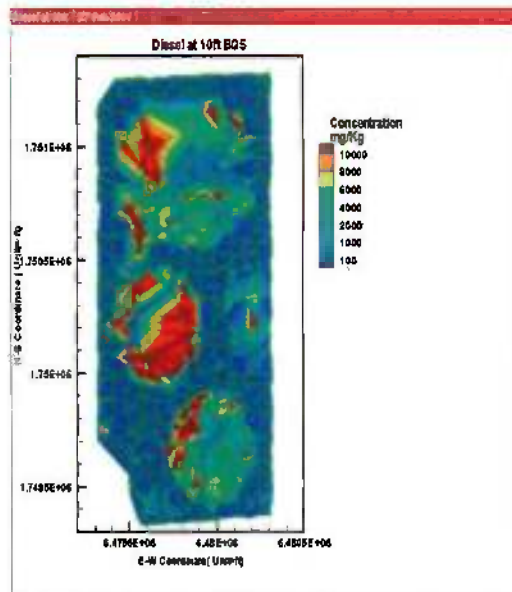
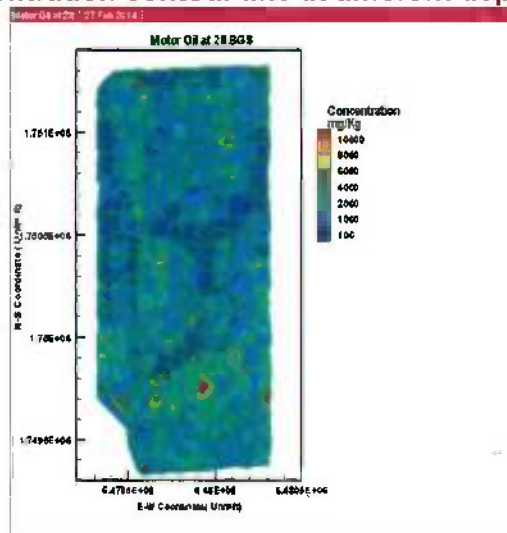


Figure 2 Concentration contour line at different depths for TPH as Motor Oil



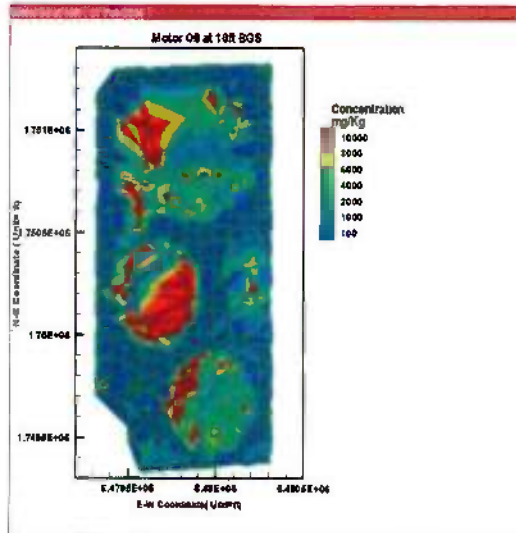
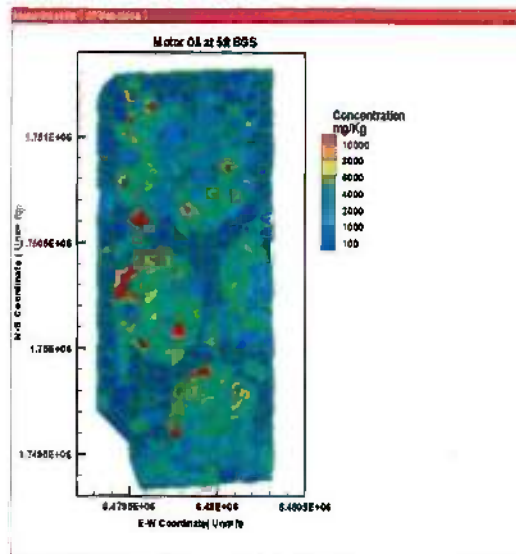
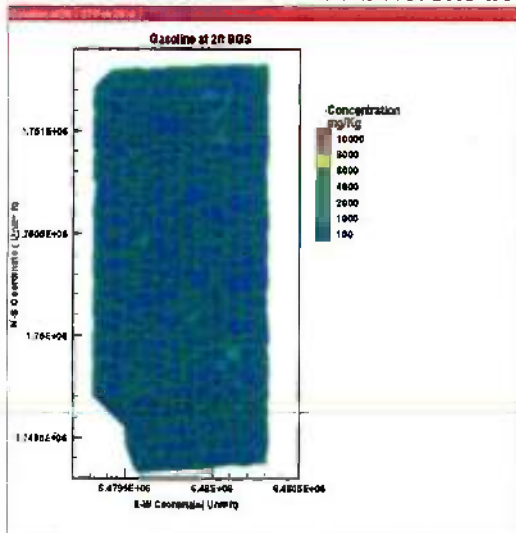


Figure 3 Concentration contour line at different depths for TPH as Gasoline



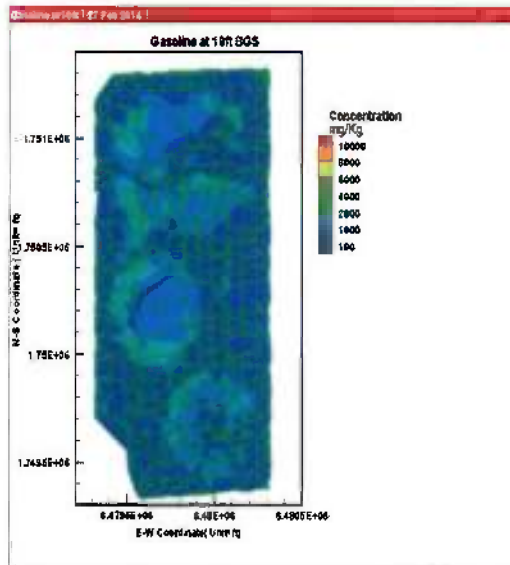
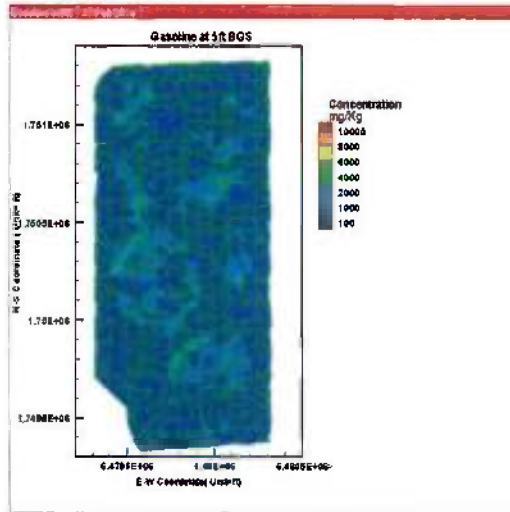


EXHIBIT 12



Shell Oil Products US
Environmental Services
20945 S. Wilmington Avenue
Carson, CA 90810
Tel 703-403-6790
Email: douglas.weimer@shell.com

Via Email and First Class Mail

May 29, 2014

Samuel Unger
Executive Officer
California Regional Water Quality Control Board –
Los Angeles Region
320 W. Fourth Street, Suite 200
Los Angeles, California 90013

Re: *Former Kast Property, Case No. SCP 1230 – Request for a Two-Week Extension for Submission of Revised Remedial Action Plan, Feasibility Study and Human Health Risk Assessment Report*

Dear Executive Officer Unger:

On behalf of Shell Oil Products US and Shell Oil Company (collectively, “Shell”), I am submitting this request for a two-week extension of the deadline for submittal of the Revised Remedial Action Plan (RAP), Feasibility Study (FS) and Human Health Risk Assessment Report (HHRA Report). Pursuant to the review letters dated April 30, 2014 and May 14, 2014 from the Regional Water Quality Control Board – Los Angeles Region (RWQCB), the current deadline for submission of these documents is June 16, 2014. If this request is granted, the new deadline will be June 30, 2014.

Since receiving the RWQCB’s April 30, 2014 review letter, Shell and its consultants have met with RWQCB staff to discuss and clarify the RWQCB’s comments on the RAP, FS and HHRA Report and we have made substantial progress on many of the issues raised in the RWQCB’s review letter. There are a few technical issues for which Shell and its consultants are preparing additional analysis and information to provide to RWQCB staff. For this reason a short extension is required so that Shell and its consultants can prepare the analyses and get additional feedback from RWQCB staff before the revised documents are finalized and submitted.

Samuel Unger
Executive Officer, Regional Water Quality Control Board
May 29, 2014
Page 2

Please note that the additional time will not result in any material delay in the progress of the environmental review being performed by PCR Services Corporation.

Sincerely,

A handwritten signature in blue ink that reads "Doug Weimer". The signature is written in a cursive style with a large initial "D".

Doug Weimer
Sr. Principle Program Manager
Shell Oil Products US

cc: Paula Rasmussen, Assistant Executive Officer

EXHIBIT 13

Los Angeles Regional Water Quality Control Board

April 30, 2014

Mr. Douglas Weimer
Shell Oil Products, United States
Environmental Services Company
20945 S. Wilmington Avenue
Carson, CA 90810

Certified Mail
Return Receipt Requested
Claim No. 70123460000021663324

SUBJECT: NOTICE OF VIOLATION FOR DEFICIENT REMEDIAL ACTION PLAN PURSUANT TO CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046 AS AMMENDED BY REGIONAL BOARD CORRESPONDENCE DATED AUGUST 21, 2013 AND JANUARY 23, 2014

SITE/CASE: FORMER KAST TANK FARM, CARSON, CA (SITE CLEANUP NO. 0075, SITE ID NO. 204830 AND CLEANUP AND ABATEMENT ORDER NO. R4-2011-0046; FILE NO. 97-0043

Dear Mr. Weimer:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the public agency with primary responsibility for the protection of ground and surface water quality for all beneficial uses within major portions of Los Angeles and Ventura Counties.

The Regional Board is the lead agency overseeing the environmental investigation and cleanup of the Former Kast Property Tank Farm Site (Site) under the authority of the Porter-Cologne Water Quality Control Act (Cal. Water Code §§13000 et seq.) and other applicable laws and regulations. Pursuant to Water Code sections 13304 and 13267, the Regional Board issued Cleanup and Abatement Order No. R4-2011-0046 (CAO) on March 11, 2011, requiring Shell Oil Products US (SOPUS) on behalf of Shell Oil Company (collectively, Shell) to investigate and clean up discharges of waste in soil and groundwater at the Site.

The CAO required Shell to completely delineate the extent of waste discharged in soil, soil vapor, and groundwater both on and off the Site. The investigation of the Site was summarized in the Site Delineation Report on April 29, 2011. The Site Delineation Report concluded that total petroleum hydrocarbons (TPH) in soil extend below properties to depths of at least 10 feet.

Paragraph 3.c.II. of the CAO, as amended, required Shell to submit a remedial action plan (RAP) designed to cleanup all constituents of concern to levels protective of residential (i.e., unrestricted) land use and to achieve the applicable water quality objectives in the Regional Board's water quality control plan (Basin Plan).

On February 22, 2013, Shell submitted a Site-Specific Cleanup Goal Report (Report) to the Regional Board. The Report proposed site specific cleanup goals (SSCGs) for the constituents of concern.

On August 21, 2013, in correspondence to Shell, the Regional Board rejected the proposed SSCGs and directed Shell to revise the SSCGs in accordance with comments and directives contained in the letter, comments from the UCLA Expert Panel (convened to provide input to the Regional Board regarding site cleanup), and comments from the Office of Environmental Health Hazard Assessment.

On October 21, 2013, Shell submitted a revised SSCG Report (Revised Report) that included revised SSCGs. The Regional Board reviewed the Revised Report and determined that the revised SSCGs failed to meet the Regional Board's directives listed in the August 21, 2013 letter. The Regional Board concluded that the revised SSCGs proposed by Shell did not adequately address TPH leaching to groundwater from soil or the potential for soil vapor to intrude into residences.

On January 23, 2014, the Regional Board issued Shell a letter approving modified SSCGs to address TPH and soil vapor and directed Shell to submit a RAP and updated Human Health Risk Assessment (HHRA) in accordance with the modified SSCGs by March 10, 2014.

On March 10, 2014, as required by the CAO, Shell's consultant, URS Corporation, submitted a proposed RAP which included a Feasibility Study and HHRA.

On April 30, 2014, the Regional Board provided Shell with comments on the proposed RAP with a directive to submit a revised RAP by May 30, 2014. The Regional Board determined the proposed RAP was inadequate as it was not based on all of the SSCGs as approved by the Regional Board in its January 23, 2014 letter, as follows:

- The RAP is not based on the approved SSCGs for TPH that protect groundwater as required by the CAO.
 - Shell did not base the RAP on the SSCGs for TPH in soil as modified and approved in the Regional Board's January 23, 2014 letter. Rather, Shell based the RAP on SSCGs for TPH in soils using the Regional Board's "Interim Site Assessment Cleanup Guidebook, 1996".
- The RAP is not based on the approved SSCGs that protect residential (i.e. unrestricted) land use as required by the CAO.
 - Shell did not base the RAP on the SSCGs for soil vapor using an attenuation factor of 0.002 for indoor air concentrations to outdoor air concentrations as modified and approved in the Regional Board's January 23, 2014 letter. Rather, Shell applied the 0.002 attenuation factor for indoor air to sub-slab soil gas concentrations.

- The RAP is not based on boundaries from the Site Delineation Report as directed in the Regional Board's Jan. 23, 2014 letter.
 - The Regional Board's January 23, 2013 letter required Shell to use the results in the Site Delineation Report and the results in the property-by-property investigations in developing the RAP. Shell used only the results of the property-by-property investigations in developing the RAP.

YOU ARE HEREBY NOTIFIED that you are in violation of Cleanup and Abatement Order No. R4-2011-0046 issued pursuant to the California Water Code (CWC) section 13304 on March 11, 2011 by the Regional Board Chief Deputy Executive Officer and amended by the Executive Officer in correspondence to Shell dated August 21, 2013 and January 23, 2014 by failing to submit a RAP based on SSCGs for TPH and soil vapor and on the findings in the Site Delineation Report by the required deadline of March 10, 2014.

You are required to comply with the requirements of Cleanup and Abatement Order No. R4-2011-0046, as amended, by submitting a revised RAP by June 16, 2014 that is based on the approved SSCGs and consistent with the comments set forth in the Regional Board's letter of April 30, 2014.

Compliance with the action set forth in this Notice of Violation does not affect the Regional Board's authorization to take enforcement action against you for any of the violations noted herein.

Pursuant to CWC §13350 (e), you are subject to penalties of up to \$5,000 for each day in which the violation occurs or \$10 for each gallon of waste discharged, but not both. These civil liabilities may be assessed by the Regional Board for failure to comply, beginning with the date that the violations first occurred, and without further warning. The matter may be referred to the Attorney General for further enforcement. The Regional Board reserves its right to take any further enforcement action authorized by law.

If you have any questions, please contact Tekylwold Ayalew at (213) 576-6623 (tawalew@waterboards.ca.gov) or Thizar Williams at (213) 57803 or (twilliams@waterboards.ca.gov).

Sincerely,


Samuel Unger, P.E.
Executive Officer

Cc: Janice Hahn, Honorable Congresswoman, US House of Representatives,
California's 44th District

Isadore Hall, III, Assembly member, 64th Assembly District
Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles
Jim Dear, Mayor of Carson
Michael Lauffer, Office of Chief Counsel, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control Board
James Carlisle, Office of Environmental Health Hazard Assessment
Robert Romero, Department of Toxic Substances Control
Alfonso Medina, Los Angeles County Department of Health
Angelo Bellomo, Los Angeles County Department of Health
Bill Jones, Los Angeles County Fire Department
Barry Nugent, Los Angeles County Fire Department
Shahin Nourishad, Los Angeles County Fire Department
Miguel Garcia, Los Angeles County Fire Department
Kim Clark, Los Angeles County Fire Department
Cyrus Rangan, Los Angeles County Department of Health
Angelo Bellomo, Los Angeles County Department of Health
Jackie Acosta, Carson Acting City Manager
Ky Truong, City of Carson
Karen A. Lyons, Shell Oil Products US
Alison Abbott Chassin, Shell Oil Products US
Roy Patterson, URS Corporation
Chris Osterberg, URS Corporation
Michelle Vega, Edelman
Robert Ettinger, Geosyntec
Mark Grivetti, Geosyntec
Thomas V. Girardi, Girardi and Keese Lawyers
Robert W. Bowcock, Integrated Resource Management, LLC
Deanne L. Miller, Morgan, Lewis & Bockius LLP
Patrick Dennis, Gibson Dunn

EXHIBIT 14



Hand Delivered

May 12, 2014

Samuel Unger
Executive Officer
California Regional Water Quality Control Board – Los Angeles Region
320 W. 4th Street, Suite 200
Los Angeles, California 90013

Re: Responses to Comments included in April 30, 2014 Notice of Violation for Deficient Remedial Action Plan Pursuant to Cleanup and Abatement Order No. R4-2011-0046 as Amended by Regional Board Correspondence Dated August 21, 2013, and January 23, 2014.

Dear Mr. Unger:

Shell Oil Company and Shell Oil Products US (collectively, "Shell") provide the attached responses to comments included in the subject Notice of Violation ("NOV") dated April 30, 2014.

Shell respectfully disagrees with the NOV. As explained in detail in the attached table, the three grounds on which the Regional Board based the NOV are inconsistent with the actual language contained in the Regional Board's January 23, 2014 letter, and disregard key portions of the proposed Remedial Action Plan ("RAP").

To summarize the problems with the three grounds raised in the Regional Board's NOV:

- Regarding the cleanup goals for Total Petroleum Hydrocarbons ("TPH") in soil, the value for TPH motor oil contained in the Regional Board's January 23, 2014 letter is based on dividing the value presented in Shell's Revised SSCG Report by 6.24 to eliminate the dilution attenuation factor ("DAF") from the SSCG calculation; however, as we have previously explained, no such DAF had been applied in the first place. Although Shell has raised this issue with the Regional Board, the Regional Board has never addressed this point in its January 23, 2014 letter, during the multiple subsequent meetings when the draft RAP was discussed, or in the NOV. Moreover, Regional Board staff expressly stated at two different meetings with Shell that they would consider alternative values when they reviewed the RAP and invited Shell to submit such values for consideration.
- Regarding the Regional Board's claim that Shell failed to apply an attenuation factor of 0.002 "for indoor air to outdoor air concentrations," this requirement was not included in the Regional Board's January 23, 2014 letter. Instead, the letter specifically addressed the use of an attenuation factor for soil vapor cleanup goals. The Regional Board staff never raised this issue during the meetings with Shell where the draft RAP was discussed. Moreover, Shell used the Regional Board's soil vapor SSCGs based on the site-wide attenuation factor of 0.002 to estimate vapor intrusion risks based on sub-slab soil vapor concentrations and these results were incorporated into the RAP.
- Regarding the Regional Board's claim that Shell failed to use data from the Plume Delineation Report in the RAP, the Regional Board's January 23, 2014 letter only required Shell to *consider* that data. In any case, Shell not only considered but did use data from the Plume Delineation Report, the soil



concentration contour maps and the property-specific investigations in developing the remedial approach proposed in the RAP.

Shell does not believe its proposed RAP and the other reports and documents submitted on March 10, 2014 violate any Regional Board directive. Accordingly, Shell requests that the NOV be withdrawn. Shell looks forward to discussing any remaining issues with the Regional Board staff so that further misunderstandings can be avoided.

Finally, please note that the NOV states on Page 2 that the Regional Board has issued a directive to submit a revised Remedial Action Plan (RAP) by May 30, 2014. Per the April 30, 2014 comment letter prepared by the Regional Board, the revised RAP is due on June 16, 2014. Accordingly, we request that you confirm in writing that the revised RAP is due to the Regional Board on June 16, 2014.

We appreciate your consideration. Please contact me at (703) 403-6790 to discuss Shell's response.

Sincerely,

A handwritten signature in black ink that reads "Doug Weimer". The signature is written in a cursive, flowing style.

Doug Weimer
Sr. Principle Program Manager
Shell Oil Product US



Regional Board Comment	Response
<p>The RAP is not based on approved SSCGs for TPH that protect groundwater as required by the CAO.</p> <ul style="list-style-type: none">• Shell did not base the RAP on the SSCGs for TPH in soil as modified and approved in the Regional Boards' [sic] January 23, 2014 letter. Rather, Shell based the RAP on SSCGs for TPH in soils using the Regional Board's "Interim Site Assessment Cleanup Guidebook, 1996".	<ul style="list-style-type: none">• Following receipt of the January 23, 2014 letter, Shell and their consultants met with the Regional Board staff on January 24, 2014. During this meeting, Shell explained some of the technical concerns regarding the soil SSCGs presented in the Regional Board's January 23, 2014 letter. These concerns included:<ul style="list-style-type: none">(i) inconsistency of the calculation methodology used by the Regional Board with guidance documents referenced in the Cleanup and Abatement Order (CAO) that utilize dilution attenuation factors (DAF) in evaluating the soil leaching to groundwater pathway; and(ii) that it was inappropriate for the Regional Board to adjust the SSCG for TPH-mo presented in the Revised SSCG Report, because this value was based on the residual oil saturation and not calculated using a DAF. The Shell team asked if the RAP could include proposed SSCGs for TPH for the protection of groundwater that are different than those presented in the Regional Board's January 23, 2014 letter. At this meeting, the Regional Board said they would consider alternate TPH cleanup goals during their review of the RAP.• On February 13, 2014, Shell met with Sam Unger and Paula Rasmussen to provide a preliminary explanation of the proposed approach for the RAP. During this discussion, Shell again informed the Regional Board that it planned to use the default TPH cleanup goals from the Regional Board Guidebook. Neither you nor Ms. Rasmussen expressed any concerns regarding use of these values; rather, you indicated that the Regional Board would consider our request during your review of the RAP.• Shell submitted a formal objection to the soil SSCGs listed in the Regional Board's January 23, 2014 letter prior to submittal of the RAP. In the February 24, 2014 petition submitted by counsel on Shell's behalf, technical issues associated with the January 23, 2014 SSCGs for TPH for the protection of groundwater provided by the Regional Board were identified. These included:<ul style="list-style-type: none">○ Inconsistency with guidance documents referenced in the CAO with respect to the use of a DAF○ That it is incorrect to divide the SSCG for TPH-mo in the Revised SSCG Report by 6.24,



Regional Board Comment	Response
	<p>because SSCG for TPH-mo in the Revised SSCG Report was based on the residual oil saturation and not calculated using a DAF. This issue has never been addressed by the Regional Board.</p>
<p>The RAP is not based on the approved SSCGs that protect residential (i.e., unrestricted) land use as required by the CAO.</p> <ul style="list-style-type: none">• Shell did not base the RAP on the SSCGs for soil vapor using an attenuation factor of 0.002 for indoor air concentrations to outdoor air concentrations as modified and approved in the Regional Board’s January 23, 2014 letter. Rather Shell applied the 0.002 attenuation factor for indoor air to sub-slab soil gas concentrations.	<ul style="list-style-type: none">• This comment does not make sense. An attenuation factor for indoor air concentrations to outdoor air concentrations: (i) was not used in the SSCG calculations, (ii) was not listed in the Regional Board January 23, 2014 letter, and (iii) does not follow a reasonable conceptual site model of exposure.• The Revised SSCG Report presented a single set of soil vapor SSCGs for the site for the vapor intrusion pathway, encompassing sub-slab soil vapor and soil vapor. Section 7.1.1.5 of the Revised SSCG Report states that values listed in Table 7-2 (which are repeated in Table 9-3 of the Revised SSCG Report) are the SSCGs for <u>sub-slab</u> soil vapor at the Site. In its January 23, 2014 letter (at pages 5 and 6), the Regional Board noted that the Revised SSCG Report uses an attenuation factor of 0.001 and then stated that “[t]he Regional Board hereby approves the SSCGs for COC in soil vapor based on the attenuation factor of 0.002.” Nowhere did the Regional Board clarify that this change was intended to apply for “indoor air concentrations to outdoor air concentrations” and not to sub-slab soil vapor cleanup goals. Indeed, if the attenuation factor of 0.002 referenced by the Regional Board in the January 23, 2014 letter actually was not intended to be applied to these sub-slab soil vapor cleanup goals, then it is not clear that the Regional Board made <u>any</u> comment on the sub-slab to soil vapor SSCGs. It should be noted that the values presented in Table 2 in the Regional Board’s January 23, 2014 letter are the <u>sub-slab</u> soil vapor cleanup goals proposed by Shell but adjusted to reflect the attenuation factor of 0.002 rather than the attenuation factor of 0.001 used in the Revised SSCG Report. The Regional Board soil vapor SSCGs were then applied to the sub-slab soil vapor data in the risk assessment as this is considered the most robust and relevant dataset to evaluate potential vapor intrusion at this site. Again, nowhere in the January 23, 2014 letter did the Regional Board discuss the need to apply an attenuation factor to “indoor air to outdoor air concentrations”—not in the letter itself and not in Table 2. Nor did the Regional



Regional Board Comment	Response
	<p>Board ever take the opportunity to clarify this issue during the subsequent meetings when the draft RAP was discussed.</p> <ul style="list-style-type: none">• The vapor intrusion attenuation factor listed in the Regional Board’s January 23, 2014 letter is the default value from the 2011 DTSC Vapor Intrusion guidance and does not consider the effect of vadose-zone natural biodegradation on the vapor intrusion attenuation factor. Data collected at the Site indicates that vadose-zone natural biodegradation is significant at the Site. This natural biodegradation would result in an attenuation factor that is lower the DTSC default value of 0.002 which is applicable for non-degradable compounds. As a result, the vapor intrusion attenuation factor in the Regional Board’s January 23, 2014 letter is overly conservative when applied to soil vapor results for petroleum hydrocarbons.• In an attachment to the January 23, 2014 Regional Board letter, the Expert Panel comments state that the sub-slab soil vapor to indoor air attenuation factor in the Revised SSCG Report is “very low” and makes a recommendation “to not use a generic attenuation factor, but rather a home-specific attenuation factor.” The recommendation to assess home-specific attenuation factors is not practical given that the indoor air data collected at the Site are indistinguishable from background concentrations, which precludes the calculation of a home-specific attenuation factor. Property-specific, multiple-lines-of-evidence vapor intrusion assessments were included in the interim reports which included indoor air sampling. These assessments concluded that compounds detected in indoor air appear to be due to background sources and not sub-surface vapor intrusion. The HHRA used the Regional Board’s soil vapor SSCGs based on the site-wide attenuation factor of 0.002 to estimate vapor intrusion risks based on sub-slab soil vapor concentrations and these results were incorporated into the RAP. If the results of the property-specific multiple-lines-of-evidence vapor intrusion assessments indicating that vapor intrusion is not occurring were used, then the RAP proposed more vapor intrusion mitigation systems than warranted and is therefore protective of residential land use.• The soil vapor analytical results (predominately from samples collected in the streets) were compared to the



Regional Board Comment	Response
	<p>Regional Board's soil vapor SSCGs calculated using an attenuation factor of 0.002 and were included in the RAP. Table 5 of the HHRA shows a comparison of the soil vapor results (for samples collected on residential properties and within public rights of way) to soil vapor SSCGs from the January 23, 2014 Regional Board letter. Figures 3-10 and 3-11 of the RAP show locations with exceedances of the soil vapor SSCGs (from the January 23, 2014 Regional Board letter) for benzene and naphthalene. In addition to remediating TPH in soil, comparison of the layout of the proposed SVE/bioventing system detailed in the RAP and distribution of soil vapor samples shows that the RAP targets remedial action for areas where soil vapor concentrations exceed the Regional Board SSCGs.</p>
<p>The RAP is not based on boundaries from the Site Delineation Report as directed in the Regional Board's Jan. 23, 2014 letter.</p> <ul style="list-style-type: none">The Regional Board's January 23, 2014 letter required Shell to use the results in the Site Delineation Report and the results in the property-by-property investigation in developing the RAP. Shell used only the results of the property-by-property investigations in developing the RAP.	<ul style="list-style-type: none">The Regional Board's January 23, 2014 letter to Shell states (at page 9) that "Shell shall <i>consider</i> (emphasis added) the results in the Site Delineation Report, soil concentrations contours and the results of the property-by-property investigations in developing the RAP." (Shell assumes the Regional Board is referring to the Plume Delineation Report.) This comment was discussed with the Regional Board during the January 24, 2014 meeting. Shell requested clarification from the Regional Board on what they were referring to with respect to the Site Delineation Report and soil concentration contours and the word "consider" was emphasized by the Regional Board staff at that time. These data sets were clearly considered and the soil vapor extraction/bioventing system was included in the RAP to address the distribution of petroleum hydrocarbons identified in the Plume Delineation Report, soil concentrations contours, and the results of the property-by-property investigations. Moreover, these data sets were expressly included throughout the RAP:<ul style="list-style-type: none">Analytical results presented in the Plume Delineation Report as well as data collected from area-wide and residential property investigations prior to and subsequent to the submittal of the Plume Delineation Report were included in the HHRA and RAP.Soil and soil vapor concentration contour maps were initially prepared in response to the Regional Board's February 18, 2011 comments approving a step-out sampling work plan that



Regional Board Comment	Response
	<p>was prepared subsequent to the Plume Delineation Report, and the maps were transmitted to the Regional Board on April 29, 2011. Shell's consultants updated these maps with more recent data, and included the updated contour maps in Appendix B of the RAP.</p> <ul style="list-style-type: none">○ Analytical results from the property-by-property investigations were included in tables and figures included the HHRA and RAP.● The data identified in the Regional Board's January 23, 2014 letter to Shell were considered in the preparation of the RAP. The following tables and figures in the RAP show where these factors were considered:<ul style="list-style-type: none">○ HHRA Tables 1a through 3, which present statistical summaries of soil matrix data, soil vapor data, and groundwater data collected from residential properties and streets, which were included in the Plume Delineation Report, along with subsequent data.○ HHRA Appendix E, which presents incremental risk and hazard calculations for residents (soil and sub-slab soil vapor), construction workers for residential properties, and construction and utility maintenance workers in streets, which were based on data that were included in the Plume Delineation Report, as well as subsequent data.○ RAP Figures 3-3 through 3-14, which present distribution of select analytes in soil, sub-slab soil vapor, soil vapor, and groundwater both on residential properties and throughout the Site, which were derived from data that were included in the Plume Delineation Report, as well as subsequent data.○ RAP Appendix B, which presents contour maps of select analytes in soil throughout the Site that were prepared in March 2014 updating the contour maps provided in April 2011.○ RAP Section 8.2.3, which states that the actual locations for installation of residential SVE/bioventing wells will be established during system design based on COC and methane distribution in the subsurface (as depicted on Figures 3-3 through 3-11 and Appendix B).○ RAP Appendix A (cross-reference table of



Regional Board Comment	Response
	Regional Board requirements) at the bottom of page A-1 states that the RAP includes updated contour maps and that Section 8.2.3 describes how these contours will be used in the remedial strategy.

EXHIBIT 15

Los Angeles Regional Water Quality Control Board

May 29, 2014

Douglas J. Weimer
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810

SUBJECT: REVISED SITE SPECIFIC CLEANUP GOALS FOR TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL AND BENZENE

SITE: FORMER KAST PROPERTY TANK FARM LOCATED SOUTHEAST OF THE INTERSECTION OF MARBELLA AVENUE AND EAST 244TH STREET, CARSON, CALIFORNIA (SCP NO. 1230, SITE ID 2040330, CAO NO. R4-2011-0046)

Dear Mr. Weimer:

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) is the lead agency overseeing the environmental investigation and cleanup of the Former Kast Property Tank Farm Site (Site) under the authority of the Porter-Cologne Water Quality Control Act (Cal. Water Code §§13000 et seq.) and other applicable laws and regulations. Pursuant to Water Code sections 13304 and 13267, the Regional Board issued Cleanup and Abatement Order No. R4-2011-0046 (CAO) on March 11, 2011, requiring Shell Oil Products US (SOPUS) on behalf of Shell Oil Company (collectively, Shell) to investigate and clean up discharges of waste in soil and groundwater at the Site.

The CAO required Shell to submit proposed site-specific cleanup goals (SSCGs) for residential (i.e., unrestricted) land use for Regional Board approval. The CAO required that SSCGs that are approved by the Regional Board were to be used in developing the RAP. On February 22, 2013, Shell submitted proposed SSCGs, and submitted revised SSCGs on October 21, 2013 based on Regional Board comments. Consequently, the Regional Board modified some of the SSCGs in a letter dated January 23, 2014 and directed Shell to submit the remedial action plan (RAP) and other documents in accordance with the approved and modified SSCGs by March 10, 2014.

On March 10, 2014, Shell submitted the RAP, Feasibility Study (FS), and the Human Health Risk Assessment (HHRA). The RAP focuses on cleanup of waste in soil, soil vapor and groundwater based on an evaluation of cleanup alternatives that is provided in the FS. The HHRA evaluates present and future health risks to residents on a Site-wide basis to assist in the evaluation of cleanup alternatives. Documents regarding the Site may be found at <http://www.waterboards.ca.gov/losangeles/Kast/index.shtml>. In a letter dated April 30, 2014, the Regional Board provided comments on the RAP, FS and HHRA and directed Shell to revise the RAP, FS and HHRA to address comments from the Regional Board, the Office of Environmental Health Hazard Assessment and the UCLA Expert Panel.

Notice of Violation

On April 30, 2014, the Regional Board Executive Officer provided Shell with a Notice of Violation (NOV) asserting that Shell had (1) failed to base the RAP on the approved SSCGs for TPH; (2) failed to base the RAP on the approved SSCGs for soil vapor using the appropriate attenuation factor; and (3) failed to base the RAP on boundaries from the Site Delineation Report. In response to the NOV, Shell submitted a letter dated May 12, 2014 commenting on the violations asserted in the NOV.

The Regional Board staff reviewed Shell's letter and responds as follows:

- With respect to Item (1) of the NOV, the Regional Board staff has reviewed the approved SSCGs and has determined that the Regional Board made a calculation error with respect to TPH motor oil¹. In addition, the Regional Board staff found a typographical error on the SSCG for benzene. The approved SSCGs for TPH motor oil and benzene are, therefore, revised as follows:

Constituents of Concern	Soil Cleanup Goals (mg/kg)	
	0-5 feet	5-10 feet
TPH		
TPH-Motor Oil	No change	10,000
VOCs		
Benzene	No change	0.0208

- With respect to Items (2) and (3) of the NOV, the Regional Board will respond in a separate letter at a later time.

If you have any questions, please contact the project manager, Dr. Teklewold Ayalew at (213) 576-6739 (tayalew@waterboards.ca.gov), or Ms. Thizar Tintut-Williams, Site Cleanup Unit III Chief, at (213) 576-6723 (twilliams@waterboards.ca.gov).

Sincerely,


Samuel Unger, PE
Executive Officer

cc: List

¹ On February 24, 2014, Shell filed a petition with the State Water Resources Control Board requesting review of the Regional Board's modified SSCGs. At the request of Shell, that petition is being held in abeyance by the State Water Board. In Shell's petition, Shell pointed out, among other contentions, that the Regional Board incorrectly calculated the SSCG for TPH as motor oil. See In the Matter of the Petition of Equilon Enterprises LLC dba Shell Oil Products US and Shell Oil Company, Cleanup and Abatement order R4-2011-0046, California Regional Water Quality Control Board, Los Angeles Region: Petition for Review and Request for Hearing, Paragraphs 5.d, page 5 (regarding "TPH motor oil"). The Regional Board agrees with this contention raised in the petition with respect to "TPH motor oil" only.

Mailing List

Janice Hahn, Honorable Congresswoman, US House of Representatives,
California's 44th District
Isadore Hall, III, Assembly member, 64th Assembly District
Mark Ridley-Thomas, Supervisor, Second District County of Los Angeles
Jim Dear, Mayor of Carson
Michael Lauffer, Office of Chief Counsel, State Water Resources Control Board
Frances McChesney, Office of Chief Counsel, State Water Resources Control Board
James Carlisle, Office of Environmental Health Hazard Assessment
Robert Romero, Department of Toxic Substances Control
Alfonso Medina, Los Angeles County Department of Health
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Alison Abbott Chassin, Shell Oil Products US
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Chris Osterberg, URS Corporation
Michelle Vega, Edelman
Robert Ettinger, Geosyntec
Mark Grivetti, Geosyntec
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Krista deBoer, Gibson, Dunn & Crutcher LLP
Patrick Dennis, Gibson, Dunn & Crutcher LLP