Previous

N00236.002042
ALAMEDA POINT
SSIC NO. 5090.3

FIGURES

FINAL OPERABLE UNIT 2B
REMEDIAL INVESTIGATION REPORT
SITES 3, 4, 11, AND 21

DATED 05 AUGUST 2005

Tetra Tech EM Inc.

CITY

HIGHWAY

COUNTY BORDER

Alameda Point
U.S. Navy Southwest Division, NAVFAC, San Diego

FIGURE F.3-1
ALAMEDA POINT LOCATION MAP

Operable Unit 2B
Human Health Risk Assessment
Remedial Investigation Report

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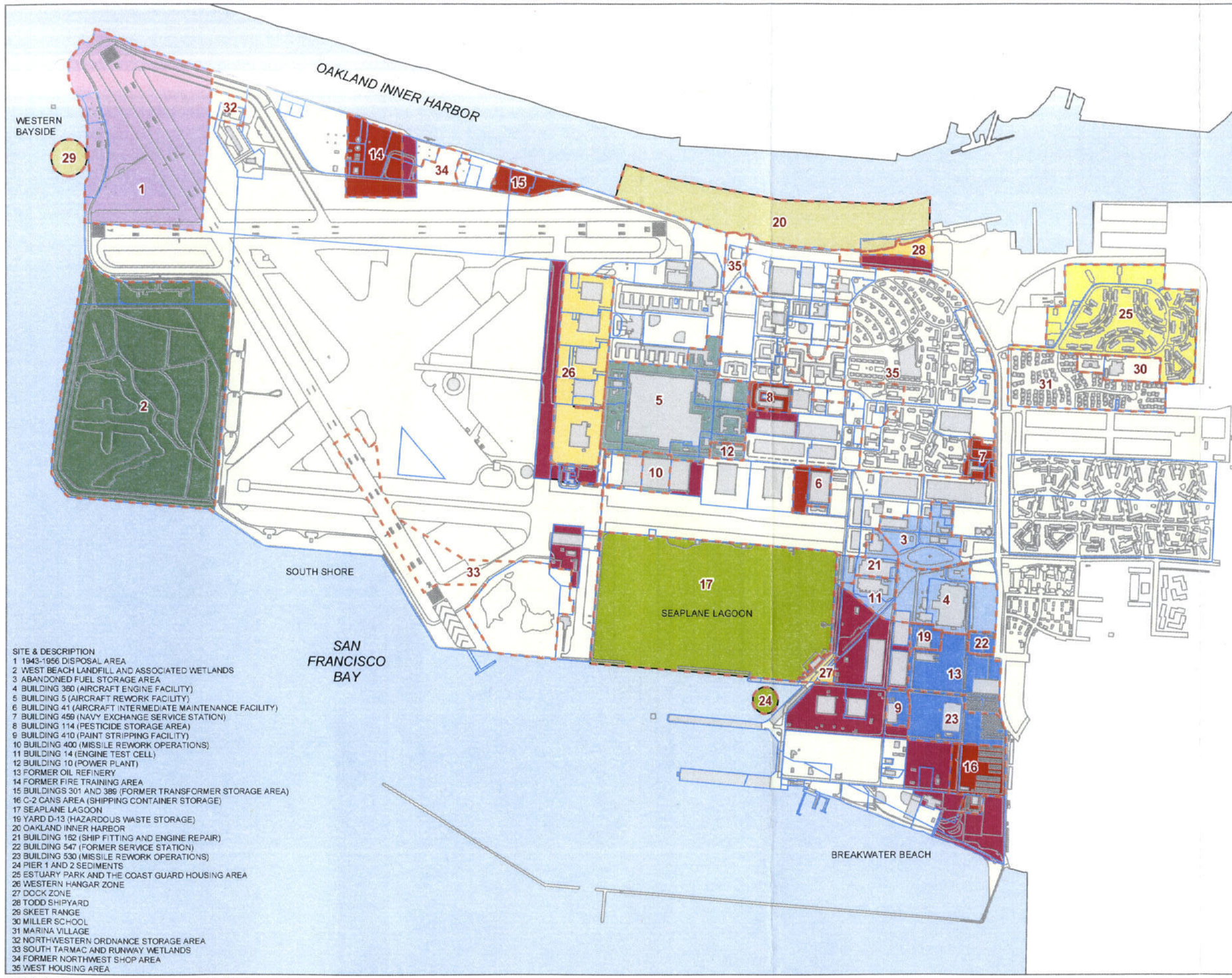

SITE & DESCRIPTION
1 1943-1956 DISPOSAL AREA
2 WEST BEACH LANDFILL AND ASSOCIATED WETLANDS
3 ABANDONED FUEL STORAGE AREA
4 BUILDING 360 (AIRCRAFT ENGINE FACILITY)
5 BUILDING 5 (AIRCRAFT REWORK FACILITY)
6 BUILDING 41 (AIRCRAFT INTERMEDIATE MAINTENANCE FACILITY)
7 BUILDING 459 (NAVY EXCHANGE SERVICE STATION)
8 BUILDING 114 (PESTICIDE STORAGE AREA)
9 BUILDING 410 (PAINT STRIPPING FACILITY)
10 BUILDING 400 (MISSILE REWORK OPERATIONS)
11 BUILDING 14 (ENGINE TEST CELL)
12 BUILDING 10 (POWER PLANT)
13 FORMER OIL REFINERY
14 FORMER FIRE TRAINING AREA
15 BUILDINGS 301 AND 389 (FORMER TRANSFORMER STORAGE AREA)
16 C-2 CANS AREA (SHIPPING CONTAINER STORAGE)
17 SEAPLANE LAGOON
19 YARD D-13 (HAZARDOUS WASTE STORAGE)
20 OAKLAND INNER HARBOR
21 BUILDING 162 (SHIP FITTING AND ENGINE REPAIR)
22 BUILDING 547 (FORMER SERVICE STATION)
23 BUILDING 530 (MISSILE REWORK OPERATIONS)
24 PIER 1 AND 2 SEDIMENTS
25 ESTUARY PARK AND THE COAST GUARD HOUSING AREA
26 WESTERN HANGAR ZONE
27 DOCK ZONE
28 TODD SHIPYARD
29 SKEET RANGE
30 MILLER SCHOOL
31 MARINA VILLAGE
32 NORTHWESTERN ORDNANCE STORAGE AREA
33 SOUTH TARMAC AND RUNWAY WETLANDS
34 FORMER NORTHWEST SHOP AREA
35 WEST HOUSING AREA

CERCLA SITE
BUFFER ZONE
OPERABLE UNIT 1
OPERABLE UNIT 2A
OPERABLE UNIT 2B
OPERABLE UNIT 2C
OPERABLE UNIT 3
OPERABLE UNIT 4A
OPERABLE UNIT 4B
OPERABLE UNIT 4C
OPERABLE UNIT 5
OPERABLE UNIT 6
BUILDING
LAND COVER
OPEN WATER

Notes:
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act of 1980

600 0 600 1200 Feet

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FIGURE F.3-2
OPERABLE UNITS, CERCLA SITES AND DISPOSAL PARCELS

Operable Unit 2B
Human Health Risk Assessment
Remedial Investigation Report

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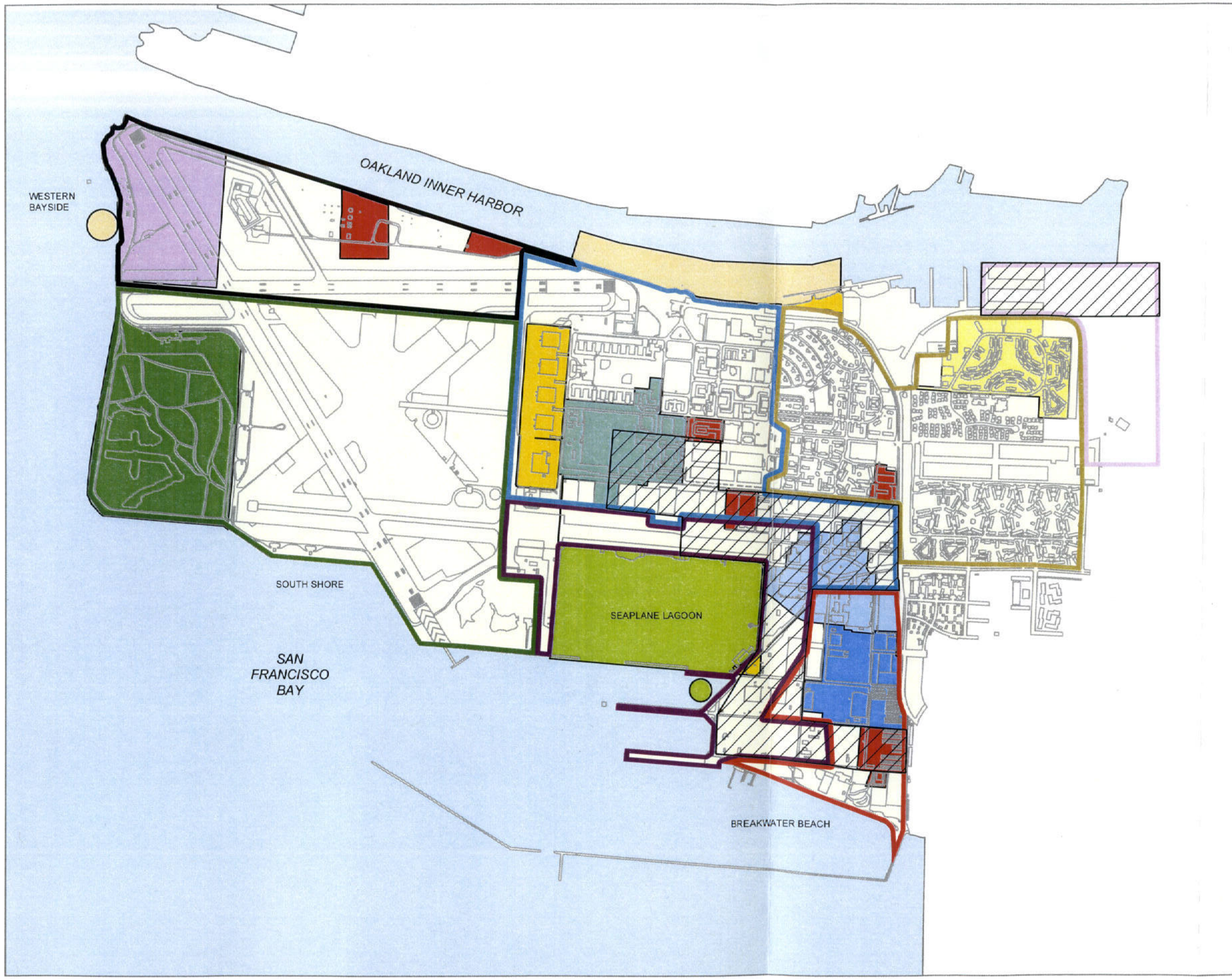

PLANNED REUSE

- Civic Core
- Inner Harbor
- Main Street Neighborhood
- Marina District
- North Waterfront
- Northwest Territories
- Wildlife Refuge
- HOUSING OPPORTUNITIES
- OPERABLE UNIT 1
- OPERABLE UNIT 2A
- OPERABLE UNIT 2B
- OPERABLE UNIT 2C
- OPERABLE UNIT 3
- OPERABLE UNIT 4A
- OPERABLE UNIT 4B
- OPERABLE UNIT 4C
- OPERABLE UNIT 5
- OPERABLE UNIT 6
- LAND COVER
- OPEN WATER

N

700 0 700 1400 Feet

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U.S. Navy Southwest Division, NAVFAC, San Diego

FIGURE F.3-3
PLANNED REUSE AREAS
Operable Unit 2B
Human Health Risk Assessment
Remedial Investigation Report

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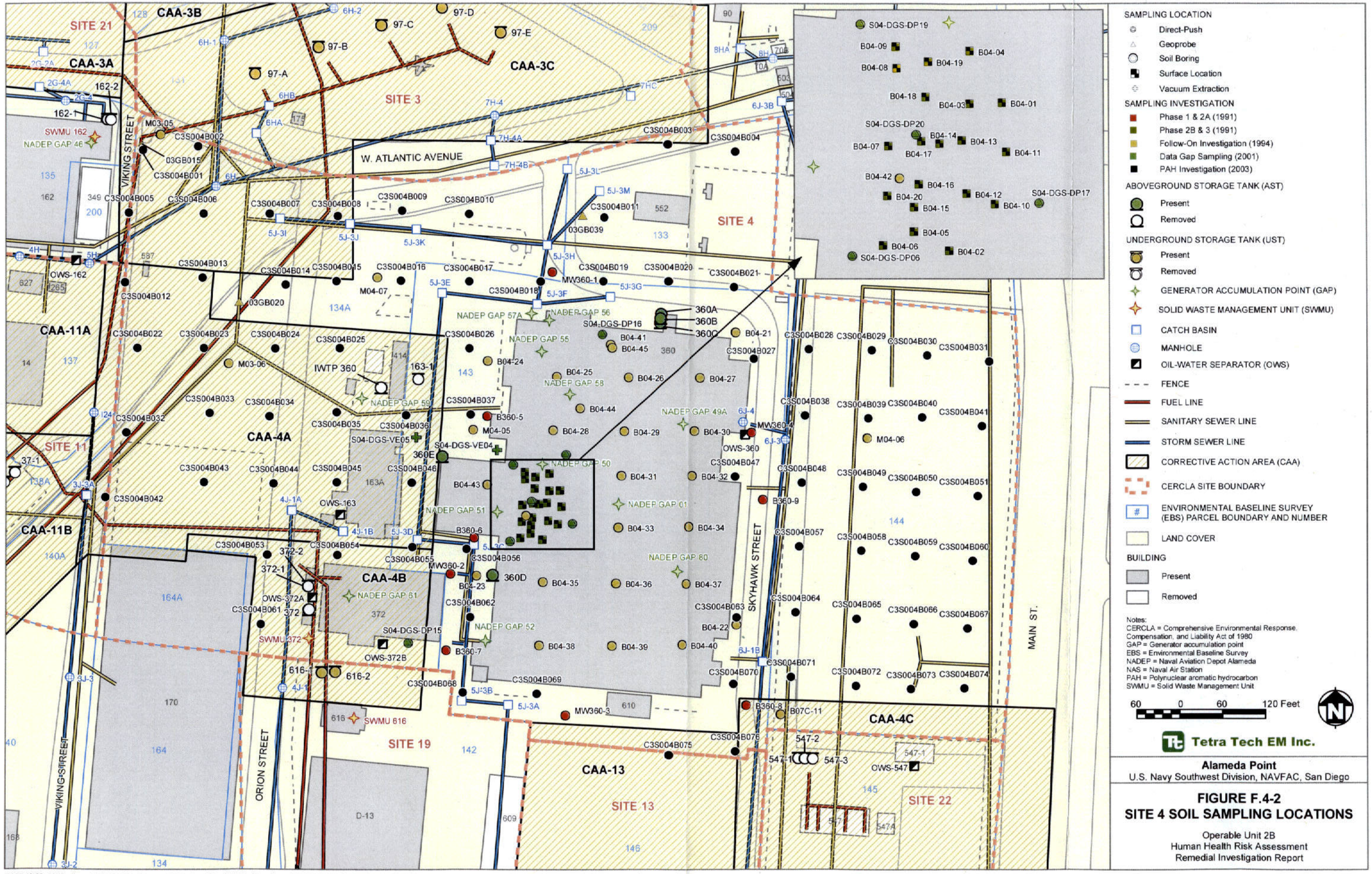

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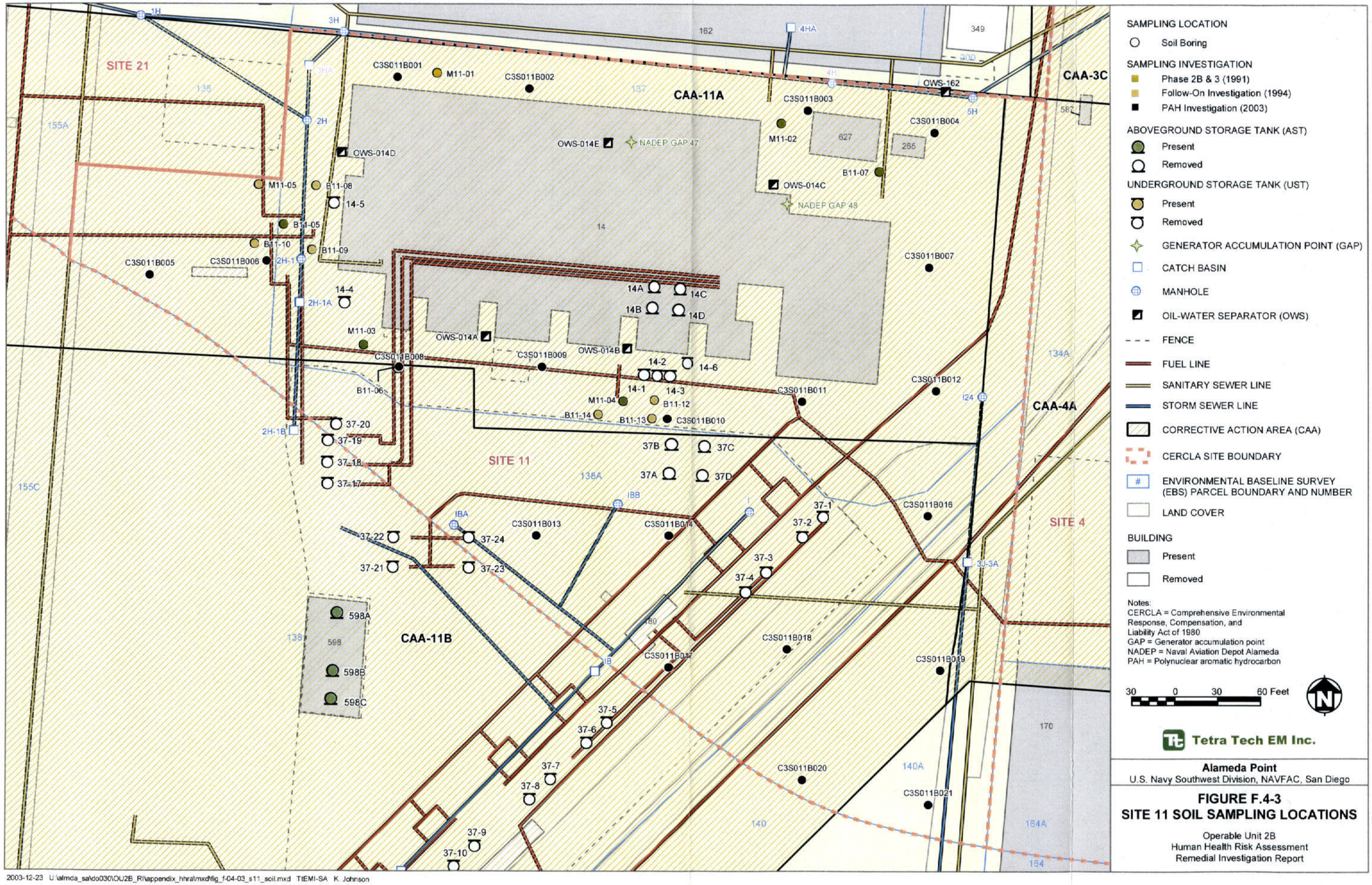

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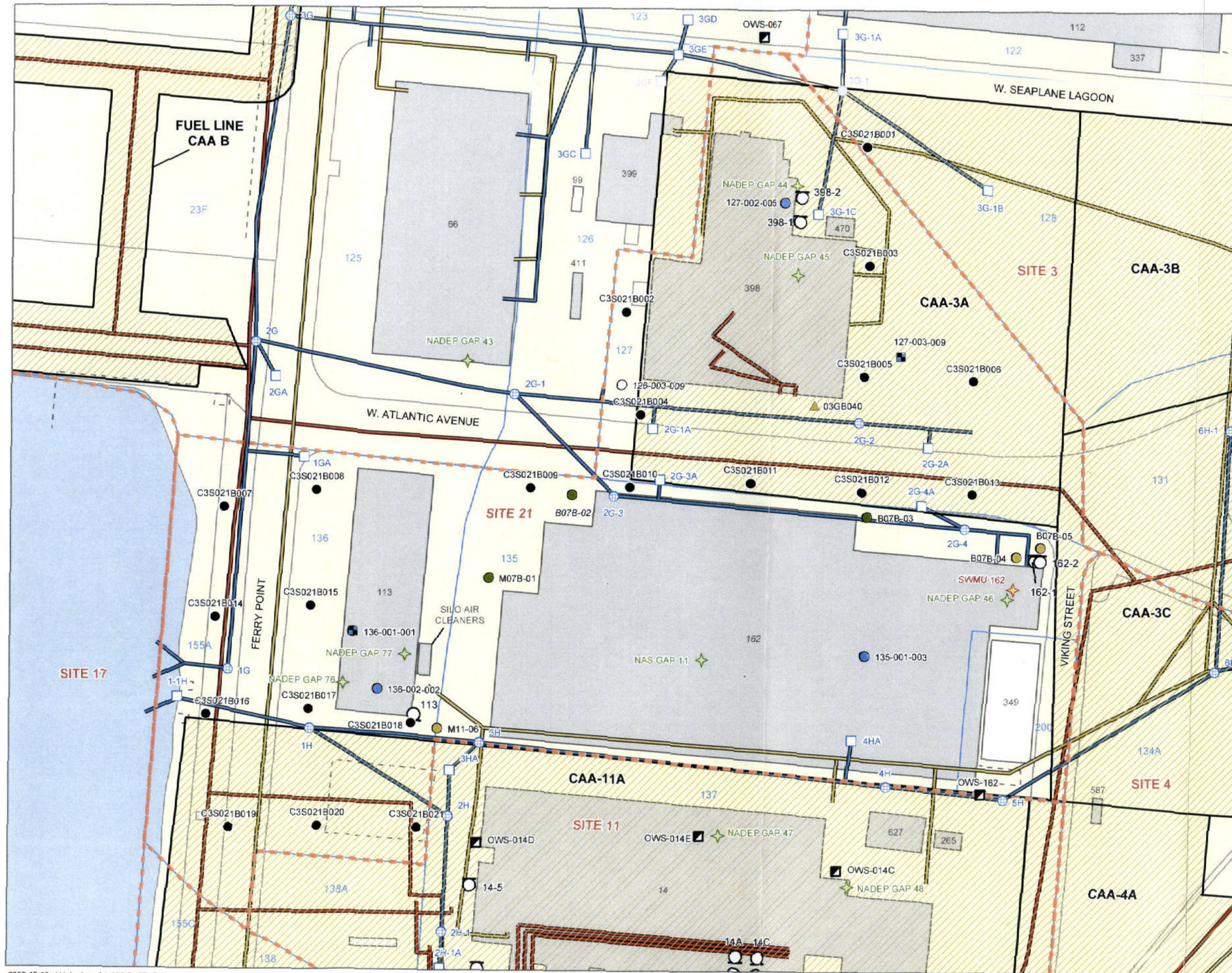

Alameda Point
U.S. Navy Southwest Division, NAVFAC, San Diego

FIGURE F.4-4
SITE 21 SOIL SAMPLING LOCATIONS

Operable Unit 2B
Human Health Risk Assessment
Remedial Investigation Report

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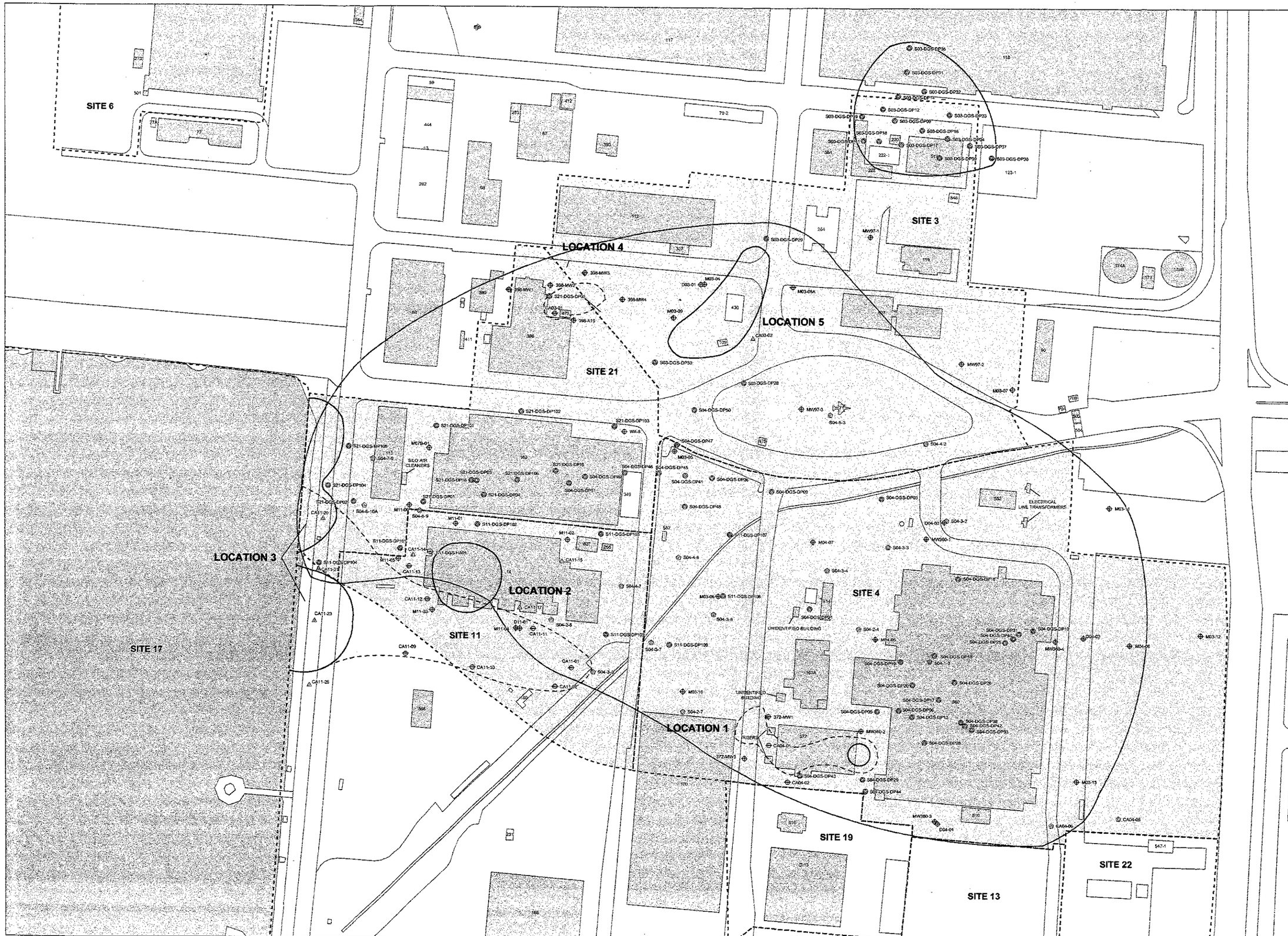

SAMPLING LOCATION

- Direct-Push
- Geoprobe
- Hand Auger
- Hydropunch
- Monitoring Well
- Piezometer

- PLUME 1
- PLUME 2
- CURRENT PLUME
- HISTORICAL PLUME
- CERCLA SITE

BUILDING

- Present
- Removed
- OPERABLE UNIT 2B
- LAND COVER

Note:
CERCLA = Comprehensive Environmental Response, Compensation, and Liability Act of 1980

50 0 50 100 Feet

Tetra Tech EM Inc.

Alameda Point
U.S. Navy Southwest Division, NAVFAC, San Diego

FIGURE F.4-5
OU-2B GROUNDWATER DOMESTIC USE SAMPLING LOCATIONS

Operable Unit 2B
Human Health Risk Assessment
Remedial Investigation Report

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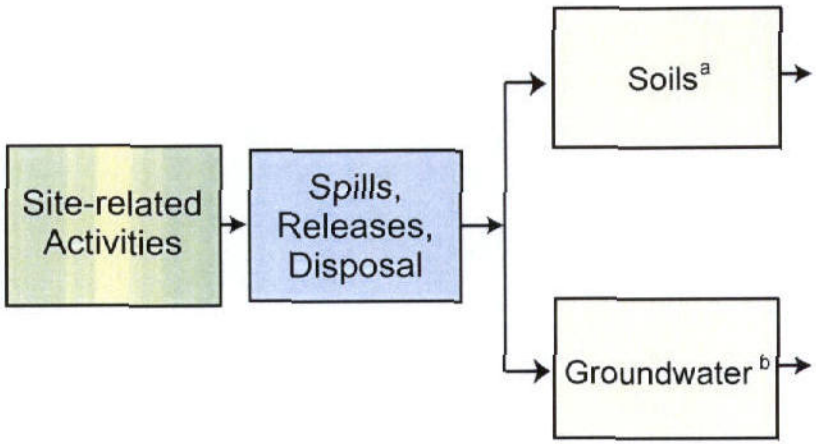

Exposure Pathways	Resident	Recreational User	Commercial/ Industrial Worker	Construction Worker
Soil Ingestion	●	●	●	●
Dermal Contact with Soil	●	●	●	●
Inhalation of Nonvolatiles Bound to Soil Particulates	●	●	●	●
Inhalation of Volatiles in Outdoor Air	●	●	●	●
Inhalation of Volatiles in Indoor Air	●	X	●	X
Home-grown Produce Consumption	●	X	X	X
Drinking Water	●	X	O	X
Dermal Contact during Bathing/Showering	●	X	X	X
Inhalation of Volatiles from Domestic Use	●	X	O	X
Dermal Contact during Construction	X	X	X	O
Inhalation of Volatiles in Indoor Air	●	X	●	X
Inhalation of Volatiles in Outdoor Air	O	X	O	●
Dermal Contact during Industrial Use or Irrigation	O	X	O	X

Notes

● Denotes a complete exposure pathway for that receptor.

O Potentially complete, but negligible.

X Incomplete pathway

a *Recreational exposure was not evaluated because it is not part of the reuse plan for OU-2B.*

b Groundwater assumed to be present at 8 feet bgs throughout base.

SulTech

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FIGURE F.5-1
CONCEPTUAL SITE MODEL
Operable Unit 2B
Human Health Risk Assessment
Remedial Investigation Report

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ALAMEDA POINT
SSIC NO. 5090.3

TABLES

FINAL OPERABLE UNIT 2B
REMEDIAL INVESTIGATION REPORT
SITES 3, 4, 11, AND 21

DATED 05 AUGUST 2005

TABLE F-1.1: SELECTION OF EXPOSURE PATHWAYS

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future	Surface Soil (0 to 2 feet bgs)	Soil	Surface Soil	Resident	Adult	Ingestion	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
						Dermal Absorption	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
					Child	Ingestion	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
						Dermal Absorption	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
				Recreational User	Adult	Ingestion	None	The recreational user exposure scenario is not complete under the reuse plan for OU-2B.
						Dermal Absorption	None	The recreational user exposure scenario is not complete under the reuse plan for OU-2B.
					Child	Ingestion	None	The recreational user exposure scenario is not complete under the reuse plan for OU-2B.
						Dermal Absorption	None	The recreational user exposure scenario is not complete under the reuse plan for OU-2B.
				Commercial/Industrial Worker	Adult	Ingestion	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
						Dermal Absorption	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
				Construction Worker	Adult	Ingestion	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
						Dermal Absorption	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
			Homegrown Produce	Resident	Adult	Ingestion	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
					Child	Ingestion	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
		Particulates	Respirable Particulates Suspended from Surface Soil	Resident	Adult	Inhalation	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
					Child	Inhalation	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
				Recreational User	Adult	Inhalation	None	The recreational user exposure scenario is not complete under the reuse plan for OU-2B.
					Child	Inhalation	None	The recreational user exposure scenario is not complete under the reuse plan for OU-2B.
				Commercial/Industrial Worker	Adult	Inhalation	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
				Construction Worker	Adult	Inhalation	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
		Vapors	Vapors from Surface Soil to Indoor Air	Resident	Adult	Inhalation	None	Concentrations of VOCs in soil are relatively low compared to concentrations of VOCs in groundwater; accordingly, the vapor intrusion pathway will be conducted based on groundwater concentrations.
					Child	Inhalation	None	Concentrations of VOCs in soil are relatively low compared to concentrations of VOCs in groundwater; accordingly, the vapor intrusion pathway will be conducted based on groundwater concentrations.

TABLE F-1.1: SELECTION OF EXPOSURE PATHWAYS

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future (Continued)	Surface Soil (0 to 2 feet bgs)	Vapors (Continued)	Vapors from Surface Soil to Indoor Air (Continued)	Commercial/Industrial Worker	Adult	Inhalation	None	Concentrations of VOCs in soil are relatively low compared to concentrations of VOCs in groundwater; accordingly, the vapor intrusion pathway will be conducted based on groundwater concentrations.
			Vapors from Surface Soil to Outdoor Air	Resident	Adult	Inhalation	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
					Child	Inhalation	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
				Commercial/Industrial Worker	Adult	Inhalation	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
				Recreational User	Adult	Inhalation	None	The recreational user exposure scenario is not complete under the reuse plan for OU-2B.
					Child	Inhalation	None	The recreational user exposure scenario is not complete under the reuse plan for OU-2B.
				Construction Worker	Adult	Inhalation	Quant.	Under a redevelopment scenario with minimal surface regrading, this exposure pathway would be complete.
	Subsurface Soil (0 to 8 feet bgs)	Soil	Subsurface Soil	Resident	Adult	Ingestion	Quant.	Residential reuse of Alameda Point will be addressed and assumes disturbance of subsurface soils during redevelopment.
						Dermal Absorption	Quant.	Residential reuse of Alameda Point will be addressed and assumes disturbance of subsurface soils during redevelopment.
					Child	Ingestion	Quant.	Residential reuse of Alameda Point will be addressed and assumes disturbance of subsurface soils during redevelopment.
						Dermal Absorption	Quant.	Residential reuse of Alameda Point will be addressed and assumes disturbance of subsurface soils during redevelopment.
				Commercial/Industrial Worker	Adult	Ingestion	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
						Dermal Absorption	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
				Construction Worker	Adult	Ingestion	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
						Dermal Absorption	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
			Homegrown Produce	Resident	Adult	Ingestion	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
					Child	Ingestion	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
		Particulates	Respirable Particulates Suspended from Subsurface Soil	Resident	Adult	Inhalation	Quant.	Residential reuse of Alameda Point will be addressed and assumes disturbance of subsurface soils during redevelopment.
					Child	Inhalation	Quant.	Residential reuse of Alameda Point will be addressed and assumes disturbance of subsurface soils during redevelopment.
				Commercial/Industrial Worker	Adult	Inhalation	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
				Construction Worker	Adult	Inhalation	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
		Vapors	Vapors from Subsurface Soil to Outdoor Air	Resident	Adult	Inhalation	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
					Child	Inhalation	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.

TABLE F-1.1: SELECTION OF EXPOSURE PATHWAYS

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future (Continued)	Subsurface Soil (0 to 8 feet bgs) (Continued)	Vapors (Continued)	Vapors from Subsurface Soil to Outdoor Air (Continued)	Commercial/Industrial Worker	Adult	Inhalation	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
				Construction Worker	Adult	Inhalation	Quant.	Various potential reuses of Alameda Point are addressed and assume disturbance of subsurface soils during redevelopment.
			Vapors from Subsurface Soil to Indoor Air	Resident	Adult	Inhalation	None	Concentrations of VOCs in soil are relatively low compared to concentrations of VOCs in groundwater; accordingly, the vapor intrusion pathway will be conducted based on groundwater concentrations.
					Child	Inhalation	None	As explained in the HHRAP text, inhalation toxicity factors are developed for chronic exposures and dosimetry is not adjusted for children's inhalation rates.
				Commercial/Industrial Worker	Adult	Inhalation	None	Concentrations of VOCs in soil are relatively low compared to concentrations of VOCs in groundwater; accordingly, the vapor intrusion pathway will be conducted based on groundwater concentrations.
	Groundwater	Groundwater	Tap Water from Shallow Groundwater	Resident	Adult	Ingestion	Quant.	Use of groundwater under hypothetical residential reuses of Alameda Point has no been ruled out; therefore, pathways associated with the use of groundwater from the site as tap water are considered potentially complete.
						Dermal Absorption During Bathing or Showering	Quant.	Use of groundwater under hypothetical residential reuses of Alameda Point has no been ruled out; therefore, pathways associated with the use of groundwater from the site as tap water are considered potentially complete.
					Child	Ingestion	Quant.	Use of groundwater under hypothetical residential reuses of Alameda Point has no been ruled out; therefore, pathways associated with the use of groundwater from the site as tap water are considered to be potentially complete.
						Dermal Absorption During Bathing or Showering	Quant.	Use of groundwater under hypothetical residential reuses of Alameda Point has no been ruled out; therefore, pathways associated with the use of groundwater from the site as tap water are considered to be potentially complete.
				Commercial/Industrial Worker	Adult	Ingestion	None	Use of groundwater for industrial purposes does not likely occur, and is not likely t occur in the future.
						Dermal Absorption	None	Use of groundwater for industrial purposes does not likely occur, and is not likely t occur in the future.
			Vapor Intrusion from Shallow Groundwater to Indoor Air	Resident	Adult	Inhalation	Quant.	The possibility exists for COPCs to migrate to indoor air on sites that overlie groundwater that contains NAPL or VOCs. The pathway will be evaluated on a case-by-case basis.
					Child	Inhalation	None	As explained in the HHRAP text, inhalation toxicity factors are developed for chronic exposures and dosimetry is not adjusted for children's inhalation rates.
				Commercial/Industrial Worker	Adult	Inhalation	Quant.	The possibility exists for COPCs to migrate to indoor air on parcels that overlie groundwater that contains NAPL or VOCs. The pathway will be evaluated on a case-by-case basis.

TABLE F-1.1: SELECTION OF EXPOSURE PATHWAYS

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe	Medium	Exposure Medium	Exposure Point	Receptor Population	Receptor Age	Exposure Route	Type of Analysis	Rationale for Selection or Exclusion of Exposure Pathway
Future (Continued)	Groundwater (Continued)	Groundwater (Continued)	Vapor Intrusion from Shallow Groundwater to Outdoor Air	Construction Worker	Adult	Inhalation	Quant.	The possibility exists for COPCs to migrate to outdoor air on parcels that overlie groundwater that contains NAPL or VOCs.
			Vapors from Use of Groundwater During Bath or Shower or Other Whole-House Use	Resident	Adult	Inhalation	Quant.	Use of groundwater under hypothetical residential reuses of Alameda Point has no been ruled out; therefore, pathways associated with the use of groundwater from the site as tap water are considered to be potentially complete and will be evaluated on a case-by-case basis.
					Child	Inhalation	Quant.	Use of groundwater under hypothetical residential reuses of Alameda Point has no been ruled out; therefore, pathways associated with the use of groundwater from the site as tap water are considered to be potentially complete and will be evaluated on a case-by-case basis.
			Groundwater Encountered During Construction	Construction Worker	Adult	Dermal Absorption	None	The potential exists that construction workers could come into contact with groundwater during excavation, trenching, or constuction activities; however, this pathway is not evaluated because such contacts would be avoided and would be short in duration relative to other pathways.
			Vapors from Industrial or Irrigation Use of Groundwater	Commercial/Industrial Worker	Adult	Inhalation	None	Use of groundwater for industrial purposes does not likely occur, and is not likely to occur in the future.

Notes:

bgs	Below ground surface
COPC	Chemical of potential concern
EPA	U.S. Environmental Protection Agency
HHRAP	Human health risk assessment protocol
NAPL	Nonaqueous phase liquid
None	Risks contributed by this pathway will not be quantitatively assessed in the human health risk assessment
Quant.	Quantitative; this scenario will not be quantitatively assessed in the human health risk assessment
VOC	Volatile organic compounds

TABLE F-2.1: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 3 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 feet bgs) at Site 3
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 3	91-57-6	2-Methylnaphthalene	2.20E-04	J	3.70E-01		mg/kg	C3S003B043	67	2.20E-04 - 1.89E-02	NA	--	NA	--	Yes	FD
	50-29-3	4,4'-DDT	7.40E-03	JP	1.50E-02		mg/kg	120-Z21-001	14	. - .	NA	--	NA	--	Yes	FD
	83-32-9	Acenaphthene	2.80E-04	J	2.60E+00		mg/kg	C3S003B043	50	2.20E-04 - 2.84E-02	NA	--	NA	--	Yes	FD
	208-96-8	Acenaphthylene	2.30E-04	J	4.80E-02		mg/kg	C3S003B049	68	1.70E-04 - 3.07E-02	NA	--	NA	--	Yes	FD
	67-64-1	Acetone	1.40E-01	J	1.40E-01	J	mg/kg	M03-04	20	1.10E-02 - 1.60E-02	NA	--	NA	--	Yes	FD
	5103-71-9	alpha-Chlordane	1.90E-03	JP	1.90E-03	JP	mg/kg	120-Z21-001	14	. - .	NA	--	NA	--	Yes	FD
	7429-90-5	Aluminum	3.38E+03		2.25E+04		mg/kg	116-Z21-004	100	5.60E+00 - 2.30E+01	NA	1,760 - 22,600	NA	--	Yes	FD
	120-12-7	Anthracene	2.10E-04	J	7.60E+00		mg/kg	C3S003B043	75	2.00E-04 - 2.60E-02	NA	--	NA	--	Yes	FD
	11096-82-5	Aroclor-1260	9.50E-03	J	5.20E+00		mg/kg	118-Z21-003	43	. - .	NA	--	NA	--	Yes	FD
	7440-38-2	Arsenic	9.60E-01	B	1.02E+01		mg/kg	118-Z21-002	47	5.20E-01 - 1.10E+01	NA	0.44 - 15.6	NA	--	Yes	FD
	7440-39-3	Barium	1.54E+01	B	2.33E+02		mg/kg	118-Z21-002	100	1.70E+00 - 2.30E+01	NA	6.9 - 156	NA	--	Yes	FD
	56-55-3	Benzo(a)anthracene	2.00E-04	J	1.40E+01		mg/kg	C3S003B043	86	1.40E-04 - 4.26E-02	NA	--	NA	--	Yes	FD
	50-32-8	Benzo(a)pyrene	3.80E-04	J	1.10E+01		mg/kg	C3S003B043	88	1.50E-04 - 3.31E-02	NA	--	NA	--	Yes	FD
	205-99-2	Benzo(b)fluoranthene	3.10E-04	J	1.10E+01		mg/kg	C3S003B043	88	1.50E-04 - 3.07E-02	NA	--	NA	--	Yes	FD
	191-24-2	Benzo(g,h,i)perylene	3.00E-04	J	4.10E+00	J	mg/kg	C3S003B043	93	1.10E-04 - 3.55E-02	NA	--	NA	--	Yes	FD
	207-08-9	Benzo(k)fluoranthene	2.40E-04	J	1.00E+01		mg/kg	C3S003B043	78	1.60E-04 - 4.26E-02	NA	--	NA	--	Yes	FD
	7440-41-7	Beryllium	2.80E-01	B	1.70E+00		mg/kg	CPT-S03-01	40	2.00E-01 - 1.10E+00	NA	0.25 - 1.47	NA	--	Yes	FD
	7440-43-9	Cadmium	6.00E-02	B	1.20E+00	B	mg/kg	118-Z21-002	20	6.00E-02 - 1.10E+00	NA	0.1 - 3.2	NA	--	Yes	FD
	7440-70-2	Calcium	1.90E+03		1.10E+05		mg/kg	116-Z21-004	100	3.60E+00 - 5.70E+02	NA	816 - 66,600	NA	--	No	NUT
	86-74-8	Carbazole	1.60E-01	J	1.60E-01	J	mg/kg	118-Z21-002	14	. - .	NA	--	NA	--	Yes	FD
	57-74-9	Chlordane	1.80E-01		1.80E-01		mg/kg	120-Z21-001	14	. - .	NA	--	NA	--	Yes	FD
	7440-47-3	Chromium	9.80E+00		4.17E+01	J	mg/kg	M03-07	93	8.00E-02 - 5.70E+00	NA	15.6 - 66.7	NA	--	Yes	FD
	218-01-9	Chrysene	3.60E-04	J	1.40E+01		mg/kg	C3S003B043	86	1.60E-04 - 4.02E-02	NA	--	NA	--	Yes	FD
	7440-48-4	Cobalt	3.60E+00	B	1.11E+01	J	mg/kg	M03-07	87	1.30E+00 - 5.70E+00	NA	3.0 - 49.7	NA	--	Yes	FD
	7440-50-8	Copper	4.90E+00	J	1.28E+02		mg/kg	118-Z21-002	100	4.00E-01 - 5.70E+00	NA	3.1 - 49.1	NA	--	Yes	FD
	53-70-3	Dibenzo(a,h)anthracene	3.30E-04	J	1.00E+00		mg/kg	C3S003B043	70	1.90E-04 - 3.31E-02	NA	--	NA	--	Yes	FD
	132-64-9	Dibenzofuran	2.10E-01	J	1.20E+00	J	mg/kg	118-Z21-002	9	3.60E-01 - 3.70E+00	NA	--	NA	--	Yes	FD
	84-66-2	Diethylphthalate	2.20E-02	J	2.20E-02	J	mg/kg	118-Z21-002	5	3.60E-01 - 3.70E+00	NA	--	NA	--	Yes	FD
	84-74-2	di-n-Butylphthalate	3.00E-02	J	1.30E-01	J	mg/kg	116-Z21-004	14	3.60E-01 - 3.70E+00	NA	--	NA	--	Yes	FD
	206-44-0	Fluoranthene	5.40E-04	J	3.80E+01		mg/kg	C3S003B043	85	1.80E-04 - 4.49E-02	NA	--	NA	--	Yes	FD
	86-73-7	Fluorene	1.90E-04	J	3.90E+00		mg/kg	C3S003B043	61	1.80E-04 - 2.40E-02	NA	--	NA	--	Yes	FD
	5103-74-2	gamma-Chlordane	2.00E-03	J	2.00E-03	J	mg/kg	120-Z21-001	14	. - .	NA	--	NA	--	Yes	FD

TABLE F-2.1: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 3 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 feet bgs) at Site 3
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 3	193-39-5	Indeno(1,2,3-cd)pyrene	5.60E-04	J	5.90E+00		mg/kg	C3S003B043	81	1.60E-04 - 4.73E-02	NA	--	NA	--	Yes	FD
	7439-89-6	Iron	6.84E+03	J	3.54E+04		mg/kg	116-Z21-004	100	1.30E+00 - 1.10E+01	NA	4,500 - 27,900	NA	--	Yes	FD
	7439-92-1	Lead	1.70E+00		5.11E+02	J	mg/kg	S03-DGS-DP15	85	1.70E-01 - 5.70E+00	NA	0.47 - 165	NA	--	Yes	FD
	7439-95-4	Magnesium	1.83E+03		6.77E+03		mg/kg	116-Z21-004	100	7.30E+00 - 5.70E+02	NA	1,290 - 8,800	NA	--	No	NUT
	7439-96-5	Manganese	7.61E+01		8.87E+02	J	mg/kg	CPT-S03-01	100	2.40E-01 - 5.70E+00	NA	55.5 - 748	NA	--	Yes	FD
	7439-97-6	Mercury	8.00E-02	B	1.10E+00		mg/kg	118-Z21-002	42	1.60E-01 - 2.40E-01	NA	0.057 - 2.71	NA	--	Yes	FD
	91-20-3	Naphthalene	2.60E-04	J	8.00E-01		mg/kg	C3S003B043	75	2.20E-04 - 2.40E-02	NA	--	NA	--	Yes	FD
	7440-02-0	Nickel	4.30E+00	B	4.82E+01		mg/kg	M03-07	93	1.90E+00 - 5.70E+00	NA	11.5 - 80.4	NA	--	Yes	FD
	86-30-6	n-Nitroso-diphenylamine	2.70E-02	J	2.70E-02	J	mg/kg	118-Z21-002	5	3.60E-01 - 3.70E+00	NA	--	NA	--	Yes	FD
	85-01-8	Phenanthrene	3.90E-04	J	3.20E+01		mg/kg	C3S003B043	82	1.60E-04 - 4.02E-02	NA	--	NA	--	Yes	FD
	9/7/7440	Potassium	2.13E+02	J	1.40E+03	J	mg/kg	M03-07	100	7.12E+01 - 5.70E+02	NA	209 - 2,480	NA	--	No	NUT
	129-00-0	Pyrene	9.30E-04	J	2.50E+01		mg/kg	C3S003B043	88	1.20E-04 - 3.78E-02	NA	--	NA	--	Yes	FD
	7440-22-4	Silver	4.50E-01	B	4.50E-01	B	mg/kg	118-Z21-002	7	1.80E-01 - 5.70E+00	NA	0.32 - 5.6	NA	--	Yes	FD
	7440-23-5	Sodium	9.07E+01	B	8.67E+02	J	mg/kg	M03-07	67	2.30E+00 - 5.70E+02	NA	62.6 - 1,580	NA	--	No	NUT
	7440-28-0	Thallium	1.10E+00	B	4.60E+00		mg/kg	129-002-004	33	4.40E-01 - 1.10E+01	NA	0.1 - 3.3	NA	--	Yes	FD
	7440-32-6	Titanium	3.50E+02		4.00E+02		mg/kg	MW97-3	100	5.40E+00 - 5.70E+00	NA	518	NA	--	Yes	FD
	7440-62-2	Vanadium	1.49E+01		5.74E+01		mg/kg	116-Z21-004	100	1.40E+00 - 5.70E+00	NA	10.5 - 55.3	NA	--	Yes	FD
	7440-66-6	Zinc	1.84E+01		5.12E+02		mg/kg	118-Z21-002	100	8.00E-01 - 5.70E+00	NA	10 - 191	NA	--	Yes	FD

Notes:

(1) Qualifier codes are as follows:

- B — Concentration reported below the CRDL but above the IDL (for inorganic analyses)
- J — Estimated concentration value
- P — Greater than 25% difference in detected concentrations between the primary column and the confirmation column

(2) NA - No chemicals were removed from further consideration based upon comparison to screening toxicity values.

(3) Background values were derived from statistical analysis of the background data set and are shown for comparison purposes only.

(4) Rationale for Selection or Deletion codes are as follows:

Selection Reason: Frequent Detection (FD)

Deletion Reason: Essential Nutrient (NUT)

Acronyms:

--	No value available
ARAR/TBC	Applicable or relevant and appropriate requirement/to be determined
CAS	Chemical Abstract Service
COPC	Chemical of potential concern
MG/KG	Milligram per kilogram
NA	Not applicable

TABLE F-2.2: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 3 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 3
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 3	105-67-9	2,4-Dimethylphenol	4.30E-02	J	4.30E-02	J	mg/kg	131-SS-001	2	3.70E-02 - 9.90E+00	NA	--	NA	--	Yes	FD
	78-93-3	2-Butanone	2.40E-01	J	2.40E-01	J	mg/kg	M03-07	2	1.00E-02 - 1.30E+01	NA	--	NA	--	Yes	FD
	91-57-6	2-Methylnaphthalene	2.20E-04	J	1.00E+01	J	mg/kg	C3S003B002	69	2.20E-04 - 2.32E-01	NA	--	NA	--	Yes	FD
	50-29-3	4,4'-DDT	7.40E-03	JP	1.50E-02		mg/kg	120-Z21-001	8	. - .	NA	--	NA	--	Yes	FD
	108-10-1	4-Methyl-2-pentanone	4.00E-03	J	4.50E-02		mg/kg	134-IW-001	8	5.00E-03 - 1.30E+01	NA	--	NA	--	Yes	FD
	83-32-9	Acenaphthene	2.80E-04	J	9.10E+00	J	mg/kg	C3S003B002	53	2.20E-04 - 3.48E-01	NA	--	NA	--	Yes	FD
	208-96-8	Acenaphthylene	2.30E-04	J	3.90E-01	J	mg/kg	C3S003B002	72	1.70E-04 - 3.77E-01	NA	--	NA	--	Yes	FD
	67-64-1	Acetone	6.60E-02		1.50E+00	DBJ	mg/kg	134-IW-001	15	1.00E-02 - 1.30E+01	NA	--	NA	--	Yes	FD
	5103-71-9	alpha-Chlordane	1.90E-03	JP	1.90E-03	JP	mg/kg	120-Z21-001	5	. - .	NA	--	NA	--	Yes	FD
	7429-90-5	Aluminum	3.13E+03		2.81E+04		mg/kg	116-Z21-005	100	1.20E+00 - 3.30E+01	NA	1,760 - 22,600	NA	--	Yes	FD
	120-12-7	Anthracene	2.10E-04	J	1.70E+01		mg/kg	C3S003B002	78	2.00E-04 - 3.19E-01	NA	--	NA	--	Yes	FD
	7440-36-0	Antimony	9.20E-01	J	5.00E+00	J	mg/kg	116-Z21-004	6	4.40E-01 - 9.90E+00	NA	0.7 - 8.6	NA	--	Yes	FD
	11096-82-5	Aroclor-1260	9.50E-03	J	5.20E+00		mg/kg	118-Z21-003	21	. - .	NA	--	NA	--	Yes	FD
	7440-38-2	Arsenic	9.60E-01	B	3.15E+01		mg/kg	116-Z21-004	58	2.90E-01 - 1.60E+01	NA	0.44 - 15.6	NA	--	Yes	FD
	7440-39-3	Barium	1.54E+01	B	1.06E+03		mg/kg	M03-07	98	1.90E-01 - 3.30E+01	NA	6.9 - 156	NA	--	Yes	FD
	71-43-2	Benzene	2.00E-03	J	1.20E+01		mg/kg	131-SS-001	16	5.60E-04 - 1.30E+01	NA	--	NA	--	Yes	FD
	56-55-3	Benzo(a)anthracene	2.00E-04	J	1.60E+01		mg/kg	C3S003B002	90	1.40E-04 - 5.23E-01	NA	--	NA	--	Yes	FD
	50-32-8	Benzo(a)pyrene	2.80E-04	J	1.40E+01		mg/kg	C3S003B002	93	1.50E-04 - 4.06E-01	NA	--	NA	--	Yes	FD
	205-99-2	Benzo(b)fluoranthene	3.10E-04	J	1.40E+01		mg/kg	C3S003B002	93	1.50E-04 - 3.77E-01	NA	--	NA	--	Yes	FD
	191-24-2	Benzo(g,h,i)perylene	3.00E-04	J	5.60E+00		mg/kg	C3S003B002	96	1.10E-04 - 4.35E-01	NA	--	NA	--	Yes	FD
	207-08-9	Benzo(k)fluoranthene	2.40E-04	J	1.00E+01		mg/kg	C3S003B043	84	1.60E-04 - 5.23E-01	NA	--	NA	--	Yes	FD
	7440-41-7	Beryllium	2.80E-01	B	1.90E+00		mg/kg	M03-07	33	2.40E-02 - 1.60E+00	NA	0.25 - 1.47	NA	--	Yes	FD
	117-81-7	bis(2-ethylhexyl)phthalate	1.90E-02	J	5.00E-02	J	mg/kg	129-001-001	10	1.40E-02 - 9.90E+00	NA	--	NA	--	Yes	FD
	7440-43-9	Cadmium	6.00E-02	B	1.30E+00	J	mg/kg	M03-07	20	4.70E-02 - 1.60E+00	NA	0.1 - 3.2	NA	--	Yes	FD
	7440-70-2	Calcium	1.28E+03		1.10E+05		mg/kg	116-Z21-004	100	3.60E+00 - 8.20E+02	NA	816 - 66,600	NA	--	No	NUT
	86-74-8	Carbazole	2.40E-02	J	1.60E-01	J	mg/kg	118-Z21-002	12	3.70E-02 - 1.50E-01	NA	--	NA	--	Yes	FD
	75-15-0	Carbon disulfide	1.00E-02	J	1.20E-02		mg/kg	129-002-005	8	5.00E-03 - 1.30E+01	NA	--	NA	--	Yes	FD
	57-74-9	Chlordane	1.80E-01		1.80E-01		mg/kg	120-Z21-001	14	. - .	NA	--	NA	--	Yes	FD
	7440-47-3	Chromium	7.00E+00		9.90E+01		mg/kg	116-Z21-005	90	8.00E-02 - 8.20E+00	NA	15.6 - 66.7	NA	--	Yes	FD
	218-01-9	Chrysene	2.50E-04	J	1.60E+01		mg/kg	C3S003B002	91	1.60E-04 - 4.94E-01	NA	--	NA	--	Yes	FD
	7440-48-4	Cobalt	3.20E+00	J	1.40E+01		mg/kg	MW97-2	87	9.80E-02 - 8.20E+00	NA	3.0 - 49.7	NA	--	Yes	FD
	7440-50-8	Copper	4.90E+00	J	2.43E+02		mg/kg	129-001-001	84	2.10E-01 - 8.20E+00	NA	3.1 - 49.1	NA	--	Yes	FD
	53-70-3	Dibenzo(a,h)anthracene	2.70E-04	J	1.40E+00	J	mg/kg	C3S003B002	75	1.90E-04 - 4.06E-01	NA	--	NA	--	Yes	FD

TABLE F-2.2: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 3 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 3
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 3	132-64-9	Dibenzofuran	1.20E-02	J	1.20E+00	J	mg/kg	118-Z21-002	7	3.70E-02 - 9.90E+00	NA	--	NA	--	Yes	FD
	84-66-2	Diethylphthalate	2.20E-02	J	2.20E-02	J	mg/kg	118-Z21-002	2	3.70E-02 - 9.90E+00	NA	--	NA	--	Yes	FD
	84-74-2	di-n-Butylphthalate	3.00E-02	J	1.30E-01	J	mg/kg	116-Z21-004	12	3.70E-02 - 9.90E+00	NA	--	NA	--	Yes	FD
	117-84-0	di-n-Octylphthalate	9.40E-02	J	9.40E-02	J	mg/kg	197-Z21-006	2	3.70E-02 - 9.90E+00	NA	--	NA	--	Yes	FD
	100-41-4	Ethylbenzene	1.10E-02		5.00E+01		mg/kg	M03-04	24	5.60E-04 - 1.30E+01	NA	--	NA	--	Yes	FD
	206-44-0	Fluoranthene	5.00E-04	J	3.80E+01		mg/kg	C3S003B043	89	1.80E-04 - 5.52E-01	NA	--	NA	--	Yes	FD
	86-73-7	Fluorene	1.90E-04	J	1.40E+01	J	mg/kg	C3S003B002	64	1.80E-04 - 2.90E-01	NA	--	NA	--	Yes	FD
	58-89-9	gamma-BHC (Lindane)	1.90E-03	JP	1.90E-03	JP	mg/kg	116-Z21-004	4	. - .	NA	--	NA	--	Yes	FD
	5103-74-2	gamma-Chlordane	2.00E-03	J	2.00E-03	J	mg/kg	120-Z21-001	5	. - .	NA	--	NA	--	Yes	FD
	193-39-5	Indeno(1,2,3-cd)pyrene	3.40E-04	J	5.90E+00		mg/kg	C3S003B043	88	1.60E-04 - 5.81E-01	NA	--	NA	--	Yes	FD
	7439-89-6	Iron	6.21E+03		3.97E+04		mg/kg	116-Z21-004	100	3.80E-01 - 1.60E+01	NA	4,500 - 27,900	NA	--	Yes	FD
	7439-92-1	Lead	1.40E+00		1.37E+04	J	mg/kg	S03-DGS-DP15	87	1.50E-01 - 8.20E+00	NA	0.47 - 165	NA	--	Yes	FD
	108383	m,p-Xylene	3.20E-02		4.00E+00		mg/kg	131-SS-001	43	2.00E-03 - 2.00E-03	NA	--	NA	--	Yes	FD
	7439-95-4	Magnesium	1.76E+03		1.15E+04		mg/kg	116-Z21-005	100	1.20E+00 - 8.20E+02	NA	1,290 - 8,800	NA	--	No	NUT
	7439-96-5	Manganese	5.77E+01		8.91E+02		mg/kg	116-Z21-005	100	8.20E-02 - 8.20E+00	NA	55.5 - 748	NA	--	Yes	FD
	7439-97-6	Mercury	7.00E-02	B	3.10E+00		mg/kg	129-003-008	32	6.10E-02 - 2.40E-01	NA	0.057 - 2.71	NA	--	Yes	FD
	1634-04-4	Methyl-T-Butyl-Ether	4.00E-03	J	4.00E-03	J	mg/kg	030-FLI-078	11	2.00E-03 - 3.00E-02	NA	--	NA	--	Yes	FD
	75-09-2	Methylene chloride	3.20E-02		9.40E-02		mg/kg	129-002-006	9	2.00E-03 - 1.30E+01	NA	--	NA	--	Yes	FD
	91-20-3	Naphthalene	2.60E-04	J	1.30E+01	J	mg/kg	C3S003B002	82	2.20E-04 - 2.90E-01	NA	--	NA	--	Yes	FD
	7440-02-0	Nickel	3.90E+00	B	8.40E+01		mg/kg	MW97-2	96	1.00E-01 - 8.20E+00	NA	11.5 - 80.4	NA	--	Yes	FD
	86-30-6	n-Nitroso-diphenylamine	2.70E-02	J	5.50E-01	J	mg/kg	116-Z21-006	3	3.70E-02 - 9.90E+00	NA	--	NA	--	Yes	FD
	95-47-6	o-Xylene	9.60E-03		4.00E+00		mg/kg	131-SS-001	17	2.00E-03 - 2.00E-03	NA	--	NA	--	Yes	FD
	85-01-8	Phenanthrene	3.40E-04	J	4.80E+01	J	mg/kg	C3S003B002	86	1.60E-04 - 4.94E-01	NA	--	NA	--	Yes	FD
	9/7/7440	Potassium	2.13E+02	J	4.84E+03		mg/kg	116-Z21-005	100	3.30E+00 - 8.20E+02	NA	209 - 2,480	NA	--	No	NUT
	129-00-0	Pyrene	9.30E-04	J	3.40E+01		mg/kg	C3S003B002	93	1.20E-04 - 4.64E-01	NA	--	NA	--	Yes	FD
	7440-22-4	Silver	2.40E-01	BNJ	2.40E+00	J	mg/kg	M03-07	6	5.80E-02 - 8.20E+00	NA	0.32 - 5.6	NA	--	Yes	FD
	7440-23-5	Sodium	6.63E+01	BJ	6.40E+03		mg/kg	MW97-2	71	2.30E+00 - 8.20E+02	NA	62.6 - 1,580	NA	--	No	NUT
	7440-28-0	Thallium	1.10E+00	B	4.60E+00		mg/kg	129-001-001	18	2.90E-01 - 1.60E+01	NA	0.1 - 3.3	NA	--	Yes	FD
	7440-32-6	Titanium	3.10E+02		6.70E+02		mg/kg	MW97-2	100	5.40E+00 - 8.20E+00	NA	518	NA	--	Yes	FD
	108-88-3	Toluene	2.00E-03	J	2.10E+02		mg/kg	M03-04	26	5.60E-04 - 1.30E+01	NA	--	NA	--	Yes	FD
	7440-62-2	Vanadium	1.40E+01		7.45E+01		mg/kg	116-Z21-005	100	7.10E-02 - 8.20E+00	NA	10.5 - 55.3	NA	--	Yes	FD
	1330-20-7	Xylene (Total)	2.00E-03	J	2.50E+02		mg/kg	M03-04	19	1.10E-03 - 1.30E+01	NA	--	NA	--	Yes	FD
	7440-66-6	Zinc	1.53E+01		1.26E+03		mg/kg	M03-07	94	1.10E-01 - 8.20E+00	NA	10 - 191	NA	--	Yes	FD

TABLE F-2.2: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 3 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 3
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)

Notes:

(1) Qualifier codes are as follows:

B	Concentration reported below the CRDL but above the IDL (for inorganic analyses)
D	Diluted sample
J	Estimated concentration value
N	Spiked sample recovery out of control limits
P	Greater than 25% difference in detected concentrations between the primary column and the confirmation column

(2) NA - No chemicals were removed from further consideration based upon comparison to screening toxicity values.

(3) Background values were derived from statistical analysis of the background data set and are shown for comparison purposes only.

(4) Rationale for Selection or Deletion codes are as follows:

Selection Reason:	Frequent Detection (FD)
Deletion Reason:	Essential Nutrient (NUT)

Acronyms:

–	No value available
ARAR/TBC	Applicable or relevant and appropriate requirement/to be determined
CAS	Chemical Abstract Service
COPC	Chemical of potential concern
MG/KG	Milligram per kilogram
NA	Not applicable

TABLE F-2.3: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 4 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 feet bgs) at Site 4
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 4	71-55-6	1,1,1-Trichloroethane	3.00E-03	J	6.00E-03	J	mg/kg	B04-24	7	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	79-34-5	1,1,2,2-Tetrachloroethane	9.00E-02	JN	9.20E-02	JN	mg/kg	144-001-008	7	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	75-35-4	1,1-Dichlorethene	1.00E-03	J	1.00E-03	J	mg/kg	B04-42	4	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	540-59-0	1,2-Dichloroethene (Total)	2.00E-03	J	2.00E-03	J	mg/kg	134-006-036	4	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	91-57-6	2-Methylnaphthalene	2.20E-04	J	2.40E-01		mg/kg	C3S004B004	51	2.20E-04 - 1.74E-02	NA	--	NA	--	Yes	FD
	72-54-8	4,4'-DDD	5.20E-03		9.30E-03	PJ	mg/kg	144-001-007	50	. - .	NA	--	NA	--	Yes	FD
	72-55-9	4,4'-DDE	5.50E-03		1.50E-02	J	mg/kg	144-001-008	67	. - .	NA	--	NA	--	Yes	FD
	50-29-3	4,4'-DDT	5.40E-03	J	3.20E-02	J	mg/kg	144-001-007	67	. - .	NA	--	NA	--	Yes	FD
	83-32-9	Acenaphthene	2.30E-04	J	2.90E-01		mg/kg	C3S004B004	24	2.20E-04 - 2.61E-02	NA	--	NA	--	Yes	FD
	208-96-8	Acenaphthylene	1.90E-04	J	2.80E-01		mg/kg	C3S004B004	50	1.70E-04 - 2.83E-02	NA	--	NA	--	Yes	FD
	67-64-1	Acetone	1.60E-02	J	1.60E-02	J	mg/kg	134-006-043	4	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	5103-71-9	alpha-Chlordane	4.80E-03	PJ	1.10E-02	PJ	mg/kg	144-001-007	33	. - .	NA	--	NA	--	Yes	FD
	7429-90-5	Aluminum	3.09E+03	J	1.00E+04		mg/kg	B04-21	100	1.70E+00 - 2.30E+01	NA	1,760 - 22,600	NA	--	Yes	FD
	120-12-7	Anthracene	2.10E-04	J	7.40E-01		mg/kg	C3S004B004	56	2.00E-04 - 2.39E-02	NA	--	NA	--	Yes	FD
	7440-36-0	Antimony	5.00E-01	J	4.60E+00		mg/kg	B04-05	19	4.00E-01 - 7.00E+00	NA	0.7 - 8.6	NA	--	Yes	FD
	11096-82-5	Aroclor-1260	1.70E-02	JP	3.80E-02		mg/kg	134-Z22-023	30	. - .	NA	--	NA	--	Yes	FD
	7440-38-2	Arsenic	8.00E-01	BWJ	6.90E+00		mg/kg	134-006-036	71	2.10E-01 - 1.20E+01	NA	0.44 - 15.6	NA	--	Yes	FD
	7440-39-3	Barium	2.30E+01	J	1.36E+02		mg/kg	B04-09	96	6.00E-02 - 2.30E+01	NA	6.9 - 156	NA	--	Yes	FD
	71-43-2	Benzene	1.00E-03	J	1.00E-03	J	mg/kg	134-006-032	4	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	56-55-3	Benzo(a)anthracene	1.70E-04	J	1.60E+00		mg/kg	C3S004B004	80	1.40E-04 - 3.91E-02	NA	--	NA	--	Yes	FD
	50-32-8	Benzo(a)pyrene	2.30E-04	J	1.50E+00		mg/kg	C3S004B004	84	1.50E-04 - 3.04E-02	NA	--	NA	--	Yes	FD
	205-99-2	Benzo(b)fluoranthene	2.40E-04	J	1.90E+00		mg/kg	C3S004B004	85	1.50E-04 - 2.83E-02	NA	--	NA	--	Yes	FD
	191-24-2	Benzo(g,h,i)perylene	2.80E-04	J	9.20E-01		mg/kg	C3S004B001	91	1.10E-04 - 3.26E-02	NA	--	NA	--	Yes	FD
	207-08-9	Benzo(k)fluoranthene	2.00E-04	J	5.30E-01		mg/kg	C3S004B076	71	1.60E-04 - 3.91E-02	NA	--	NA	--	Yes	FD
	7440-41-7	Beryllium	1.65E-01		7.70E-01	J	mg/kg	M03-05	33	4.20E-02 - 1.20E+00	NA	0.25 - 1.47	NA	--	Yes	FD
	117-81-7	bis(2-ethylhexyl)phthalate	2.30E-02	J	7.60E+00		mg/kg	B04-41	9	3.50E-02 - 3.80E+00	NA	--	NA	--	Yes	FD
	85-68-7	Butylbenzylphthalate	2.80E-02	J	4.50E-02	J	mg/kg	134-Z22-024	3	1.10E-01 - 3.80E+00	NA	--	NA	--	Yes	FD
	7440-43-9	Cadmium	6.00E-02	BJ	1.05E+02	J	mg/kg	B04-41	46	4.20E-02 - 1.20E+00	NA	0.1 - 3.2	NA	--	Yes	FD
	7440-70-2	Calcium	1.84E+03	J	1.61E+04	J	mg/kg	B04-17	100	9.83E-01 - 5.80E+02	NA	816 - 66,600	NA	--	No	NUT
	86-74-8	Carbazole	4.20E-02	J	4.20E-02	J	mg/kg	144-001-006	3	1.40E-01 - 3.60E+00	NA	--	NA	--	Yes	FD
	7440-47-3	Chromium	2.30E+01		1.53E+03		mg/kg	B04-41	92	8.00E-02 - 5.80E+00	NA	15.6 - 66.7	NA	--	Yes	FD
	18540-29-9	Chromium (VI)	7.60E-02		7.81E+00	J	mg/kg	B04-12	88	2.50E-02 - 2.83E-01	NA	--	NA	--	Yes	FD

TABLE F-2.3: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 4 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 feet bgs) at Site 4
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 4	218-01-9	Chrysene	2.40E-04	J	2.20E+00		mg/kg	C3S004B019	86	1.60E-04 - 3.70E-02	NA	--	NA	--	Yes	FD
	7440-48-4	Cobalt	1.90E+00	J	2.63E+01		mg/kg	B04-41	89	2.50E-01 - 5.80E+00	NA	3.0 - 49.7	NA	--	Yes	FD
	7440-50-8	Copper	4.40E+00		3.26E+02		mg/kg	B04-41	87	8.00E-02 - 5.80E+00	NA	3.1 - 49.1	NA	--	Yes	FD
	57-12-5	Cyanide	3.10E-01	J	1.86E+01	J	mg/kg	B04-16	18	2.20E-01 - 2.18E+00	NA	--	NA	--	Yes	FD
	53-70-3	Dibenzo(a,h)anthracene	2.10E-04	J	1.70E-01	J	mg/kg	C3S004B004	55	1.90E-04 - 3.04E-02	NA	--	NA	--	Yes	FD
	84-74-2	di-n-Butylphthalate	2.40E-02	J	8.00E-02	J	mg/kg	144-001-007	6	8.60E-02 - 3.80E+00	NA	--	NA	--	Yes	FD
	117-84-0	di-n-Octylphthalate	2.10E-02	J	2.10E-02	J	mg/kg	134-Z22-023	1	7.60E-02 - 3.80E+00	NA	--	NA	--	Yes	FD
	53494-70-5	Endrin Ketone	1.60E-02	PJ	1.60E-02	PJ	mg/kg	134-006-032	17	. - .	NA	--	NA	--	Yes	FD
	100-41-4	Ethylbenzene	1.00E-03	J	2.80E-02		mg/kg	B04-22	37	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	206-44-0	Fluoranthene	2.20E-04	J	3.90E+00	J	mg/kg	C3S004B004	84	1.80E-04 - 4.13E-02	NA	--	NA	--	Yes	FD
	86-73-7	Fluorene	1.90E-04	J	4.50E-01		mg/kg	C3S004B004	34	1.80E-04 - 2.20E-02	NA	--	NA	--	Yes	FD
	5103-74-2	gamma-Chlordane	3.70E-03		8.60E-03	J	mg/kg	144-001-007	33	. - .	NA	--	NA	--	Yes	FD
	193-39-5	Indeno(1,2,3-cd)pyrene	2.90E-04	J	8.50E-01		mg/kg	C3S004B001	80	1.60E-04 - 4.35E-02	NA	--	NA	--	Yes	FD
	7439-89-6	Iron	6.42E+03	J	2.26E+04	J	mg/kg	134-001-004	100	5.80E-01 - 1.20E+01	NA	4,500 - 27,900	NA	--	Yes	FD
	7439-92-1	Lead	2.15E+00	J	3.71E+02	J	mg/kg	B04-41	85	1.70E-01 - 1.10E+01	NA	0.47 - 165	NA	--	Yes	FD
	7439-95-4	Magnesium	1.84E+03		4.10E+03		mg/kg	B04-41	100	2.10E-01 - 5.80E+02	NA	1,290 - 8,800	NA	--	No	NUT
	7439-96-5	Manganese	8.00E+01		3.06E+02	J	mg/kg	B04-45	100	8.40E-02 - 5.80E+00	NA	55.5 - 748	NA	--	Yes	FD
	7439-97-6	Mercury	5.00E-02		2.80E-01		mg/kg	030-S07-042	22	5.00E-02 - 1.80E-01	NA	0.057 - 2.71	NA	--	Yes	FD
	75-09-2	Methylene chloride	3.00E-03	J	3.00E-03	J	mg/kg	134-006-037	4	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	7439-98-7	Molybdenum	7.20E-01	J	1.10E+00	J	mg/kg	B04-41	6	2.10E-01 - 5.80E+00	NA	--	NA	--	Yes	FD
	91-20-3	Naphthalene	2.60E-04	J	3.20E-01		mg/kg	C3S004B004	48	2.20E-04 - 2.20E-02	NA	--	NA	--	Yes	FD
	7440-02-0	Nickel	1.92E+01		1.40E+03		mg/kg	B04-41	98	3.80E-01 - 5.80E+00	NA	11.5 - 80.4	NA	--	Yes	FD
	621-64-7	n-Nitroso-di-n-propylamine	1.80E-01	J	1.80E-01	J	mg/kg	B04-45	1	1.10E-01 - 3.80E+00	NA	--	NA	--	Yes	FD
	86-30-6	n-Nitroso-diphenylamine	7.30E-02	J	3.20E-01	J	mg/kg	B04-25	3	8.60E-02 - 3.80E+00	NA	--	NA	--	Yes	FD
	87-86-5	Pentachlorophenol	1.30E-01	J	1.30E-01	J	mg/kg	B04-45	1	3.40E-01 - 1.90E+01	NA	--	NA	--	Yes	FD
	85-01-8	Phenanthrene	2.20E-04	J	4.10E+00		mg/kg	C3S004B004	79	1.60E-04 - 3.70E-02	NA	--	NA	--	Yes	FD
	108-95-2	Phenol	7.40E-02	J	7.40E-02	J	mg/kg	B04-41	1	1.40E-01 - 3.80E+00	NA	--	NA	--	Yes	FD
	9/7/7440	Potassium	4.79E+02	J	1.13E+03		mg/kg	B04-23	95	2.50E+00 - 5.80E+02	NA	209 - 2,480	NA	--	No	NUT
	129-00-0	Pyrene	2.30E-04	J	4.20E+00	J	mg/kg	C3S004B004	86	1.20E-04 - 3.48E-02	NA	--	NA	--	Yes	FD
	7782-49-2	Selenium	4.40E-01	J	1.20E+00		mg/kg	B04-41	11	2.13E-01 - 1.20E+01	NA	5.7 - 5.7	NA	--	Yes	FD
	7440-22-4	Silver	6.20E-01	B	8.11E+01	J	mg/kg	B04-41	40	8.40E-02 - 5.80E+00	NA	0.32 - 5.6	NA	--	Yes	FD
	7440-23-5	Sodium	1.07E+02	J	1.53E+03		mg/kg	B04-19	82	2.30E+00 - 5.80E+02	NA	62.6 - 1,580	NA	--	No	NUT

TABLE F-2.3: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 4 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 feet bgs) at Site 4
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 4	7440-28-0	Thallium	2.50E+00	2.50E+00	mg/kg	134-001-002	2	2.74E-01 - 1.20E+01	NA	0.1 - 3.3	NA	--	Yes	FD
	7440-32-6	Titanium	3.20E+02	7.29E+02	mg/kg	B360-5	100	2.00E-01 - 5.80E+00	NA	518	NA	--	Yes	FD
	108-88-3	Toluene	2.00E-03 J	4.00E-03 J	mg/kg	03GB039	11	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	79-01-6	Trichloroethene	2.00E-03 J	6.00E-03 J	mg/kg	134-006-036	7	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	7440-62-2	Vanadium	1.51E+01	3.50E+01	mg/kg	B04-41	95	8.40E-02 - 5.40E+01	NA	10.5 - 55.3	NA	--	Yes	FD
	1330-20-7	Xylene (Total)	1.00E-03 J	1.70E-01	mg/kg	B04-22	46	1.00E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	7440-66-6	Zinc	1.39E+01	2.83E+02	mg/kg	B04-41	98	1.00E-01 - 5.80E+00	NA	10 - 191	NA	--	Yes	FD

Notes:

(1) Qualifier codes are as follows:

- B — Concentration reported below the CRDL but above the IDL (for inorganic analyses)
- J — Estimated concentration value
- N — Spiked sample recovery out of control limits
- P — Greater than 25% difference in detected concentrations between the primary column and the confirmation column
- W

(2) NA - No chemicals were removed from further consideration based upon comparison to screening toxicity values.

(3) Background values were derived from statistical analysis of the background data set and are shown for comparison purposes only.

(4) Rationale for Selection or Deletion codes are as follows:

Selection Reason: Frequent Detection (FD)

Deletion Reason: Essential Nutrient (NUT)

Acronyms:

--	No value available
ARAR/TBC	Applicable or relevant and appropriate requirement/to be determined
CAS	Chemical Abstract Service
COPC	Chemical of potential concern
MG/KG	Milligram per kilogram
NA	Not applicable

TABLE F-2.4: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 4 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 4
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier)		Maximum Concentration (Qualifier)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (1)	Background Value (2)	Screening Toxicity Value (nc/ca) (3)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 4	71-55-6	1,1,1-Trichloroethane	2.00E-03	J	4.30E-02		mg/kg	MW360-2	5	1.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	79-34-5	1,1,2,2-Tetrachloroethane	9.00E-02	JN	6.00E-01	J	mg/kg	134-006-040	2	1.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	75-34-3	1,1-Dichlorethane	1.40E-02		1.40E-02		mg/kg	MW360-2	1	1.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	75-35-4	1,1-Dichlorethene	1.00E-03	J	1.40E+00		mg/kg	143-SS-005	3	1.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	95-50-1	1,2-Dichlorobenzene	2.00E-03	J	4.00E+00	J	mg/kg	143-IW-001	1	1.00E-03 - 3.90E+00	NA	--	NA	--	Yes	FD
	540-59-0	1,2-Dichloroethene (Total)	1.00E-03	J	4.70E+00		mg/kg	143-IW-001	5	5.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	106-46-7	1,4-Dichlorobenzene	8.10E-01	J	8.10E-01	J	mg/kg	143-IW-001	1	1.00E-03 - 3.90E+00	NA	--	NA	--	Yes	FD
	121-14-2	2,4-Dinitrotoluene	6.00E-02	J	6.00E-02	J	mg/kg	030-S07-041	1	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	591-78-6	2-Hexanone	6.60E+00	J	6.60E+00	J	mg/kg	030-S19-009	1	1.00E-02 - 2.40E+00	NA	--	NA	--	Yes	FD
	91-57-6	2-Methylnaphthalene	2.20E-04	J	3.00E-01		mg/kg	C3S004B043	54	2.20E-04 - 1.96E-02	NA	--	NA	--	Yes	FD
	91-94-1	3,3'-Dichlorobenzidine	8.90E-01	J	8.90E-01	J	mg/kg	030-S19-008	1	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	72-54-8	4,4'-DDD	1.50E-03	J	9.30E-03	PJ	mg/kg	144-001-007	25	3.90E-03 - 2.00E-02	NA	--	NA	--	Yes	FD
	72-55-9	4,4'-DDE	1.00E-03	JP	1.50E-02	J	mg/kg	144-001-008	25	3.90E-03 - 2.00E-02	NA	--	NA	--	Yes	FD
	50-29-3	4,4'-DDT	3.20E-03	J	3.20E-02	J	mg/kg	144-001-007	30	3.90E-03 - 2.00E-02	NA	--	NA	--	Yes	FD
	108-10-1	4-Methyl-2-pentanone	5.00E-03	J	1.90E+01		mg/kg	030-S19-009	2	5.40E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	83-32-9	Acenaphthene	2.30E-04	J	2.90E-01		mg/kg	C3S004B004	32	2.20E-04 - 2.94E-02	NA	--	NA	--	Yes	FD
	208-96-8	Acenaphthylene	1.90E-04	J	3.20E-01	J	mg/kg	C3S004B023	53	1.70E-04 - 3.19E-02	NA	--	NA	--	Yes	FD
	67-64-1	Acetone	3.00E-03	J	4.50E+00	J	mg/kg	134-006-040	8	1.00E-02 - 2.40E+00	NA	--	NA	--	Yes	FD
	319-84-6	alpha-BHC	1.00E-03	J	1.00E-03	J	mg/kg	030-S19-008	5	2.00E-03 - 1.00E-02	NA	--	NA	--	Yes	FD
	5103-71-9	alpha-Chlordane	2.40E-03	PJ	1.10E-02	PJ	mg/kg	144-001-007	15	2.00E-03 - 1.00E-02	NA	--	NA	--	Yes	FD
	7429-90-5	Aluminum	2.87E+03		1.45E+04		mg/kg	MW360-2	99	1.30E+00 - 2.60E+01	NA	1,760 - 22,600	NA	--	Yes	FD
	120-12-7	Anthracene	2.10E-04	J	2.30E+00	J	mg/kg	C3S004B023	60	2.00E-04 - 2.70E-02	NA	--	NA	--	Yes	FD
	7440-36-0	Antimony	4.30E-01	J	1.34E+02	J	mg/kg	B04-22	14	3.10E-01 - 9.00E+00	NA	0.7 - 8.6	NA	--	Yes	FD
	11097-69-1	Aroclor-1254	2.90E-02	JP	1.30E+00	PJ	mg/kg	134-SS-001	6	2.00E-02 - 2.00E-01	NA	--	NA	--	Yes	FD
	11096-82-5	Aroclor-1260	1.70E-02	JP	3.80E-02		mg/kg	134-Z22-023	12	2.00E-02 - 2.00E-01	NA	--	NA	--	Yes	FD
	7440-38-2	Arsenic	8.00E-01	BWJ	2.48E+01		mg/kg	M03-06	65	2.10E-01 - 1.30E+01	NA	0.44 - 15.6	NA	--	Yes	FD
	7440-39-3	Barium	2.30E+01	J	5.07E+02		mg/kg	030-S19-009	97	6.00E-02 - 2.60E+01	NA	6.9 - 156	NA	--	Yes	FD
	71-43-2	Benzene	1.00E-03	J	2.00E-01	J	mg/kg	134-006-040	3	5.40E-04 - 2.40E+00	NA	--	NA	--	Yes	FD
	56-55-3	Benzo(a)anthracene	1.50E-04	J	2.40E+00	J	mg/kg	C3S004B023	81	1.40E-04 - 4.41E-02	NA	--	NA	--	Yes	FD
	50-32-8	Benzo(a)pyrene	2.30E-04	J	3.10E+00	J	mg/kg	C3S004B023	84	1.50E-04 - 8.84E-02	NA	--	NA	--	Yes	FD
	205-99-2	Benzo(b)fluoranthene	2.30E-04	J	2.50E+00		mg/kg	C3S004B015	84	1.50E-04 - 8.21E-02	NA	--	NA	--	Yes	FD
	191-24-2	Benzo(g,h,i)perylene	2.80E-04	J	2.30E+00	J	mg/kg	C3S004B015	90	1.10E-04 - 3.68E-02	NA	--	NA	--	Yes	FD

TABLE F-2.4: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 4 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 4
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier)		Maximum Concentration (Qualifier)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (1)	Background Value (2)	Screening Toxicity Value (nc/ca) (3)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 4	207-08-9	Benzo(k)fluoranthene	1.70E-04	J	2.00E+00	J	mg/kg	C3S004B023	74	1.60E-04 - 4.41E-02	NA	--	NA	--	Yes	FD
	7440-41-7	Beryllium	4.10E-02	J	2.90E+00		mg/kg	134-IWPS2-001	28	1.00E-02 - 1.30E+00	NA	0.25 - 1.47	NA	--	Yes	FD
	319-85-7	Beta-BHC	3.50E-03	J	3.50E-03	J	mg/kg	030-S19-008	5	2.00E-03 - 1.00E-02	NA	--	NA	--	Yes	FD
	117-81-7	bis(2-ethylhexyl)phthalate	2.00E-02	J	7.60E+00		mg/kg	B04-41	9	1.40E-02 - 3.80E+00	NA	--	NA	--	Yes	FD
	85-68-7	Butylbenzylphthalate	2.80E-02	J	4.70E-02	J	mg/kg	134-004-015	2	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	7440-43-9	Cadmium	6.00E-02	BJ	1.05E+02	J	mg/kg	B04-41	36	1.50E-02 - 1.30E+00	NA	0.1 - 3.2	NA	--	Yes	FD
	7440-70-2	Calcium	9.80E+02		2.69E+05		mg/kg	030-S19-008	99	9.83E-01 - 6.40E+02	NA	816 - 66,600	NA	--	No	NUT
	86-74-8	Carbazole	3.70E-02	J	4.90E+00	J	mg/kg	030-S07-041	5	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	75-15-0	Carbon disulfide	6.00E-04	J	5.00E-03	J	mg/kg	B04-21	5	5.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	108-90-7	Chlorobenzene	2.00E-03	J	2.00E-03	J	mg/kg	134-IW-002	2	1.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	7440-47-3	Chromium	6.50E+00		1.53E+03		mg/kg	B04-41	83	7.00E-03 - 6.40E+00	NA	15.6 - 66.7	NA	--	Yes	FD
	18540-29-9	Chromium (VI)	7.60E-02		7.81E+00	J	mg/kg	B04-12	68	2.50E-02 - 2.83E-01	NA	--	NA	--	Yes	FD
	218-01-9	Chrysene	1.90E-04	J	3.10E+00	J	mg/kg	C3S004B023	84	1.60E-04 - 4.17E-02	NA	--	NA	--	Yes	FD
	156-59-2	cis-1,2-Dichloroethene	2.60E-01		7.40E+00		mg/kg	143-IW-001	10	1.00E-03 - 1.00E-03	NA	--	NA	--	Yes	FD
	7440-48-4	Cobalt	1.90E+00	J	2.63E+01		mg/kg	B04-41	84	1.00E-01 - 6.50E+00	NA	3.0 - 49.7	NA	--	Yes	FD
	7440-50-8	Copper	4.30E+00		3.26E+02		mg/kg	B04-41	81	8.00E-02 - 6.50E+00	NA	3.1 - 49.7	NA	--	Yes	FD
	57-12-5	Cyanide	3.10E-01	J	1.86E+01	J	mg/kg	B04-16	12	2.20E-01 - 2.30E+00	NA	--	NA	--	Yes	FD
	53-70-3	Dibenzo(a,h)anthracene	2.10E-04	J	3.60E-01	J	mg/kg	C3S004B015	58	1.90E-04 - 3.43E-02	NA	--	NA	--	Yes	FD
	132-64-9	Dibenzofuran	2.10E-02	J	1.80E+00		mg/kg	030-S07-041	4	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	60-57-1	Dieldrin	1.70E-03	J	1.70E-03	J	mg/kg	030-S19-008	5	3.90E-03 - 2.00E-02	NA	--	NA	--	Yes	FD
	84-66-2	Diethylphthalate	2.00E-02	J	2.50E-01	J	mg/kg	143-SN-002	3	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	84-74-2	di-n-Butylphthalate	2.40E-02	J	2.30E-01	J	mg/kg	134-SN-00[illegible]	7	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	117-84-0	di-n-Octylphthalate	2.10E-02	J	2.10E-02	J	mg/kg	134-Z22-023	1	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	53494-70-5	Endrin Ketone	1.60E-02	PJ	1.60E-02	PJ	mg/kg	134-006-032	5	3.90E-03 - 2.00E-02	NA	--	NA	--	Yes	FD
	100-41-4	Ethylbenzene	1.00E-03	J	8.10E+00		mg/kg	143-IW-001	22	5.40E-04 - 2.40E+00	NA	--	NA	--	Yes	FD
	206-44-0	Fluoranthene	2.20E-04	J	6.70E+00	J	mg/kg	C3S004B023	84	1.80E-04 - 1.20E-01	NA	--	NA	--	Yes	FD
	86-73-7	Fluorene	1.90E-04	J	6.00E-01	J	mg/kg	C3S004B023	40	1.80E-04 - 2.50E-02	NA	--	NA	--	Yes	FD
	5103-74-2	gamma-Chlordane	2.90E-03	PJ	8.60E-03	J	mg/kg	144-001-007	15	2.00E-03 - 1.00E-02	NA	--	NA	--	Yes	FD
	1024-57-3	Heptachlor Epoxide	2.60E-03	J	9.10E-03		mg/kg	030-S19-004	10	3.70E-04 - 1.00E-02	NA	--	NA	--	Yes	FD
	193-39-5	Indeno(1,2,3-cd)pyrene	2.90E-04	J	1.80E+00	J	mg/kg	C3S004B023	81	1.60E-04 - 4.90E-02	NA	--	NA	--	Yes	FD
	7439-89-6	Iron	1.03E+02		2.85E+04		mg/kg	030-S07-058	99	3.90E-01 - 1.30E+01	NA	4,500 - 27,900	NA	--	Yes	FD
	7439-92-1	Lead	1.60E+00		2.90E+03		mg/kg	CA04-03	73	1.00E-01 - 1.20E+03	NA	0.47 - 165	NA	--	Yes	FD

TABLE F-2.4: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 4 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 4
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier)		Maximum Concentration (Qualifier)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (1)	Background Value (2)	Screening Toxicity Value (nc/ca) (3)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 4	108383	m,p-Xylene	9.50E-01		9.30E+00		mg/kg	143-IW-001	11	1.00E-03 - 1.00E-03	NA	--	NA	--	Yes	FD
	7439-95-4	Magnesium	1.24E+03		1.17E+04		mg/kg	030-S19-008	99	2.10E-01 - 6.40E+02	NA	1,290 - 8,800	NA	--	No	NUT
	7439-96-5	Manganese	7.20E+01		8.64E+02		mg/kg	M04-07	99	4.00E-02 - 6.40E+00	NA	55.5 - 748	NA	--	Yes	FD
	7439-97-6	Mercury	5.00E-02		5.30E-01		mg/kg	M04-07	24	5.00E-02 - 2.00E-01	NA	0.057 - 2.71	NA	--	Yes	FD
	72-43-5	Methoxychlor	6.00E-03	J	8.30E-02	PJ	mg/kg	144-001-008	10	2.00E-02 - 1.00E-01	NA	--	NA	--	Yes	FD
	75-09-2	Methylene chloride	1.00E-03	J	2.10E+00	BJ	mg/kg	134-006-040	4	1.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	1634-04-4	Methyl-T-Butyl-Ether	4.00E-03	J	4.00E-03	J	mg/kg	030-FLI-077	12	1.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	7439-98-7	Molybdenum	6.50E-01	J	3.10E+00	J	mg/kg	M03-06	7	1.10E-01 - 6.50E+00	NA	--	NA	--	Yes	FD
	91-20-3	Naphthalene	2.60E-04	J	3.20E-01		mg/kg	C3S004B004	58	2.20E-04 - 2.50E-02	NA	--	NA	--	Yes	FD
	7440-02-0	Nickel	7.80E+00		1.40E+03		mg/kg	B04-41	98	8.40E-02 - 6.40E+00	NA	11.5 - 80.4	NA	--	Yes	FD
	621-64-7	n-Nitroso-di-n-propylamine	6.40E-02	J	1.80E-01	J	mg/kg	B04-45	1	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	86-30-6	n-Nitroso-diphenylamine	7.30E-02	J	3.20E-01	J	mg/kg	B04-25	2	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	95-47-6	o-Xylene	9.50E-01		4.70E+00		mg/kg	143-IW-001	10	1.00E-03 - 1.00E-03	NA	--	NA	--	Yes	FD
	87-86-5	Pentachlorophenol	1.30E-01	J	1.30E-01	J	mg/kg	B04-45	1	8.50E-02 - 1.90E+01	NA	--	NA	--	Yes	FD
	85-01-8	Phenanthrene	2.20E-04	J	6.30E+00	J	mg/kg	C3S004B023	80	1.60E-04 - 4.17E-02	NA	--	NA	--	Yes	FD
	108-95-2	Phenol	7.40E-02	J	7.40E-02	J	mg/kg	B04-41	1	3.50E-02 - 8.00E+00	NA	--	NA	--	Yes	FD
	9/7/7440	Potassium	3.86E+02	J	1.54E+03		mg/kg	M04-06	90	2.50E+00 - 6.40E+02	NA	209 - 2,480	NA	--	No	NUT
	129-00-0	Pyrene	2.00E-04	J	8.10E+00	J	mg/kg	C3S004B023	86	1.20E-04 - 1.01E-01	NA	--	NA	--	Yes	FD
	7782-49-2	Selenium	4.40E-01	J	9.60E+00	J	mg/kg	M04-07	12	2.00E-01 - 1.30E+01	NA	5.7 - 5.7	NA	--	Yes	FD
	7440-22-4	Silver	4.50E-01	B	8.11E+01	J	mg/kg	B04-41	23	5.60E-02 - 6.50E+00	NA	0.32 - 5.6	NA	--	Yes	FD
	7440-23-5	Sodium	4.45E+01	J	1.93E+03		mg/kg	030-S19-004	78	2.30E+00 - 6.40E+02	NA	62.6 - 1,580	NA	--	No	NUT
	7440-28-0	Thallium	1.20E-01	B	3.50E+00		mg/kg	030-S19-004	7	2.74E-01 - 1.30E+01	NA	0.1 - 3.3	NA	--	Yes	FD
	7440-32-6	Titanium	1.97E+02		7.29E+02		mg/kg	B360-5	100	2.00E-01 - 6.40E+00	NA	518	NA	--	Yes	FD
	108-88-3	Toluene	8.00E-04	J	7.10E-01	J	mg/kg	030-S19-009	18	5.40E-04 - 2.40E+00	NA	--	NA	--	Yes	FD
	79-01-6	Trichloroethene	2.00E-03	J	6.30E+00		mg/kg	143-SS-004	7	1.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	7440-62-2	Vanadium	1.21E+01		4.04E+01		mg/kg	B04-44	95	7.30E-02 - 5.40E+01	NA	10.5 - 55.3	NA	--	Yes	FD
	75-01-4	Vinyl chloride	2.90E-01		2.90E-01		mg/kg	143-IW-001	1	1.00E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	1330-20-7	Xylene (Total)	1.00E-03	J	1.40E+00	J	mg/kg	030-S19-009	32	1.10E-03 - 2.40E+00	NA	--	NA	--	Yes	FD
	7440-66-6	Zinc	1.36E+01		2.83E+02		mg/kg	B04-41	94	8.00E-02 - 3.52E+01	NA	10 - 191	NA	--	Yes	FD

TABLE F-2.4: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 4 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 4
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (1)	Background Value (2)	Screening Toxicity Value (nc/ca) (3)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)

Notes:

(1) Qualifier codes are as follows:

B	Concentration reported below the CRDL but above the IDL (for inorganic analyses)
D	Diluted sample
J	Estimated concentration value
N	Spiked sample recovery out of control limits
P	Greater than 25% difference in detected concentrations between the primary column and the confirmation column

(2) NA - No chemicals were removed from further consideration based upon comparison to screening toxicity values.

(3) Background values were derived from statistical analysis of the background data set and are shown for comparison purposes only.

(4) Rationale for Selection or Deletion codes are as follows:

Selection Reason:	Frequent Detection (FD)
Deletion Reason:	Essential Nutrient (NUT)

Acronyms:

--	No value available
ARAR/TBC	Applicable or relevant and appropriate requirement/to be determined
CAS	Chemical Abstract Service
COPC	Chemical of potential concern
MG/KG	Milligram per kilogram
NA	Not applicable

TABLE F-2.5: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 11 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 feet bgs) at Site 11
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 11	91-57-6	2-Methylnaphthalene	2.80E-04	J	6.10E-02		mg/kg	C3S011B012	57	2.20E-04 - 1.69E-02	NA	--	NA	--	Yes	FD
	108-10-1	4-Methyl-2-pentanone	4.50E+01		4.50E+01		mg/kg	030-S07-052	25	1.10E-02 - 1.10E+01	NA	--	NA	--	Yes	FD
	83-32-9	Acenaphthene	4.20E-04	J	4.20E-01		mg/kg	C3S011B012	45	2.20E-04 - 2.54E-02	NA	--	NA	--	Yes	FD
	208-96-8	Acenaphthylene	2.80E-04	J	6.80E-02		mg/kg	C3S011B020	35	1.70E-04 - 2.75E-02	NA	--	NA	--	Yes	FD
	7429-90-5	Aluminum	3.69E+03	J	2.59E+04		mg/kg	B11-11	95	2.80E+00 - 8.50E+00	NA	1,760 - 22,600	NA	--	Yes	FD
	120-12-7	Anthracene	2.50E-04	J	1.60E+00		mg/kg	C3S011B012	65	2.00E-04 - 2.33E-02	NA	--	NA	--	Yes	FD
	7440-36-0	Antimony	9.00E-01	J	2.60E+00		mg/kg	B11-07	15	4.10E-01 - 2.70E+00	NA	0.7 - 8.6	NA	--	Yes	FD
	11097-69-1	Aroclor-1254	3.00E-02		3.00E-02		mg/kg	138-Z17-013	50	. - .	NA	--	NA	--	Yes	FD
	11096-82-5	Aroclor-1260	2.30E-01		2.30E-01		mg/kg	138-Z17-013	50	. - .	NA	--	NA	--	Yes	FD
	7440-38-2	Arsenic	5.30E-01	J	4.20E+00		mg/kg	B11-08	90	2.10E-01 - 5.30E-01	NA	0.44 - 15.6	NA	--	Yes	FD
	7440-39-3	Barium	1.03E+01	J	7.34E+01	J	mg/kg	B11-08	95	9.00E-02 - 2.00E+00	NA	6.9 - 156	NA	--	Yes	FD
	56-55-3	Benzo(a)anthracene	3.40E-04	J	1.10E+01		mg/kg	C3S011B012	90	1.40E-04 - 1.92E-01	NA	--	NA	--	Yes	FD
	50-32-8	Benzo(a)pyrene	2.10E-03	J	4.70E+00		mg/kg	C3S011B012	95	1.50E-04 - 1.49E-01	NA	--	NA	--	Yes	FD
	205-99-2	Benzo(b)fluoranthene	3.00E-04	J	9.20E+00		mg/kg	C3S011B012	98	1.50E-04 - 1.38E-01	NA	--	NA	--	Yes	FD
	191-24-2	Benzo(g,h,i)perylene	7.90E-04	J	1.80E+00		mg/kg	C3S011B012	98	1.10E-04 - 3.17E-02	NA	--	NA	--	Yes	FD
	207-08-9	Benzo(k)fluoranthene	1.80E-04	J	2.30E+00		mg/kg	C3S011B012	88	1.60E-04 - 3.81E-02	NA	--	NA	--	Yes	FD
	7440-41-7	Beryllium	2.70E-01	B	1.80E+00		mg/kg	B11-09	80	4.30E-02 - 2.20E-01	NA	0.25 - 1.47	NA	--	Yes	FD
	7440-43-9	Cadmium	1.20E-01	J	4.32E+00		mg/kg	M11-01	50	4.30E-02 - 3.22E-01	NA	0.1 - 3.2	NA	--	Yes	FD
	7440-70-2	Calcium	1.78E+03	*J	2.87E+04		mg/kg	B11-11	95	1.05E+00 - 1.71E+01	NA	816 - 66,600	NA	--	No	NUT
	7440-47-3	Chromium	5.30E+00		6.98E+01		mg/kg	030-S07-052	90	8.00E-02 - 6.12E-01	NA	15.6 - 66.7	NA	--	Yes	FD
	218-01-9	Chrysene	4.50E-04	J	9.90E+00		mg/kg	C3S011B012	95	1.60E-04 - 1.81E-01	NA	--	NA	--	Yes	FD
	7440-48-4	Cobalt	4.10E+00	B	3.61E+01		mg/kg	M11-02	95	2.60E-01 - 1.30E+00	NA	3.0 - 49.7	NA	--	Yes	FD
	7440-50-8	Copper	5.50E+00		8.32E+01		mg/kg	B11-06	90	0.00E+00 - 8.00E-01	NA	3.1 - 49.1	NA	--	Yes	FD
	53-70-3	Dibenzo(a,h)anthracene	3.50E-04	J	7.00E-01		mg/kg	C3S011B012	65	1.90E-04 - 2.96E-02	NA	--	NA	--	Yes	FD
	206-44-0	Fluoranthene	6.00E-04	J	1.50E+01		mg/kg	C3S011B012	98	1.80E-04 - 2.02E-01	NA	--	NA	--	Yes	FD
	86-73-7	Fluorene	3.20E-04	J	4.30E-01		mg/kg	C3S011B012	42	1.80E-04 - 2.10E-02	NA	--	NA	--	Yes	FD
	193-39-5	Indeno(1,2,3-cd)pyrene	8.20E-04	J	1.50E+00		mg/kg	C3S011B012	82	1.60E-04 - 4.23E-02	NA	--	NA	--	Yes	FD
	7439-89-6	Iron	6.94E+03		3.22E+04		mg/kg	B11-11	95	6.19E-01 - 8.30E+00	NA	4,500 - 27,900	NA	--	Yes	FD
	7439-92-1	Lead	1.70E+00		2.42E+02		mg/kg	M11-03	91	2.04E-01 - 3.70E+00	NA	0.47 - 165	NA	--	Yes	FD
	7439-95-4	Magnesium	2.00E+03		1.51E+04		mg/kg	B11-11	95	2.10E-01 - 1.06E+01	NA	1,290 - 8,800	NA	--	No	NUT
	7439-96-5	Manganese	7.85E+01		5.58E+02		mg/kg	B11-11	95	9.00E-02 - 2.40E-01	NA	55.5 - 748	NA	--	Yes	FD
	7439-97-6	Mercury	1.22E-01		6.30E-01		mg/kg	B11-08	20	7.70E-02 - 2.52E-01	NA	0.057 - 2.71	NA	--	Yes	FD

TABLE F-2.5: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 11 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 feet bgs) at Site 11
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 11	91-20-3	Naphthalene	2.40E-04	J	5.00E-02		mg/kg	C3S011B012	68	2.20E-04 - 2.10E-02	NA	--	NA	--	Yes	FD
	7440-02-0	Nickel	1.55E+01		5.12E+01		mg/kg	B11-08	85	3.90E-01 - 3.30E+00	NA	11.5 - 80.4	NA	--	Yes	FD
	85-01-8	Phenanthrene	2.80E-04	J	8.20E+00		mg/kg	C3S011B012	90	1.60E-04 - 1.81E-01	NA	--	NA	--	Yes	FD
	9/7/7440	Potassium	1.76E+02	J	1.22E+03		mg/kg	B11-08	90	2.60E+00 - 1.40E+02	NA	209 - 2,480	NA	--	No	NUT
	129-00-0	Pyrene	5.60E-04	J	1.20E+01		mg/kg	C3S011B012	98	1.20E-04 - 1.70E-01	NA	--	NA	--	Yes	FD
	7782-49-2	Selenium	2.80E-01		2.80E-01		mg/kg	B11-05	5	1.93E-01 - 6.00E-01	NA	5.7 - 5.7	NA	--	Yes	FD
	7440-22-4	Silver	6.51E-01		8.24E-01		mg/kg	M11-04	15	8.60E-02 - 5.26E-01	NA	0.32 - 5.6	NA	--	Yes	FD
	7440-23-5	Sodium	8.56E+01	B	1.02E+03	J	mg/kg	B11-11	85	5.00E+00 - 2.88E+01	NA	62.6 - 1,580	NA	--	No	NUT
	7440-28-0	Thallium	2.10E+00		2.10E+00		mg/kg	138-001-001	5	2.48E-01 - 4.40E-01	NA	0.1 - 3.3	NA	--	Yes	FD
	7440-62-2	Vanadium	1.72E+01		8.25E+01		mg/kg	B11-11	95	8.60E-02 - 1.40E+00	NA	10.5 - 55.3	NA	--	Yes	FD
	7440-66-6	Zinc	1.44E+01		1.96E+02		mg/kg	M11-01	95	2.29E-01 - 8.00E-01	NA	10 - 191	NA	--	Yes	FD

Notes:

(1) Qualifier codes are as follows:

- B — Concentration reported below the CRDL but above the IDL (for inorganic analyses)
- D — Diluted sample
- J — Estimated concentration value
- N — Spiked sample recovery out of control limits
- P — Greater than 25% difference in detected concentrations between the primary column and the confirmation column

(2) NA - No chemicals were removed from further consideration based upon comparison to screening toxicity values.

(3) Background values were derived from statistical analysis of the background data set and are shown for comparison purposes only.

(4) Rationale for Selection or Deletion codes are as follows:

Selection Reason: Frequent Detection (FD)

Deletion Reason: Essential Nutrient (NUT)

Acronyms:

--	No value available
ARAR/TBC	Applicable or relevant and appropriate requirement/to be determined
CAS	Chemical Abstract Service
COPC	Chemical of potential concern
MG/KG	Milligram per kilogram
NA	Not applicable

TABLE F-2.6: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 11 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 11
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 11	105-67-9	2,4-Dimethylphenol	3.80E-02	J	3.80E-02	J	mg/kg	137-SN-002	2	3.50E-02 - 5.80E+00	NA	--	NA	--	Yes	FD
	91-57-6	2-Methylnaphthalene	2.80E-04	J	3.60E-01		mg/kg	C3S011B013	49	2.20E-04 - 1.74E-02	NA	--	NA	--	Yes	FD
	108-10-1	4-Methyl-2-pentanone	1.10E-02		4.50E+01		mg/kg	030-S07-052	4	0.00E+00 - 1.10E+01	NA	--	NA	--	Yes	FD
	83-32-9	Acenaphthene	2.70E-04	J	2.00E+00		mg/kg	C3S011B013	36	2.20E-04 - 2.62E-02	NA	--	NA	--	Yes	FD
	208-96-8	Acenaphthylene	1.80E-04	J	6.80E-02		mg/kg	C3S011B020	32	1.70E-04 - 2.84E-02	NA	--	NA	--	Yes	FD
	7429-90-5	Aluminum	3.15E+03		2.59E+04		mg/kg	B11-11	99	1.70E+00 - 8.50E+00	NA	1,760 - 22,600	NA	--	Yes	FD
	120-12-7	Anthracene	2.50E-04	J	5.30E+00		mg/kg	C3S011B013	57	2.00E-04 - 2.40E-02	NA	--	NA	--	Yes	FD
	7440-36-0	Antimony	5.00E-01	J	2.60E+00		mg/kg	B11-07	10	4.00E-01 - 2.90E+00	NA	0.7 - 8.6	NA	--	Yes	FD
	11097-69-1	Aroclor-1254	3.00E-02		3.00E-02		mg/kg	138-Z17-013	14	1.60E-02 - 1.80E-02	NA	--	NA	--	Yes	FD
	11096-82-5	Aroclor-1260	2.40E-02	J	2.30E-01		mg/kg	138-Z17-013	43	1.60E-02 - 1.80E-02	NA	--	NA	--	Yes	FD
	7440-38-2	Arsenic	5.30E-01	J	7.37E+00	J	mg/kg	B11-07	92	2.10E-01 - 5.90E-01	NA	0.44 - 15.6	NA	--	Yes	FD
	7440-39-3	Barium	1.03E+01	J	1.32E+02		mg/kg	030-S07-034	99	9.00E-02 - 2.00E+00	NA	6.9 - 156	NA	--	Yes	FD
	71-43-2	Benzene	1.20E-03		1.20E-03		mg/kg	030-MOD1-58	1	0.00E+00 - 1.10E+01	NA	--	NA	--	Yes	FD
	56-55-3	Benzo(a)anthracene	3.30E-04	J	1.90E+01		mg/kg	C3S011B013	78	1.40E-04 - 3.93E-01	NA	--	NA	--	Yes	FD
	50-32-8	Benzo(a)pyrene	3.50E-04	J	8.80E+00		mg/kg	C3S011B013	80	1.50E-04 - 3.05E-01	NA	--	NA	--	Yes	FD
	205-99-2	Benzo(b)fluoranthene	2.60E-04	J	1.70E+01		mg/kg	C3S011B013	82	1.50E-04 - 2.84E-01	NA	--	NA	--	Yes	FD
	191-24-2	Benzo(g,h,i)perylene	5.50E-04	J	2.90E+00		mg/kg	C3S011B013	81	1.10E-04 - 3.27E-02	NA	--	NA	--	Yes	FD
	207-08-9	Benzo(k)fluoranthene	1.80E-04	J	3.60E+00		mg/kg	C3S011B013	75	1.60E-04 - 3.93E-02	NA	--	NA	--	Yes	FD
	7440-41-7	Beryllium	9.00E-02	J	2.00E+00		mg/kg	B11-09	58	8.00E-03 - 2.30E-01	NA	0.25 - 1.47	NA	--	Yes	FD
	117-81-7	bis(2-ethylhexyl)phthalate	2.90E-02	J	6.20E-01		mg/kg	137-SN-004	10	1.40E-02 - 1.40E+00	NA	--	NA	--	Yes	FD
	7440-43-9	Cadmium	1.20E-01	J	4.32E+00		mg/kg	M11-01	13	2.00E-02 - 3.50E-01	NA	0.1 - 3.2	NA	--	Yes	FD
	7440-70-2	Calcium	1.38E+03		2.87E+04		mg/kg	B11-11	99	1.05E+00 - 4.24E+01	NA	816 - 66,600	NA	--	No	NUT
	86-74-8	Carbazole	5.00E-03	J	9.40E-01	J	mg/kg	030-S07-040	21	3.50E-02 - 3.60E+00	NA	--	NA	--	Yes	FD
	75-15-0	Carbon disulfide	2.00E-03	J	5.00E-03	J	mg/kg	030-MOD1-160	6	0.00E+00 - 1.10E+01	NA	--	NA	--	Yes	FD
	108-90-7	Chlorobenzene	2.00E-03	J	2.00E-03	J	mg/kg	030-MOD1-136	1	0.00E+00 - 1.10E+01	NA	--	NA	--	Yes	FD
	67-66-3	Chloroform	2.00E-03	J	2.00E-03	J	mg/kg	B11-10	1	0.00E+00 - 1.10E+01	NA	--	NA	--	Yes	FD
	7440-47-3	Chromium	5.30E+00		1.28E+02		mg/kg	030-S07-057	91	6.80E-02 - 6.64E-01	NA	15.6 - 66.7	NA	--	Yes	FD
	218-01-9	Chrysene	2.10E-04	J	1.50E+01		mg/kg	C3S011B013	82	1.60E-04 - 3.71E-01	NA	--	NA	--	Yes	FD
	7440-48-4	Cobalt	2.80E+00	J	3.61E+01		mg/kg	M11-02	99	1.50E-01 - 1.30E+00	NA	3.0 - 49.7	NA	--	Yes	FD
	7440-50-8	Copper	4.77E+00		8.32E+01		mg/kg	B11-06	87	0.00E+00 - 8.00E-01	NA	3.1 - 49.1	NA	--	Yes	FD
	53-70-3	Dibenzo(a,h)anthracene	2.20E-04	J	1.10E+00		mg/kg	C3S011B013	56	1.90E-04 - 3.05E-02	NA	--	NA	--	Yes	FD
	132-64-9	Dibenzofuran	9.00E-03	J	1.70E-01	J	mg/kg	030-S07-040	6	3.50E-02 - 3.60E+00	NA	--	NA	--	Yes	FD

TABLE F-2.6: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 11 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 11
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 11	84-74-2	di-n-Butylphthalate	2.80E-02	J	9.20E-02	J	mg/kg	135-SN-002	4	3.50E-02 - 3.60E+00	NA	--	NA	--	Yes	FD
	206-44-0	Fluoranthene	2.60E-04	J	3.00E+01		mg/kg	C3S011B013	85	1.80E-04 - 4.14E-01	NA	--	NA	--	Yes	FD
	86-73-7	Fluorene	2.70E-04	J	2.60E+00		mg/kg	C3S011B013	36	1.80E-04 - 2.20E-02	NA	--	NA	--	Yes	FD
	193-39-5	Indeno(1,2,3-cd)pyrene	8.20E-04	J	2.40E+00		mg/kg	C3S011B013	70	1.60E-04 - 4.36E-02	NA	--	NA	--	Yes	FD
	7439-89-6	Iron	6.43E+03		3.22E+04		mg/kg	B11-11	99	6.19E-01 - 8.50E+00	NA	4,500 - 27,900	NA	--	Yes	FD
	7439-92-1	Lead	7.75E-01	J	2.42E+02		mg/kg	M11-03	81	1.50E-01 - 1.20E+01	NA	0.47 - 165	NA	--	Yes	FD
	7439-95-4	Magnesium	1.78E+03		1.53E+04		mg/kg	030-S07-057	99	2.10E-01 - 1.75E+01	NA	1,290 - 8,800	NA	--	No	NUT
	7439-96-5	Manganese	6.06E+01		5.58E+02		mg/kg	B11-11	99	4.60E-02 - 2.50E-01	NA	55.5 - 748	NA	--	Yes	FD
	7439-97-6	Mercury	7.00E-02	J	6.30E-01		mg/kg	B11-08	20	5.00E-02 - 2.96E-01	NA	0.057 - 2.71	NA	--	Yes	FD
	75-09-2	Methylene chloride	2.10E-02	J	2.50E-02		mg/kg	138-001-002	3	0.00E+00 - 1.10E+01	NA	--	NA	--	Yes	FD
	1634-04-4	Methyl-T-Butyl-Ether	7.20E-02		7.20E-02		mg/kg	030-MOD1-58	4	6.00E-04 - 2.80E+01	NA	--	NA	--	Yes	FD
	7439-98-7	Molybdenum	8.70E-01	J	8.70E-01	J	mg/kg	030-MOD1-160	2	1.40E-01 - 4.40E+00	NA	--	NA	--	Yes	FD
	91-20-3	Naphthalene	2.20E-04	J	5.10E-01		mg/kg	C3S011B013	59	2.20E-04 - 2.20E-02	NA	--	NA	--	Yes	FD
	7440-02-0	Nickel	6.75E+00		1.20E+02		mg/kg	030-S07-057	95	1.60E-01 - 3.30E+00	NA	11.5 - 80.4	NA	--	Yes	FD
	85-01-8	Phenanthrene	1.90E-04	J	2.50E+01		mg/kg	C3S011B013	78	1.60E-04 - 3.71E-01	NA	--	NA	--	Yes	FD
	9/7/7440	Potassium	1.76E+02	J	1.80E+03		mg/kg	030-S07-057	94	2.50E+00 - 1.40E+02	NA	209 - 2,480	NA	--	No	NUT
	129-00-0	Pyrene	5.60E-04	J	2.70E+01		mg/kg	C3S011B013	81	1.20E-04 - 3.49E-01	NA	--	NA	--	Yes	FD
	7782-49-2	Selenium	2.80E-01		4.20E-01	J	mg/kg	030-S07-049	2	1.70E-01 - 6.50E-01	NA	5.7 - 5.7	NA	--	Yes	FD
	7440-22-4	Silver	6.51E-01		1.80E+00		mg/kg	030-S07-051	5	8.40E-02 - 5.71E-01	NA	0.32 - 5.6	NA	--	Yes	FD
	7440-23-5	Sodium	8.03E+01		1.02E+03	J	mg/kg	B11-11	56	5.00E+00 - 2.94E+01	NA	62.6 - 1,580	NA	--	No	NUT
	7440-28-0	Thallium	5.50E-01	J	2.60E+00		mg/kg	138-001-001	6	2.47E-01 - 5.70E-01	NA	0.1 - 3.3	NA	--	Yes	FD
	7440-62-2	Vanadium	1.41E+01		8.25E+01		mg/kg	B11-11	99	8.40E-02 - 1.40E+00	NA	10.5 - 55.3	NA	--	Yes	FD
	1330-20-7	Xylene (Total)	2.00E-03	J	2.00E-03	J	mg/kg	030-S07-028	2	0.00E+00 - 1.10E+01	NA	--	NA	--	Yes	FD
	7440-66-6	Zinc	1.44E+01		1.96E+02		mg/kg	M11-01	99	1.50E-01 - 8.00E-01	NA	10 - 191	NA	--	Yes	FD

TABLE F-2.6: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 11 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 11
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)	Maximum Concentration (Qualifier) (1)	Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)

Notes:

(1) Qualifier codes are as follows:

J Estimated concentration value

(2) NA - No chemicals were removed from further consideration based upon comparison to screening toxicity values.

(3) Background values were derived from statistical analysis of the background data set and are shown for comparison purposes only.

(4) Rationale for Selection or Deletion codes are as follows:

Selection Reason: Frequent Detection (FD)

Deletion Reason: Essential Nutrient (NUT)

Acronyms:

--	No value available
ARAR/TBC	Applicable or relevant and appropriate requirement/to be determined
CAS	Chemical Abstract Service
COPC	Chemical of potential concern
MG/KG	Milligram per kilogram
NA	Not applicable

TABLE F-2.7: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 21 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 feet bgs) at Site 21
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 21	91-57-6	2-Methylnaphthalene	2.60E-04	J	6.30E-02		mg/kg	C3S021B019	60	2.20E-04 - 1.60E-02	NA	--	NA	--	Yes	FD
	72-54-8	4,4'-DDD	1.20E-02	J	1.20E-02	J	mg/kg	B07B-05	20	3.40E-03 - 1.80E-02	NA	--	NA	--	Yes	FD
	50-29-3	4,4'-DDT	5.80E-02	J	5.80E-02	J	mg/kg	B07B-05	20	3.40E-03 - 1.80E-02	NA	--	NA	--	Yes	FD
	83-32-9	Acenaphthene	3.60E-04	J	1.00E-02		mg/kg	C3S021B019	14	2.20E-04 - 2.40E-02	NA	--	NA	--	Yes	FD
	208-96-8	Acenaphthylene	1.90E-04	J	2.10E-03	J	mg/kg	C3S021B003	26	1.70E-04 - 2.60E-02	NA	--	NA	--	Yes	FD
	67-64-1	Acetone	5.00E-03	J	5.00E-03	J	mg/kg	136-002-002	50	1.10E-02 - 1.10E-02	NA	--	NA	--	Yes	FD
	7429-90-5	Aluminum	4.23E+03		2.16E+04	J	mg/kg	M07B-01	100	3.10E+00 - 8.50E+00	NA	1,760 - 22,600	NA	--	Yes	FD
	120-12-7	Anthracene	2.20E-04	J	1.90E-02		mg/kg	C3S021B019	48	2.00E-04 - 2.20E-02	NA	--	NA	--	Yes	FD
	7440-36-0	Antimony	7.90E-01	JB	1.00E+01	BNJ	mg/kg	127-002-005	42	4.60E-01 - 2.60E+00	NA	0.7 - 8.6	NA	--	Yes	FD
	11096-82-5	Aroclor-1260	1.40E-01	J	1.40E-01	J	mg/kg	B07B-05	20	3.40E-02 - 1.80E-01	NA	--	NA	--	Yes	FD
	7440-38-2	Arsenic	1.20E+00	B	2.00E+01	NJ	mg/kg	127-002-005	75	2.71E-01 - 5.39E-01	NA	0.44 - 15.6	NA	--	Yes	FD
	7440-39-3	Barium	2.63E+01	B	4.43E+02		mg/kg	127-002-005	100	9.00E-02 - 2.00E+00	NA	6.9 - 156	NA	--	Yes	FD
	56-55-3	Benzo(a)anthracene	2.00E-04	J	8.40E-02		mg/kg	C3S021B019	81	1.40E-04 - 3.60E-02	NA	--	NA	--	Yes	FD
	50-32-8	Benzo(a)pyrene	1.00E-03	J	8.70E-02		mg/kg	C3S021B009	78	1.50E-04 - 1.60E-01	NA	--	NA	--	Yes	FD
	205-99-2	Benzo(b)fluoranthene	3.10E-04	J	8.50E-02		mg/kg	C3S021B019	88	1.50E-04 - 2.60E-02	NA	--	NA	--	Yes	FD
	191-24-2	Benzo(g,h,i)perylene	3.10E-04	J	1.30E-01		mg/kg	C3S021B017	93	1.10E-04 - 3.00E-02	NA	--	NA	--	Yes	FD
	207-08-9	Benzo(k)fluoranthene	6.10E-04	J	7.30E-02		mg/kg	C3S021B009	71	1.60E-04 - 3.60E-02	NA	--	NA	--	Yes	FD
	7440-41-7	Beryllium	2.10E-01	B	2.50E+00		mg/kg	B07B-05	83	1.30E-01 - 2.20E-01	NA	0.25 - 1.47	NA	--	Yes	FD
	117-81-7	bis(2-ethylhexyl)phthalate	5.20E-02	J	5.20E-02	J	mg/kg	136-001-001	8	5.40E-02 - 1.10E+00	NA	--	NA	--	Yes	FD
	7440-43-9	Cadmium	8.00E-02	B	9.50E+00		mg/kg	B07B-05	58	8.00E-02 - 3.10E-01	NA	0.1 - 3.2	NA	--	Yes	FD
	7440-70-2	Calcium	3.41E+02	B	1.73E+04	J	mg/kg	M07B-01	100	1.05E+00 - 4.00E+00	NA	816 - 66,600	NA	--	No	NUT
	7440-47-3	Chromium	1.13E+01	EJ	6.70E+01		mg/kg	B07B-05	100	8.00E-02 - 5.89E-01	NA	15.6 - 66.7	NA	--	Yes	FD
	218-01-9	Chrysene	3.30E-04	J	2.70E-01		mg/kg	C3S021B019	83	1.60E-04 - 3.40E-02	NA	--	NA	--	Yes	FD
	7440-48-4	Cobalt	3.90E+00	B	2.62E+01		mg/kg	127-002-005	100	6.11E-01 - 1.30E+00	NA	3.0 - 49.7	NA	--	Yes	FD
	7440-50-8	Copper	9.20E+00	*J	1.48E+02	*J	mg/kg	127-002-005	100	2.10E-01 - 8.00E-01	NA	3.1 - 49.1	NA	--	Yes	FD
	53-70-3	Dibenzo(a,h)anthracene	2.90E-04	J	2.80E-02		mg/kg	C3S021B019	52	1.90E-04 - 2.80E-02	NA	--	NA	--	Yes	FD
	84-74-2	di-n-Butylphthalate	2.90E-02	J	7.10E-02	J	mg/kg	127-002-005	17	7.50E-02 - 1.10E+00	NA	--	NA	--	Yes	FD
	206-44-0	Fluoranthene	2.50E-04	J	8.30E-02		mg/kg	C3S021B019	98	1.80E-04 - 3.80E-02	NA	--	NA	--	Yes	FD
	86-73-7	Fluorene	2.50E-04	J	7.70E-02		mg/kg	C3S021B019	19	1.80E-04 - 2.00E-02	NA	--	NA	--	Yes	FD
	193-39-5	Indeno(1,2,3-cd)pyrene	2.10E-04	J	1.30E-01		mg/kg	C3S021B017	76	1.60E-04 - 4.00E-02	NA	--	NA	--	Yes	FD
	7439-89-6	Iron	7.59E+03	J	4.68E+04	J	mg/kg	127-002-005	100	6.21E-01 - 1.30E+00	NA	4,500 - 27,900	NA	--	Yes	FD
	7439-92-1	Lead	1.40E+00	*J	4.16E+02		mg/kg	B07B-05	100	2.09E-01 - 3.53E+00	NA	0.47 - 165	NA	--	Yes	FD

TABLE F-2.7: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 21 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 feet bgs) at Site 21
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 21	7439-95-4	Magnesium	2.40E+03		1.13E+04		mg/kg	M11-06	100	4.00E+00 - 1.06E+01	NA	--	NA	--	No	NUT
	7439-96-5	Manganese	9.62E+01		1.19E+03	NJ	mg/kg	127-002-005	100	9.00E-02 - 2.40E-01	NA	--	NA	--	Yes	FD
	7439-97-6	Mercury	1.60E-01		2.60E+00		mg/kg	B07B-05	33	1.60E-01 - 2.69E-01	NA	--	NA	--	Yes	FD
	7439-98-7	Molybdenum	2.80E+00	B	2.80E+00	B	mg/kg	127-002-005	11	2.90E+00 - 2.90E+00	NA	--	NA	--	Yes	FD
	91-20-3	Naphthalene	2.90E-04	J	3.20E-02		mg/kg	C3S021B019	50	2.20E-04 - 2.00E-02	NA	--	NA	--	Yes	FD
	7440-02-0	Nickel	4.30E+00	B	5.06E+01		mg/kg	B07B-05	100	1.32E+00 - 3.30E+00	NA	--	NA	--	Yes	FD
	85-01-8	Phenanthrene	2.70E-04	J	1.60E-01		mg/kg	C3S021B019	83	1.60E-04 - 3.40E-02	NA	--	NA	--	Yes	FD
	9/7/7440	Potassium	4.61E+02		2.06E+03		mg/kg	B07B-05	100	5.73E+01 - 1.40E+02	NA	--	NA	--	No	NUT
	129-00-0	Pyrene	3.40E-04	J	1.40E-01		mg/kg	C3S021B019	88	1.20E-04 - 3.20E-02	NA	--	NA	--	Yes	FD
	7440-22-4	Silver	6.07E-01		5.64E+00		mg/kg	B07B-02	25	1.80E-01 - 5.06E-01	NA	--	NA	--	Yes	FD
	7440-23-5	Sodium	1.17E+02	J	9.32E+02	B	mg/kg	136-002-002	100	5.00E+00 - 6.17E+00	NA	--	NA	--	No	NUT
	7440-28-0	Thallium	9.00E-01	B	2.50E+00		mg/kg	127-003-009	33	2.80E-01 - 4.20E-01	NA	--	NA	--	Yes	FD
	7440-62-2	Vanadium	1.65E+01		9.66E+01		mg/kg	127-002-005	100	4.20E-01 - 1.40E+00	NA	--	NA	--	Yes	FD
	7440-66-6	Zinc	2.24E+01		2.67E+02		mg/kg	B07B-05	100	2.30E-01 - 8.00E-01	NA	--	NA	--	Yes	FD

Notes:

(1) Qualifier codes are as follows:

B	Concentration reported below the CRDL but above the IDL (for inorganic analyses)
D	Diluted sample
J	Estimated concentration value
N	Spiked sample recovery out of control limits
P	Greater than 25% difference in detected concentrations between the primary column and the confirmation column

(2) NA - No chemicals were removed from further consideration based upon comparison to screening toxicity values.

(3) Background values were derived from statistical analysis of the background data set and are shown for comparison purposes only.

(4) Rationale for Selection or Deletion codes are as follows:

Selection Reason:	Frequent Detection (FD)
Deletion Reason:	Essential Nutrient (NUT)

Acronyms:

--	No value available
ARAR/TBC	Applicable or relevant and appropriate requirement/to be determined
CAS	Chemical Abstract Service
COPC	Chemical of potential concern
MG/KG	Milligram per kilogram
NA	Not applicable

TABLE F-2.8: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 21 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 21
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 21	91-57-6	2-Methylnaphthalene	2.40E-04	J	6.30E-02		mg/kg	C3S021B019	68	2.20E-04 - 1.60E-02	NA	--	NA	--	Yes	FD
	72-54-8	4,4'-DDD	1.20E-02	J	1.20E-02	J	mg/kg	B07B-05	7	3.30E-03 - 1.80E-02	NA	--	NA	--	Yes	FD
	50-29-3	4,4'-DDT	5.80E-02	J	5.80E-02	J	mg/kg	B07B-05	7	3.30E-03 - 1.80E-02	NA	--	NA	--	Yes	FD
	101-55-3	4-Bromophenyl-phenylether	2.00E-02	J	2.00E-02	J	mg/kg	136-001-001	2	3.60E-02 - 1.40E+01	NA	--	NA	--	Yes	FD
	7005-72-3	4-Chlorophenyl-phenylether	2.90E-02	J	2.90E-02	J	mg/kg	136-001-001	2	3.60E-02 - 1.40E+01	NA	--	NA	--	Yes	FD
	108-10-1	4-Methyl-2-pentanone	1.60E-01		1.60E-01		mg/kg	030-S07-065	3	1.00E-02 - 1.40E-02	NA	--	NA	--	Yes	FD
	83-32-9	Acenaphthene	2.80E-04	J	1.00E-02		mg/kg	C3S021B019	19	2.20E-04 - 2.40E-02	NA	--	NA	--	Yes	FD
	208-96-8	Acenaphthylene	1.90E-04	J	5.80E-03	J	mg/kg	C3S021B015	31	1.70E-04 - 2.60E-02	NA	--	NA	--	Yes	FD
	67-64-1	Acetone	5.00E-03	J	1.20E-02	J	mg/kg	135-002-005	5	1.00E-02 - 1.40E-02	NA	--	NA	--	Yes	FD
	7429-90-5	Aluminum	3.41E+03		2.16E+04	J	mg/kg	M07B-01	97	1.20E+00 - 8.50E+00	NA	--	NA	--	Yes	FD
	120-12-7	Anthracene	2.20E-04	J	1.90E-02		mg/kg	C3S021B019	49	2.00E-04 - 2.20E-02	NA	--	NA	--	Yes	FD
	7440-36-0	Antimony	7.90E-01	JB	1.00E+01	BNJ	mg/kg	127-002-005	13	4.00E-01 - 2.70E+00	NA	--	NA	--	Yes	FD
	11096-82-5	Aroclor-1260	1.40E-01	J	1.40E-01	J	mg/kg	B07B-05	7	3.30E-02 - 1.80E-01	NA	--	NA	--	Yes	FD
	7440-38-2	Arsenic	1.20E+00	B	2.00E+01	NJ	mg/kg	127-002-005	84	2.10E-01 - 5.39E-01	NA	--	NA	--	Yes	FD
	7440-39-3	Barium	1.81E+01	B	4.43E+02		mg/kg	127-002-005	97	8.80E-02 - 2.00E+00	NA	--	NA	--	Yes	FD
	56-55-3	Benzo(a)anthracene	2.00E-04	J	8.40E-02		mg/kg	C3S021B019	81	1.40E-04 - 3.60E-02	NA	--	NA	--	Yes	FD
	50-32-8	Benzo(a)pyrene	4.10E-04	J	1.30E-01		mg/kg	C3S021B015	83	1.50E-04 - 2.80E-02	NA	--	NA	--	Yes	FD
	205-99-2	Benzo(b)fluoranthene	3.10E-04	J	1.50E-01		mg/kg	C3S021B015	89	1.50E-04 - 2.60E-02	NA	--	NA	--	Yes	FD
	191-24-2	Benzo(g,h,i)perylene	3.10E-04	J	1.50E-01		mg/kg	C3S021B015	87	1.10E-04 - 3.00E-02	NA	--	NA	--	Yes	FD
	207-08-9	Benzo(k)fluoranthene	3.00E-04	J	7.30E-02		mg/kg	C3S021B009	74	1.60E-04 - 3.60E-02	NA	--	NA	--	Yes	FD
	7440-41-7	Beryllium	1.70E-01	BJ	2.50E+00		mg/kg	B07B-05	59	2.40E-02 - 2.30E-01	NA	--	NA	--	Yes	FD
	117-81-7	bis(2-ethylhexyl)phthalate	2.50E-02	J	9.60E-02	J	mg/kg	127-002-005	10	1.40E-02 - 5.40E+00	NA	--	NA	--	Yes	FD
	7440-43-9	Cadmium	7.00E-02	B	9.50E+00		mg/kg	B07B-05	26	4.20E-02 - 3.28E-01	NA	--	NA	--	Yes	FD
	7440-70-2	Calcium	3.41E+02	B	1.73E+04	J	mg/kg	M07B-01	97	1.02E+00 - 2.22E+01	NA	--	NA	--	No	NUT
	86-74-8	Carbazole	1.00E-02	J	2.00E+01		mg/kg	030-S07-004	25	3.60E-02 - 1.40E+01	NA	--	NA	--	Yes	FD
	75-15-0	Carbon disulfide	2.00E-03	J	2.00E-03	J	mg/kg	030-S07-004	3	5.20E-03 - 1.40E-02	NA	--	NA	--	Yes	FD
	67-66-3	Chloroform	5.40E-03	J	5.40E-03	J	mg/kg	127-001-003	3	5.20E-03 - 1.40E-02	NA	--	NA	--	Yes	FD
	7440-47-3	Chromium	1.13E+01	EJ	6.70E+01		mg/kg	B07B-05	95	8.00E-02 - 6.23E-01	NA	--	NA	--	Yes	FD
	218-01-9	Chrysene	1.70E-04	J	2.70E-01		mg/kg	C3S021B019	86	1.60E-04 - 3.40E-02	NA	--	NA	--	Yes	FD
	7440-48-4	Cobalt	2.90E+00	J	2.62E+01		mg/kg	127-002-005	97	9.50E-02 - 1.30E+00	NA	--	NA	--	Yes	FD
	7440-50-8	Copper	5.40E+00		1.48E+02	*J	mg/kg	127-002-005	95	1.00E-01 - 8.00E-01	NA	--	NA	--	Yes	FD
	53-70-3	Dibenzo(a,h)anthracene	2.90E-04	J	2.80E-02		mg/kg	C3S021B019	50	1.90E-04 - 2.80E-02	NA	--	NA	--	Yes	FD
	132-64-9	Dibenzofuran	1.80E-02	J	3.90E+00	J	mg/kg	030-S07-004	12	3.60E-02 - 1.40E+01	NA	--	NA	--	Yes	FD

TABLE F-2.8: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, SITE 21 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 feet bgs) at Site 21
Exposure Medium:	Soil

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Site 21	84-66-2	Diethylphthalate	5.60E-02	J	5.60E-02	J	mg/kg	136-001-001	2	3.60E-02 - 1.40E+01	NA	--	NA	--	Yes	FD
	131-11-3	Dimethylphthalate	7.30E-02	J	7.30E-02	J	mg/kg	136-001-001	2	3.60E-02 - 1.40E+01	NA	--	NA	--	Yes	FD
	84-74-2	di-n-Butylphthalate	2.90E-02	J	8.00E-02	J	mg/kg	136-001-001	12	3.60E-02 - 1.40E+01	NA	--	NA	--	Yes	FD
	100-41-4	Ethylbenzene	2.10E-02		2.10E-02		mg/kg	136-001-001	2	5.20E-03 - 1.40E-02	NA	--	NA	--	Yes	FD
	206-44-0	Fluoranthene	2.50E-04	J	1.70E-01		mg/kg	C3S021B008	95	1.80E-04 - 3.80E-02	NA	--	NA	--	Yes	FD
	86-73-7	Fluorene	2.20E-04	J	7.70E-02		mg/kg	C3S021B019	24	1.80E-04 - 2.00E-02	NA	--	NA	--	Yes	FD
	193-39-5	Indeno(1,2,3-cd)pyrene	2.10E-04	J	1.30E-01		mg/kg	C3S021B017	77	1.60E-04 - 4.00E-02	NA	--	NA	--	Yes	FD
	7439-89-6	Iron	6.08E+03	J	4.68E+04	J	mg/kg	127-002-005	97	3.70E-01 - 8.50E+00	NA	--	NA	--	Yes	FD
	7439-92-1	Lead	1.40E+00	*J	4.16E+02		mg/kg	B07B-05	87	1.70E-01 - 3.53E+00	NA	--	NA	--	Yes	FD
	7439-95-4	Magnesium	1.76E+03		1.13E+04		mg/kg	M11-06	97	2.10E-01 - 1.06E+01	NA	--	NA	--	No	NUT
	7439-96-5	Manganese	7.18E+01		1.69E+03	J	mg/kg	030-S07-063	97	8.00E-02 - 2.50E-01	NA	--	NA	--	Yes	FD
	7439-97-6	Mercury	1.60E-01		2.60E+00		mg/kg	B07B-05	15	9.90E-02 - 2.69E-01	NA	--	NA	--	Yes	FD
	7439-98-7	Molybdenum	2.80E+00	B	3.30E+00	B	mg/kg	127-002-005	6	1.10E-01 - 3.30E+00	NA	--	NA	--	Yes	FD
	91-20-3	Naphthalene	2.90E-04	J	3.20E-02		mg/kg	C3S021B019	56	2.20E-04 - 2.00E-02	NA	--	NA	--	Yes	FD
	7440-02-0	Nickel	4.30E+00	B	1.50E+02		mg/kg	M11-06	97	1.00E-01 - 3.30E+00	NA	--	NA	--	Yes	FD
	86-30-6	n-Nitroso-diphenylamine	4.90E-02	J	4.90E-02	J	mg/kg	136-001-001	2	3.60E-02 - 1.40E+01	NA	--	NA	--	Yes	FD
	95-47-6	o-Xylene	4.90E-02		4.90E-02		mg/kg	136-001-001	8	. - .	NA	--	NA	--	Yes	FD
	85-01-8	Phenanthrene	2.60E-04	J	1.60E-01		mg/kg	C3S021B019	85	1.60E-04 - 3.40E-02	NA	--	NA	--	Yes	FD
	9/7/7440	Potassium	4.61E+02		2.06E+03		mg/kg	B07B-05	92	2.50E+00 - 1.40E+02	NA	--	NA	--	No	NUT
	129-00-0	Pyrene	3.40E-04	J	1.50E-01	J	mg/kg	C3S021B015	90	1.20E-04 - 3.20E-02	NA	--	NA	--	Yes	FD
	7782-49-2	Selenium	6.20E-01	J	6.20E-01	J	mg/kg	030-S07-045	3	2.09E-01 - 6.30E-01	NA	--	NA	--	Yes	FD
	7440-22-4	Silver	6.07E-01		5.64E+00		mg/kg	B07B-02	10	5.60E-02 - 5.36E-01	NA	--	NA	--	Yes	FD
	7440-23-5	Sodium	8.82E+01	J	1.15E+03	B	mg/kg	135-002-005	78	5.00E+00 - 6.43E+01	NA	--	NA	--	No	NUT
	7440-28-0	Thallium	9.00E-01	B	2.60E+00		mg/kg	135-002-005	22	2.69E-01 - 4.70E-01	NA	--	NA	--	Yes	FD
	108-88-3	Toluene	3.00E-03	J	1.10E-02	J	mg/kg	136-001-001	5	5.20E-03 - 1.40E-02	NA	--	NA	--	Yes	FD
	79-01-6	Trichloroethene	5.00E-03	J	5.00E-03	J	mg/kg	135-002-005	2	5.20E-03 - 1.40E-02	NA	--	NA	--	Yes	FD
	7440-62-2	Vanadium	1.46E+01		9.66E+01		mg/kg	127-002-005	97	6.90E-02 - 1.40E+00	NA	--	NA	--	Yes	FD
	1330-20-7	Xylene (Total)	2.00E-03	J	1.00E-01		mg/kg	136-001-001	8	5.20E-03 - 1.40E-02	NA	--	NA	--	Yes	FD
	7440-66-6	Zinc	1.61E+01		2.67E+02		mg/kg	B07B-05	97	1.10E-01 - 8.00E-01	NA	--	NA	--	Yes	FD

TABLE F-2.9: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, GROUNDWATER - PLUME 1

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 1
Exposure Medium:	Groundwater

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Plume 1 Future Tap Water	71-55-6	1,1,1-Trichloroethane	4.00E-04	J	1.20E+00		mg/l	G04-03	6	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	79-00-5	1,1,2-Trichloroethane	4.00E-04	J	2.60E-01		mg/l	S04-DGS-DP12	8	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	75-34-3	1,1-Dichlorethane	2.00E-04	J	2.90E+00		mg/l	S04-DGS-DP27	29	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	75-35-4	1,1-Dichlorethene	2.00E-04		2.00E+01		mg/l	S04-DGS-DP12	31	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	95-63-6	1,2,4-Trimethylbenzene	2.00E-04	J	4.60E-02		mg/l	M03-04	6	5.00E-04 - 1.70E-01	NA	--	NA	--	Yes	FD
	95-50-1	1,2-Dichlorobenzene	1.00E-04	J	2.40E-01		mg/l	MW360-1	11	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	107-06-2	1,2-Dichloroethane	2.00E-04	J	3.50E-01		mg/l	S04-DGS-DP12	12	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	540-59-0	1,2-Dichloroethene (Total)	1.00E-04	J	5.20E+00		mg/l	S04-DGS-DP03	50	1.00E-03 - 2.00E-01	NA	--	NA	--	Yes	FD
	78-87-5	1,2-Dichloropropane	1.00E-04	J	1.00E-04	J	mg/l	M11-05	0	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	108-67-8	1,3,5-Trimethylbenzene	2.00E-04		2.00E-02		mg/l	M03-04	5	5.00E-04 - 1.70E-01	NA	--	NA	--	Yes	FD
	541-73-1	1,3-Dichlorobenzene	7.00E-05	J	4.50E-03		mg/l	MW360-1	2	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	106-46-7	1,4-Dichlorobenzene	3.00E-04	J	4.80E-02		mg/l	MW360-1	7	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	78-93-3	2-Butanone	8.60E-03	J	7.10E-02	J	mg/l	DHP-S03-05	1	2.00E-03 - 3.30E+00	NA	--	NA	--	Yes	FD
	591-78-6	2-Hexanone	2.00E-03	J	2.00E-03	J	mg/l	S04-2-7	0	2.00E-03 - 3.30E+00	NA	--	NA	--	Yes	FD
	91-57-6	2-Methylnaphthalene	7.00E-04	J	7.00E-04	J	mg/l	030-S07-013	1	1.00E-03 - 1.10E-02	NA	--	NA	--	Yes	FD
	108-10-1	4-Methyl-2-pentanone	7.00E-04	J	2.90E-02	J	mg/l	M03-04	2	2.00E-03 - 3.30E+00	NA	--	NA	--	Yes	FD
	83-32-9	Acenaphthene	6.00E-04	J	2.00E-03	J	mg/l	116-Z21-005	3	1.00E-03 - 1.10E-02	NA	--	NA	--	Yes	FD
	208-96-8	Acenaphthylene	2.00E-03		2.00E-03		mg/l	M03-04	1	1.00E-03 - 1.10E-02	NA	--	NA	--	Yes	FD
	67-64-1	Acetone	1.30E-03	J	6.30E+01	J	mg/l	M03-11	7	2.00E-03 - 3.30E+00	NA	--	NA	--	Yes	FD
	7429-90-5	Aluminum	8.20E-03		9.22E+00		mg/l	G04-09	47	6.60E-03 - 1.00E-01	NA	--	NA	--	Yes	FD
	7440-36-0	Antimony	4.90E-05	J	1.04E-01	J	mg/l	DHP-S03-05	47	7.00E-04 - 5.00E-02	NA	--	NA	--	Yes	FD
	7440-38-2	Arsenic	1.20E-03	J	8.30E-02		mg/l	M03-04	71	8.00E-04 - 5.20E-02	NA	--	NA	--	Yes	FD
	7440-39-3	Barium	1.61E-02		8.80E-01	J	mg/l	M03-04	93	5.00E-05 - 2.00E-01	NA	--	NA	--	Yes	FD
	71-43-2	Benzene	1.00E-04	J	5.50E-01		mg/l	M03-04	13	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	56-55-3	Benzo(a)anthracene	1.00E-04	J	1.00E-04	J	mg/l	MW97-3	3	2.00E-04 - 1.10E-02	NA	--	NA	--	Yes	FD
	50-32-8	Benzo(a)pyrene	1.00E-04	J	1.00E-04	J	mg/l	M03-04	3	2.00E-04 - 1.10E-02	NA	--	NA	--	Yes	FD
	7440-41-7	Beryllium	2.30E-05		3.60E-03	J	mg/l	DHP-S07B-01	10	1.00E-04 - 4.40E-03	NA	--	NA	--	Yes	FD
	117-81-7	bis(2-ethylhexyl)phthalate	3.00E-03	J	3.30E-02		mg/l	G04-08	4	1.00E-03 - 1.00E-02	NA	--	NA	--	Yes	FD
	75-27-4	Bromodichloromethane	9.00E-04	J	1.00E-02	J	mg/l	MW360-1	3	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	7440-43-9	Cadmium	5.50E-05	J	1.83E-01		mg/l	G04-09	23	9.50E-05 - 8.00E-03	NA	--	NA	--	Yes	FD
	7440-70-2	Calcium	4.00E+00		1.20E+03		mg/l	D04-03	100	3.80E-03 - 5.00E+01	NA	--	NA	--	No	NUT
	75-15-0	Carbon disulfide	2.00E-04		1.70E-02	J	mg/l	M03-11	17	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD

TABLE F-2.9: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, GROUNDWATER - PLUME 1

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 1
Exposure Medium:	Groundwater

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Plume 1 Future Tap Water	108-90-7	Chlorobenzene	5.00E-04	J	2.60E-02		mg/l	S04-DGS-DP01	7	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	75-00-3	Chloroethane	4.00E-04	J	5.60E-01		mg/l	S11-DGS-DP108	4	1.00E-03 - 3.30E-01	NA	--	NA	--	Yes	FD
	67-66-3	Chloroform	1.00E-04	J	3.40E-02		mg/l	CA04-01	5	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	74-87-3	Chloromethane	1.00E-03	J	1.00E-02		mg/l	S04-2-7	1	1.00E-03 - 3.30E-01	NA	--	NA	--	Yes	FD
	7440-47-3	Chromium	1.00E-04	J	1.54E+00		mg/l	S04-DGS-DP06	44	1.30E-04 - 1.00E-02	NA	--	NA	--	Yes	FD
	18540-29-9	Chromium (VI)	4.85E-02	J	1.02E+00	J	mg/l	G04-02	33	8.00E-03 - 4.00E-01	NA	--	NA	--	Yes	FD
	156-59-2	cis-1,2-Dichloroethene	1.00E-04	J	8.60E-01		mg/l	S04-DGS-DP10	39	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	7440-48-4	Cobalt	6.80E-05	J	1.14E-01		mg/l	DHP-S07B-01	78	2.50E-04 - 2.64E-02	NA	--	NA	--	Yes	FD
	7440-50-8	Copper	7.90E-05		1.44E-01		mg/l	G04-09	75	3.50E-04 - 1.60E-02	NA	--	NA	--	Yes	FD
	57-12-5	Cyanide	1.30E-02		6.60E-02		mg/l	G04-09	73	1.00E-02 - 2.40E-02	NA	--	NA	--	Yes	FD
	100-41-4	Ethylbenzene	2.00E-04	J	1.50E-01		mg/l	M03-04	5	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	206-44-0	Fluoranthene	1.00E-04	J	1.80E-03	J	mg/l	G04-09	6	2.00E-04 - 1.10E-02	NA	--	NA	--	Yes	FD
	86-73-7	Fluorene	1.00E-03	J	1.00E-03	J	mg/l	116-Z21-005	3	1.00E-03 - 1.10E-02	NA	--	NA	--	Yes	FD
	87-68-3	Hexachlorobutadiene	4.00E-04	J	4.00E-04	J	mg/l	M04-05	1	5.00E-04 - 1.70E-01	NA	--	NA	--	Yes	FD
	7439-89-6	Iron	2.42E-02	J	4.14E+01		mg/l	G04-09	81	5.00E-03 - 5.00E-01	NA	--	NA	--	Yes	FD
	98-82-8	Isopropylbenzene	5.00E-04	J	5.50E-03		mg/l	M03-04	7	5.00E-04 - 1.70E-01	NA	--	NA	--	Yes	FD
	7439-92-1	Lead	4.50E-05	J	5.80E-02		mg/l	M03-04	27	5.00E-04 - 2.40E-02	NA	--	NA	--	Yes	FD
	108383	m,p-Xylene	5.00E-04	J	4.70E-01		mg/l	M03-04	11	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	7439-95-4	Magnesium	2.24E+00	J	2.60E+03		mg/l	D04-03	98	3.80E-03 - 5.00E+01	NA	--	NA	--	No	NUT
	7439-96-5	Manganese	8.20E-04		2.84E+01		mg/l	D04-03	97	2.00E-04 - 1.00E+00	NA	--	NA	--	Yes	FD
	7439-97-6	Mercury	4.10E-05	J	4.40E-05	J	mg/l	MW360-2	3	1.00E-04 - 2.00E-04	NA	--	NA	--	Yes	FD
	75-09-2	Methylene chloride	7.50E-02	J	7.50E-02	J	mg/l	M03-11	0	1.00E-03 - 1.70E+00	NA	--	NA	--	Yes	FD
	1634-04-4	Methyl-T-Butyl-Ether	3.00E-04	J	3.50E-02		mg/l	030-MOD1-67	2	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	7439-98-7	Molybdenum	7.90E-04		3.90E-01		mg/l	M04-05	72	2.50E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	91-20-3	Naphthalene	2.00E-04	J	1.70E+00		mg/l	S04-DGS-DP14	3	5.00E-04 - 6.70E-01	NA	--	NA	--	Yes	FD
	104-51-8	n-Butylbenzene	6.00E-04		2.40E-03		mg/l	M03-04	4	5.00E-04 - 1.70E-01	NA	--	NA	--	Yes	FD
	7440-02-0	Nickel	4.20E-04	J	1.55E+00		mg/l	HP-S04-01	80	3.00E-04 - 1.00E-01	NA	--	NA	--	Yes	FD
	103-65-1	n-Propylbenzene	1.50E-03		1.80E-02		mg/l	M03-04	7	5.00E-04 - 1.70E-01	NA	--	NA	--	Yes	FD
	95-47-6	o-Xylene	6.00E-04		2.70E-02		mg/l	030-MOD1-67	5	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	85-01-8	Phenanthrene	2.00E-03	J	2.00E-03	J	mg/l	116-Z21-005	1	1.00E-03 - 1.10E-02	NA	--	NA	--	Yes	FD
	108-95-2	Phenol	3.00E-03	J	1.30E-02	J	mg/l	G04-09	3	1.00E-03 - 1.10E-02	NA	--	NA	--	Yes	FD
	99-87-6	p-Isopropyltoluene	8.00E-04	J	8.00E-04	J	mg/l	M03-04	1	5.00E-04 - 1.70E-01	NA	--	NA	--	Yes	FD

TABLE F-2.9: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, GROUNDWATER - PLUME 1

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 1
Exposure Medium:	Groundwater

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier) (1)		Maximum Concentration (Qualifier) (1)		Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (2)	Background Value (3)	Screening Toxicity Value (nc/ca) (2)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Plume 1 Future Tap Water	9/7/7440	Potassium	9.10E-01		7.29E+02	J	mg/l	DHP-S07B-01	100	3.70E-03 - 5.00E+00	NA	--	NA	--	No	NUT
	129-00-0	Pyrene	1.00E-04	J	3.00E-03	J	mg/l	126-003-009	12	2.00E-04 - 1.10E-02	NA	--	NA	--	Yes	FD
	135-98-8	sec-Butylbenzene	1.00E-04	J	5.00E-04		mg/l	M03-04	5	5.00E-04 - 1.70E-01	NA	--	NA	--	Yes	FD
	7782-49-2	Selenium	5.00E-04	J	6.50E-02		mg/l	M03-09	46	8.00E-04 - 5.40E-02	NA	--	NA	--	Yes	FD
	7440-22-4	Silver	7.40E-04		4.12E-02	J	mg/l	DHP-S03-05	7	1.50E-04 - 5.00E-03	NA	--	NA	--	Yes	FD
	7440-23-5	Sodium	1.08E+01	J	1.70E+04		mg/l	D04-03	100	1.80E-02 - 5.00E+01	NA	--	NA	--	No	NUT
	75-65-0	Tert-Butanol	4.70E-03	J	5.00E-01		mg/l	M03-04	19	1.00E-02 - 3.30E+00	NA	--	NA	--	Yes	FD
	98-06-6	tert-Butylbenzene	3.00E-04		3.00E-04		mg/l	MW360-2	1	5.00E-04 - 1.70E-01	NA	--	NA	--	Yes	FD
	127-18-4	Tetrachloroethene	2.00E-04	J	1.40E-02		mg/l	S21-DGS-DP02	5	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	7440-28-0	Thallium	1.00E-03	J	6.92E-02	J	mg/l	DHP-S03-05	8	1.10E-03 - 1.40E-02	NA	--	NA	--	Yes	FD
	108-88-3	Toluene	1.00E-04	J	4.50E-02		mg/l	030-S07-013	19	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	156-60-5	trans-1,2-Dichloroethene	2.00E-04		1.30E-01		mg/l	S04-DGS-DP05	22	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	79-01-6	Trichloroethene	2.00E-04		3.30E+01		mg/l	S11-DGS-DP102	44	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	7440-62-2	Vanadium	8.70E-04		1.56E-01		mg/l	G04-09	63	2.50E-04 - 1.36E-02	NA	--	NA	--	Yes	FD
	75-01-4	Vinyl chloride	3.00E-04	J	1.40E+00		mg/l	S04-DGS-DP03	28	5.00E-04 - 2.00E-01	NA	--	NA	--	Yes	FD
	1330-20-7	Xylene (Total)	3.00E-04	J	3.20E-01	J	mg/l	M03-04	19	1.00E-03 - 2.00E-01	NA	--	NA	--	Yes	FD
	7440-66-6	Zinc	4.90E-04	J	1.46E+00	J	mg/l	DHP-S07B-01	59	3.00E-04 - 2.00E-02	NA	--	NA	--	Yes	FD

Notes:

(1) Qualifier codes are as follows:

J Estimated concentration value

(2) NA - No chemicals were removed from further consideration based upon comparison to screening toxicity values.

(3) Background values were derived from statistical analysis of the background data set and are shown for comparison purposes only.

(4) Rationale for Selection or Deletion codes are as follows:

Selection Reason: Frequent Detection (FD)

Deletion Reason: Essential Nutrient (NUT)

Acronyms:

--	No value availabie
ARAR/TBC	Applicable or relevant and appropriate requirement/to be determined
CAS	Chemical Abstract Service
COPC	Chemical of potential concern
MG/KG	Milligram per kilogram
NA	Not applicable

TABLE 2.10: OCCURRENCE, DISTRIBUTION, AND SELECTION OF CHEMICALS OF POTENTIAL CONCERN, GROUNDWATER - PLUME 2

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 2
Exposure Medium:	Groundwater

Exposure Point	CAS Number	Chemical	Minimum Concentration (Qualifier)	Maximum Concentration (Qualifier)	Units	Location of Maximum Concentration	Detection Frequency (Percent)	Range of Detection Limits	Concentration Used for Screening (1)	Background Value (2)	Screening Toxicity Value (nc/ca) (3)	Potential ARAR/TBC Source	COPC Flag (Y/N)	Rationale for Selection or Deletion (4)
Plume 2 Future Tap Water	7439-92-1	Lead	4.20E-03	2.10E-01	mg/l	S03-DGS-DP14	57	6.50E-04 - 1.30E-03	NA	--	NA	--	Yes	FD

Notes:

(1) NA - No chemicals were removed from further consideration based upon comparison to screening toxicity values.

(2) Background values were derived from statistical analysis of the background data set and are shown for comparison purposes only.

(3) Rationale for Selection or Deletion codes are as follows:

Selection Reason: Frequent Detection (FD)

Acronyms:

--	No value available
CAS	Chemical Abstract Service
COPC	Chemical of potential concern
MG/KG	Milligram per kilogram
NA	Not applicable

TABLE F-3.1: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 3 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 3	2-Methylnaphthalene	mg/kg	1.07E-02	2.85E-02	NP	3.70E-01		2.85E-02	mg/kg	(5)	(4)
	4,4'-DDT	mg/kg	4.05E-03	9.65E-03	NP	1.50E-02		9.65E-03	mg/kg	(5)	(4)
	Acenaphthene	mg/kg	3.47E-02	1.46E-01	NP	2.60E+00		1.46E-01	mg/kg	(5)	(4)
	Acenaphthylene	mg/kg	7.49E-03	1.56E-02	NP	4.80E-02		1.56E-02	mg/kg	(5)	(4)
	Acetone	mg/kg	4.17E-02	1.60E-01	NP	1.40E-01	J	1.40E-01	mg/kg	(5)	(2)
	alpha-Chlordane	mg/kg	1.08E-03	2.35E-03	NP	1.90E-03	JP	1.90E-03	mg/kg	(5)	(2)
	Aluminum	mg/kg	7.29E+03	9.36E+03	G	2.25E+04		9.36E+03	mg/kg	(2)	(3)
	Anthracene	mg/kg	9.54E-02	4.19E-01	NP	7.60E+00		4.19E-01	mg/kg	(5)	(4)
	Aroclor-1260	mg/kg	3.94E-01	2.01E+00	NP	5.20E+00		2.01E+00	mg/kg	(5)	(4)
	Arsenic	mg/kg	3.14E+00	7.86E+00	NP	1.02E+01		7.86E+00	mg/kg	(5)	(4)
	Barium	mg/kg	5.00E+01	1.09E+02	NP	2.33E+02		1.09E+02	mg/kg	(5)	(3)
	Benzo(a)anthracene	mg/kg	1.99E-01	1.05E+00	NP	1.40E+01		1.05E+00	mg/kg	(6)	(3)
	Benzo(a)pyrene	mg/kg	1.83E-01	8.58E-01	NP	1.10E+01		8.58E-01	mg/kg	(6)	(3)
	Benzo(b)fluoranthene	mg/kg	9.99E-02	1.81E-01	L	1.10E+01		1.81E-01	mg/kg	(4)	(3)
	Benzo(g,h,i)perylene	mg/kg	1.07E-01	1.86E-01	L	4.10E+00	J	1.86E-01	mg/kg	(4)	(3)
	Benzo(k)fluoranthene	mg/kg	1.51E-01	5.78E-01	NP	1.00E+01		5.78E-01	mg/kg	(5)	(4)
	Beryllium	mg/kg	4.64E-01	1.07E+00	NP	1.70E+00		1.07E+00	mg/kg	(5)	(4)
	Cadmium	mg/kg	2.92E-01	8.26E-01	NP	1.20E+00	B	8.26E-01	mg/kg	(5)	(4)
	Carbazole	mg/kg	1.75E-01	4.04E-01	NP	1.60E-01	J	1.60E-01	mg/kg	(5)	(2)
	Chlordane	mg/kg	4.25E-02	1.49E-01	NP	1.80E-01		1.49E-01	mg/kg	(5)	(4)
	Chromium	mg/kg	2.71E+01	3.18E+01	N	4.17E+01	J	3.18E+01	mg/kg	(1)	(3)
	Chrysene	mg/kg	1.13E-01	2.08E-01	L	1.40E+01		2.08E-01	mg/kg	(4)	(3)

TABLE F-3.1: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 3 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 3	Cobalt	mg/kg	6.13E+00	7.26E+00	G	1.11E+01	J	7.26E+00	mg/kg	(2)	(3)
	Copper	mg/kg	2.31E+01	3.71E+01	G	1.28E+02		3.71E+01	mg/kg	(2)	(3)
	Dibenzo(a,h)anthracene	mg/kg	2.48E-02	7.09E-02	NP	1.00E+00		7.09E-02	mg/kg	(5)	(4)
	Dibenzofuran	mg/kg	7.36E-01	2.96E+00	NP	1.20E+00	J	1.20E+00	mg/kg	(5)	(2)
	Diethylphthalate	mg/kg	7.11E-01	2.89E+00	NP	2.20E-02	J	2.20E-02	mg/kg	(5)	(2)
	di-n-Butylphthalate	mg/kg	6.94E-01	2.85E+00	NP	1.30E-01	J	1.30E-01	mg/kg	(5)	(2)
	Fluoranthene	mg/kg	5.11E-01	4.21E+00	NP	3.80E+01		4.21E+00	mg/kg	(7)	(4)
	Fluorene	mg/kg	5.02E-02	2.16E-01	NP	3.90E+00		2.16E-01	mg/kg	(5)	(4)
	gamma-Chlordane	mg/kg	1.09E-03	2.41E-03	NP	2.00E-03	J	2.00E-03	mg/kg	(5)	(2)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.02E-01	3.38E-01	L	5.90E+00		3.38E-01	mg/kg	(8)	(4)
	Iron	mg/kg	1.52E+04	2.04E+04	G	3.54E+04		2.04E+04	mg/kg	(2)	(3)
	Lead	mg/kg	8.49E+01	3.69E+02	L	5.11E+02	J	3.69E+02	mg/kg	(9)	(3)
	Manganese	mg/kg	2.50E+02	3.75E+02	G	8.87E+02	J	3.75E+02	mg/kg	(2)	(3)
	Mercury	mg/kg	2.35E-01	6.77E-01	NP	1.10E+00		6.77E-01	mg/kg	(5)	(4)
	Naphthalene	mg/kg	1.63E-02	5.14E-02	NP	8.00E-01		5.14E-02	mg/kg	(5)	(4)
	Nickel	mg/kg	2.37E+01	2.90E+01	N	4.82E+01		2.90E+01	mg/kg	(1)	(3)
	n-Nitroso-diphenylamine	mg/kg	7.12E-01	2.87E+00	NP	2.70E-02	J	2.70E-02	mg/kg	(5)	(2)
	Phenanthrene	mg/kg	3.99E-01	1.76E+00	NP	3.20E+01		1.76E+00	mg/kg	(5)	(4)
	Pyrene	mg/kg	3.74E-01	1.90E+00	NP	2.50E+01		1.90E+00	mg/kg	(6)	(3)
	Silver	mg/kg	7.92E-01	3.11E+00	NP	4.50E-01	B	4.50E-01	mg/kg	(5)	(2)
	Thallium	mg/kg	2.18E+00	6.79E+00	NP	4.60E+00		4.60E+00	mg/kg	(5)	(2)
	Titanium	mg/kg	3.80E+02	4.47E+02	NP	4.00E+02		4.00E+02	mg/kg	(5)	(2)

TABLE F-3.1: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 3 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)	Exposure Point Concentration			
							Value	Units	Statistic [b]	Rationale [c]
Site 3	Vanadium	mg/kg	2.64E+01	3.19E+01	G	5.74E+01	3.19E+01	mg/kg	(2)	(3)
	Zinc	mg/kg	7.52E+01	2.14E+02	NP	5.12E+02	2.14E+02	mg/kg	(5)	(3)

Notes:

See Section 5.3 of Appendix F for a detailed description of the statistical methods used.

DF	Detection frequency
ft bgs	Feet below ground surface
J	Estimated value
MAX	Maximum detected concentration
mg/kg	Milligrams per kilogram
MVUE	Minimum variance unbiased estimator
n	Sample size
N/A	Not applicable
UCL	One-sided upper confidence limit of the mean. Following Singh, Singh, and Maichle (2004), this can be either a 95, 97.5, or 99 percent UCL.
>	Greater than
≥	Greater than or equal to
a	Distribution Codes: G= gamma, L= lognormal, N= normal, NP= nonparametric
b	Statistic codes: (1) Student's t (UCL95), (2) approximate gamma (UCL95), (3) adjusted gamma (UCL95), (4) Land's H-statistic (UCL95), (5) nonparametric Chebyshev (UCL95), (6) nonparametric Chebyshev (UCL97.5), (7) nonparametric Chebyshev (UCL99), (8) MVUE Chebyshev (UCL95), (9) MVUE Chebyshev (UCL97.5), (10) MVUE Chebyshev (UCL99), (11) Hall's bootstrap, (12) bootstrap t, (13) MAX
c	Rationale codes: (1) n<3, MAX used as default; (2) estimated UCL > MAX, MAX used as default; (3) DF ≥ 85 percent, distribution-dependent equations used to calculate a UCL following Singh, Singh, and Maichle (2004); (4) DF < 85 percent, "bounding" approach used to calculate

TABLE F-3.1: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 3 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

a UCL following EPA (2002)

Singh, A., Singh, A.K., and R.W. Maichle. 2004. "ProUCL Version 3.0 User Guide." Prepared for U.S. Environmental Protection Agency, Technical Support Center, Las Vegas, NV. April.

U.S. Environmental Protection Agency (EPA). 2002. "Calculating exposure point concentrations at hazardous waste sites." OSWER 9285.6-10. Office of Emergency and Remedial Response. Washington, DC. December.

TABLE F-3.2: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 3 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 3	2,4-Dimethylphenol	mg/kg	5.49E-01	1.60E+00	NP	4.30E-02	J	4.30E-02	mg/kg	(5)	(2)
	2-Butanone	mg/kg	2.70E-01	1.73E+00	NP	2.40E-01	J	2.40E-01	mg/kg	(5)	(2)
	2-Methylnaphthalene	mg/kg	5.72E-02	2.69E-01	NP	1.00E+01	J	2.69E-01	mg/kg	(5)	(4)
	4,4'-DDT	mg/kg	3.08E-03	6.49E-03	NP	1.50E-02		6.49E-03	mg/kg	(5)	(4)
	4-Methyl-2-pentanone	mg/kg	2.85E-01	1.85E+00	NP	4.50E-02		4.50E-02	mg/kg	(5)	(2)
	Acenaphthene	mg/kg	6.63E-02	2.67E-01	NP	9.10E+00	J	2.67E-01	mg/kg	(5)	(4)
	Acenaphthylene	mg/kg	9.74E-03	1.94E-02	NP	3.90E-01	J	1.94E-02	mg/kg	(5)	(4)
	Acetone	mg/kg	3.66E-01	1.92E+00	NP	1.50E+00	DBJ	1.50E+00	mg/kg	(5)	(2)
	alpha-Chlordane	mg/kg	1.03E-03	1.86E-03	NP	1.90E-03	JP	1.86E-03	mg/kg	(5)	(4)
	Aluminum	mg/kg	9.44E+03	1.10E+04	G	2.81E+04		1.10E+04	mg/kg	(2)	(3)
	Anthracene	mg/kg	1.45E-01	5.40E-01	NP	1.70E+01		5.40E-01	mg/kg	(5)	(4)
	Antimony	mg/kg	2.25E+00	6.12E+00	NP	5.00E+00	J	5.00E+00	mg/kg	(5)	(2)
	Aroclor-1260	mg/kg	2.06E-01	1.01E+00	NP	5.20E+00		1.01E+00	mg/kg	(5)	(4)
	Arsenic	mg/kg	5.99E+00	1.95E+01	G	3.15E+01		1.95E+01	mg/kg	(8)	(4)
	Barium	mg/kg	9.63E+01	2.06E+02	NP	1.06E+03		2.06E+02	mg/kg	(5)	(3)
	Benzene	mg/kg	4.98E-01	1.87E+00	NP	1.20E+01		1.87E+00	mg/kg	(5)	(4)
	Benzo(a)anthracene	mg/kg	2.29E-01	8.85E-01	NP	1.60E+01		8.85E-01	mg/kg	(6)	(3)
	Benzo(a)pyrene	mg/kg	2.45E-01	1.12E+00	NP	1.40E+01		1.12E+00	mg/kg	(7)	(3)
	Benzo(b)fluoranthene	mg/kg	2.29E-01	7.80E-01	NP	1.40E+01		7.80E-01	mg/kg	(6)	(3)
	Benzo(g,h,i)perylene	mg/kg	1.92E-01	2.88E-01	L	5.60E+00		2.88E-01	mg/kg	(4)	(3)
	Benzo(k)fluoranthene	mg/kg	1.50E-01	3.96E-01	NP	1.00E+01		3.96E-01	mg/kg	(5)	(4)
	Beryllium	mg/kg	1.41E+00	5.28E+00	NP	1.90E+00		1.90E+00	mg/kg	(5)	(2)

TABLE F-3.2: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 3 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 3	bis(2-ethylhexyl)phthalate	mg/kg	5.34E-01	1.58E+00	NP	5.00E-02	J	5.00E-02	mg/kg	(5)	(2)
	Cadmium	mg/kg	1.30E+00	5.01E+00	NP	1.30E+00	J	1.30E+00	mg/kg	(5)	(2)
	Carbazole	mg/kg	2.50E-01	9.38E-01	NP	1.60E-01	J	1.60E-01	mg/kg	(5)	(2)
	Carbon disulfide	mg/kg	2.87E-01	1.88E+00	NP	1.20E-02		1.20E-02	mg/kg	(5)	(2)
	Chlordane	mg/kg	4.22E-02	1.49E-01	NP	1.80E-01		1.49E-01	mg/kg	(5)	(4)
	Chromium	mg/kg	3.30E+01	4.50E+01	NP	9.90E+01		4.50E+01	mg/kg	(5)	(3)
	Chrysene	mg/kg	2.48E-01	9.05E-01	NP	1.60E+01		9.05E-01	mg/kg	(6)	(3)
	Cobalt	mg/kg	6.81E+00	7.51E+00	G	1.40E+01		7.51E+00	mg/kg	(2)	(3)
	Copper	mg/kg	3.51E+01	9.89E+01	L	2.43E+02		9.89E+01	mg/kg	(8)	(4)
	Dibenzo(a,h)anthracene	mg/kg	2.88E-02	6.74E-02	NP	1.40E+00	J	6.74E-02	mg/kg	(5)	(4)
	Dibenzofuran	mg/kg	5.56E-01	1.58E+00	NP	1.20E+00	J	1.20E+00	mg/kg	(5)	(2)
	Diethylphthalate	mg/kg	5.60E-01	1.59E+00	NP	2.20E-02	J	2.20E-02	mg/kg	(5)	(2)
	di-n-Butylphthalate	mg/kg	5.32E-01	1.57E+00	NP	1.30E-01	J	1.30E-01	mg/kg	(5)	(2)
	di-n-Octylphthalate	mg/kg	5.48E-01	1.60E+00	NP	9.40E-02	J	9.40E-02	mg/kg	(5)	(2)
	Ethylbenzene	mg/kg	1.32E+00	5.72E+00	NP	5.00E+01		5.72E+00	mg/kg	(5)	(4)
	Fluoranthene	mg/kg	5.49E-01	3.09E+00	NP	3.80E+01		3.09E+00	mg/kg	(7)	(3)
	Fluorene	mg/kg	1.00E-01	4.10E-01	NP	1.40E+01	J	4.10E-01	mg/kg	(5)	(4)
	gamma-BHC (Lindane)	mg/kg	2.68E-03	1.61E-02	NP	1.90E-03	PJ	1.90E-03	mg/kg	(5)	(2)
	gamma-Chlordane	mg/kg	1.02E-03	1.85E-03	NP	2.00E-03	J	1.85E-03	mg/kg	(5)	(4)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.76E-01	2.70E-01	L	5.90E+00		2.70E-01	mg/kg	(4)	(3)
	Iron	mg/kg	1.78E+04	2.48E+04	NP	3.97E+04		2.48E+04	mg/kg	(5)	(3)
	Lead	mg/kg	3.40E+02	1.80E+03	NP	1.37E+04	J	1.80E+03	mg/kg	(7)	(3)

TABLE F-3.2: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 3 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 3	m,p-Xylene	mg/kg	6.36E-01	3.09E+00	NP	4.00E+00		3.09E+00	mg/kg	(5)	(4)
	Manganese	mg/kg	2.32E+02	2.87E+02	L	8.91E+02		2.87E+02	mg/kg	(4)	(3)
	Mercury	mg/kg	1.52E+00	6.20E+00	NP	3.10E+00		3.10E+00	mg/kg	(5)	(2)
	Methylene chloride	mg/kg	2.50E-01	1.58E+00	NP	9.40E-02		9.40E-02	mg/kg	(5)	(2)
	Methyl-T-Butyl-Ether	mg/kg	7.72E-03	2.65E-02	NP	4.00E-03	J	4.00E-03	mg/kg	(5)	(2)
	Naphthalene	mg/kg	7.56E-02	3.48E-01	NP	1.30E+01	J	3.48E-01	mg/kg	(5)	(4)
	Nickel	mg/kg	3.15E+01	3.65E+01	G	8.40E+01		3.65E+01	mg/kg	(2)	(3)
	n-Nitroso-diphenylamine	mg/kg	5.30E-01	1.55E+00	NP	5.50E-01	J	5.50E-01	mg/kg	(5)	(2)
	o-Xylene	mg/kg	2.48E-01	1.22E+00	NP	4.00E+00		1.22E+00	mg/kg	(5)	(4)
	Phenanthrene	mg/kg	4.89E-01	2.25E+00	NP	4.80E+01	J	2.25E+00	mg/kg	(6)	(3)
	Pyrene	mg/kg	5.00E-01	1.80E+00	NP	3.40E+01		1.80E+00	mg/kg	(6)	(3)
	Silver	mg/kg	1.90E+00	5.67E+00	NP	2.40E+00	J	2.40E+00	mg/kg	(5)	(2)
	Thallium	mg/kg	2.00E+00	4.74E+00	NP	4.60E+00		4.60E+00	mg/kg	(5)	(2)
	Titanium	mg/kg	4.08E+02	4.78E+02	G	6.70E+02		4.78E+02	mg/kg	(2)	(3)
	Toluene	mg/kg	4.30E+00	2.26E+01	NP	2.10E+02		2.26E+01	mg/kg	(5)	(4)
	Vanadium	mg/kg	3.07E+01	3.46E+01	G	7.45E+01		3.46E+01	mg/kg	(2)	(3)
	Xylene (Total)	mg/kg	6.53E+00	3.19E+01	NP	2.50E+02		3.19E+01	mg/kg	(5)	(4)
	Zinc	mg/kg	1.00E+02	3.97E+02	NP	1.26E+03		3.97E+02	mg/kg	(7)	(3)

Notes:

See Appendix E for a detailed description of the statistical methods used.

DF Detection frequency

TABLE F-3.2: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 3 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

ft bgs	Feet below ground surface
J	Estimated value
MAX	Maximum detected concentration
mg/kg	Milligrams per kilogram
MVUE	Minimum variance unbiased estimator
n	Sample size
N/A	Not applicable
UCL	One-sided upper confidence limit of the mean. Following Singh, Singh, and Maichle (2004), this can be either a 95, 97.5, or 99 percent UCL.
>	Greater than
≥	Greater than or equal to
a	Distribution Codes: G= gamma, L= lognormal, N= normal, NP= nonparametric
b	Statistic codes: (1) Student's t (UCL95), (2) approximate gamma (UCL95), (3) adjusted gamma (UCL95), (4) Land's H-statistic (UCL95), (5) nonparametric Chebyshev (UCL95), (6) nonparametric Chebyshev (UCL97.5), (7) nonparametric Chebyshev (UCL99), (8) MVUE Chebyshev (UCL95), (9) MVUE Chebyshev (UCL97.5), (10) MVUE Chebyshev (UCL99), (11) Hall's bootstrap, (12) bootstrap t, (13) MAX
c	Rationale codes: (1) n<3, MAX used as default; (2) estimated UCL > MAX, MAX used as default; (3) DF ≥ 85 percent, distribution-dependent equations used to calculate a UCL following Singh, Singh, and Maichle (2004); (4) DF < 85 percent, "bounding" approach used to calculate a UCL following EPA (2002)

Singh, A., Singh, A.K., and R.W. Maichle. 2004. "ProUCL Version 3.0 User Guide." Prepared for U.S. Environmental Protection Agency, Technical Support Center, Las Vegas, NV. April.

U.S. Environmental Protection Agency (EPA). 2002. "Calculating exposure point concentrations at hazardous waste sites." OSWER 9285.6-10. Office of Emergency and Remedial Response. Washington, DC. December.

TABLE F-3.3: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 4	1,1,1-Trichloroethane	mg/kg	5.18E-03	8.85E-03	NP	6.00E-03	J	6.00E-03	mg/kg	(5)	(2)
	1,1,2,2-Tetrachloroethane	mg/kg	1.15E-02	3.09E-02	NP	9.20E-02	JN	3.09E-02	mg/kg	(5)	(4)
	1,1-Dichlorethene	mg/kg	5.00E-03	8.86E-03	NP	1.00E-03	J	1.00E-03	mg/kg	(5)	(2)
	1,2-Dichloroethene (Total)	mg/kg	5.29E-03	8.97E-03	NP	2.00E-03	J	2.00E-03	mg/kg	(5)	(2)
	2-Methylnaphthalene	mg/kg	8.86E-03	1.97E-02	NP	2.40E-01		1.97E-02	mg/kg	(5)	(4)
	4,4'-DDD	mg/kg	4.33E-03	7.04E-03	N	9.30E-03	PJ	7.04E-03	mg/kg	(1)	(4)
	4,4'-DDE	mg/kg	8.17E-03	1.31E-02	N	1.50E-02	J	1.31E-02	mg/kg	(1)	(4)
	4,4'-DDT	mg/kg	1.33E-02	2.36E-02	N	3.20E-02	J	2.36E-02	mg/kg	(1)	(4)
	Acenaphthene	mg/kg	1.11E-02	2.40E-02	NP	2.90E-01		2.40E-02	mg/kg	(5)	(4)
	Acenaphthylene	mg/kg	1.04E-02	2.24E-02	NP	2.80E-01		2.24E-02	mg/kg	(5)	(4)
	Acetone	mg/kg	8.33E-03	2.01E-02	NP	1.60E-02	J	1.60E-02	mg/kg	(5)	(2)
	alpha-Chlordane	mg/kg	3.39E-03	1.08E-02	NP	1.10E-02	PJ	1.08E-02	mg/kg	(5)	(4)
	Aluminum	mg/kg	5.29E+03	5.60E+03	G	1.00E+04		5.60E+03	mg/kg	(2)	(3)
	Anthracene	mg/kg	1.44E-02	3.81E-02	NP	7.40E-01		3.81E-02	mg/kg	(5)	(4)
	Antimony	mg/kg	2.21E+00	5.59E+00	NP	4.60E+00		4.60E+00	mg/kg	(5)	(2)
	Aroclor-1260	mg/kg	2.42E-02	5.74E-02	NP	3.80E-02		3.80E-02	mg/kg	(5)	(2)
	Arsenic	mg/kg	1.96E+00	3.30E+00	NP	6.90E+00		3.30E+00	mg/kg	(5)	(4)
	Barium	mg/kg	4.84E+01	5.26E+01	G	1.36E+02		5.26E+01	mg/kg	(2)	(3)
	Benzene	mg/kg	5.06E-03	8.82E-03	NP	1.00E-03	J	1.00E-03	mg/kg	(5)	(2)
	Benzo(a)anthracene	mg/kg	4.21E-02	9.58E-02	NP	1.60E+00		9.58E-02	mg/kg	(5)	(4)
	Benzo(a)pyrene	mg/kg	4.91E-02	1.06E-01	NP	1.50E+00		1.06E-01	mg/kg	(5)	(4)
	Benzo(b)fluoranthene	mg/kg	5.38E-02	1.48E-01	NP	1.90E+00		1.48E-01	mg/kg	(6)	(4)

TABLE F-3.3: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 4	Benzo(g,h,i)perylene	mg/kg	4.28E-02	6.11E-02	L	9.20E-01		6.11E-02	mg/kg	(4)	(3)
	Benzo(k)fluoranthene	mg/kg	2.95E-02	5.83E-02	NP	5.30E-01		5.83E-02	mg/kg	(5)	(4)
	Beryllium	mg/kg	1.24E+00	4.54E+00	NP	7.70E-01	J	7.70E-01	mg/kg	(5)	(2)
	bis(2-ethylhexyl)phthalate	mg/kg	7.58E-01	1.67E+00	NP	7.60E+00		1.67E+00	mg/kg	(5)	(4)
	Butylbenzylphthalate	mg/kg	5.91E-01	1.20E+00	NP	4.50E-02	J	4.50E-02	mg/kg	(5)	(2)
	Cadmium	mg/kg	4.26E+00	1.30E+01	NP	1.05E+02	J	1.30E+01	mg/kg	(5)	(4)
	Carbazole	mg/kg	8.07E-01	1.73E+00	NP	4.20E-02	J	4.20E-02	mg/kg	(5)	(2)
	Chromium	mg/kg	9.99E+01	2.37E+02	NP	1.53E+03		2.37E+02	mg/kg	(5)	(3)
	Chromium (VI)	mg/kg	9.66E-01	1.58E+00	G	7.81E+00	J	1.58E+00	mg/kg	(2)	(3)
	Chrysene	mg/kg	7.83E-02	2.19E-01	NP	2.20E+00		2.19E-01	mg/kg	(6)	(3)
	Cobalt	mg/kg	6.08E+00	8.49E+00	NP	2.63E+01		8.49E+00	mg/kg	(5)	(3)
	Copper	mg/kg	2.49E+01	4.99E+01	NP	3.26E+02		4.99E+01	mg/kg	(5)	(3)
	Cyanide	mg/kg	1.23E+00	3.27E+00	NP	1.86E+01	J	3.27E+00	mg/kg	(5)	(4)
	Dibenzo(a,h)anthracene	mg/kg	1.23E-02	2.28E-02	NP	1.70E-01	J	2.28E-02	mg/kg	(5)	(4)
	di-n-Butylphthalate	mg/kg	5.77E-01	1.19E+00	NP	8.00E-02	J	8.00E-02	mg/kg	(5)	(2)
	di-n-Octylphthalate	mg/kg	6.13E-01	1.21E+00	NP	2.10E-02	J	2.10E-02	mg/kg	(5)	(2)
	Endrin Ketone	mg/kg	4.77E-03	1.56E-02	NP	1.60E-02	PJ	1.56E-02	mg/kg	(5)	(4)
	Ethylbenzene	mg/kg	7.62E-03	1.43E-02	NP	2.80E-02		1.43E-02	mg/kg	(5)	(4)
	Fluoranthene	mg/kg	7.32E-02	1.95E-01	NP	3.90E+00	J	1.95E-01	mg/kg	(5)	(4)
	Fluorene	mg/kg	1.28E-02	2.99E-02	NP	4.50E-01		2.99E-02	mg/kg	(5)	(4)
	gamma-Chlordane	mg/kg	2.83E-03	8.53E-03	NP	8.60E-03	J	8.53E-03	mg/kg	(5)	(4)
	Indeno(1,2,3-cd)pyrene	mg/kg	3.75E-02	7.52E-02	NP	8.50E-01		7.52E-02	mg/kg	(5)	(4)

TABLE F-3.3: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 4	Iron	mg/kg	9.32E+03	9.82E+03	G	2.26E+04	J	9.82E+03	mg/kg	(2)	(3)
	Lead	mg/kg	1.97E+01	5.59E+01	NP	3.71E+02	J	5.59E+01	mg/kg	(6)	(4)
	Manganese	mg/kg	1.40E+02	1.49E+02	G	3.06E+02	J	1.49E+02	mg/kg	(2)	(3)
	Mercury	mg/kg	1.29E+00	5.40E+00	NP	2.80E-01		2.80E-01	mg/kg	(5)	(2)
	Methylene chloride	mg/kg	5.78E-03	1.09E-02	NP	3.00E-03	J	3.00E-03	mg/kg	(5)	(2)
	Molybdenum	mg/kg	1.00E+00	2.12E+00	NP	1.10E+00	J	1.10E+00	mg/kg	(5)	(2)
	Naphthalene	mg/kg	1.00E-02	2.23E-02	NP	3.20E-01		2.23E-02	mg/kg	(5)	(4)
	Nickel	mg/kg	7.62E+01	1.86E+02	NP	1.40E+03		1.86E+02	mg/kg	(5)	(3)
	n-Nitroso-di-n-propylamine	mg/kg	6.00E-01	1.22E+00	NP	1.80E-01	J	1.80E-01	mg/kg	(5)	(2)
	n-Nitroso-diphenylamine	mg/kg	5.75E-01	1.17E+00	NP	3.20E-01	J	3.20E-01	mg/kg	(5)	(2)
	Pentachlorophenol	mg/kg	1.74E+00	3.47E+00	NP	1.30E-01	J	1.30E-01	mg/kg	(5)	(2)
	Phenanthrene	mg/kg	5.98E-02	1.86E-01	NP	4.10E+00		1.86E-01	mg/kg	(5)	(4)
	Phenol	mg/kg	6.11E-01	1.21E+00	NP	7.40E-02	J	7.40E-02	mg/kg	(5)	(2)
	Pyrene	mg/kg	6.10E-02	9.43E-02	L	4.20E+00	J	9.43E-02	mg/kg	(4)	(3)
	Selenium	mg/kg	8.41E-01	2.35E+00	NP	1.20E+00		1.20E+00	mg/kg	(5)	(2)
	Silver	mg/kg	5.47E+00	1.40E+01	NP	8.11E+01	J	1.40E+01	mg/kg	(5)	(4)
	Thallium	mg/kg	8.16E-01	2.48E+00	NP	2.50E+00		2.48E+00	mg/kg	(5)	(4)
	Titanium	mg/kg	4.25E+02	5.10E+02	G	7.29E+02		5.10E+02	mg/kg	(2)	(3)
	Toluene	mg/kg	4.99E-03	8.65E-03	NP	4.00E-03	J	4.00E-03	mg/kg	(5)	(2)
	Trichloroethene	mg/kg	5.12E-03	8.77E-03	NP	6.00E-03	J	6.00E-03	mg/kg	(5)	(2)
	Vanadium	mg/kg	2.06E+01	2.14E+01	G	3.50E+01		2.14E+01	mg/kg	(2)	(3)
	Xylene (Total)	mg/kg	2.94E-02	7.03E-02	NP	1.70E-01		7.03E-02	mg/kg	(5)	(4)

TABLE F-3.3: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)	Exposure Point Concentration			
							Value	Units	Statistic [b]	Rationale [c]
Site 4	Zinc	mg/kg	3.92E+01	6.10E+01	NP	2.83E+02	6.10E+01	mg/kg	(5)	(3)

Notes:

See Appendix E for a detailed description of the statistical methods used.

DF	Detection frequency
ft bgs	Feet below ground surface
J	Estimated value
MAX	Maximum detected concentration
mg/kg	Milligrams per kilogram
MVUE	Minimum variance unbiased estimator
n	Sample size
N/A	Not applicable
UCL	One-sided upper confidence limit of the mean. Following Singh, Singh, and Maichle (2004), this can be either a 95, 97.5, or 99 percent UCL.
>	Greater than
≥	Greater than or equal to
a	Distribution Codes: G= gamma, L= lognormal, N= normal, NP= nonparametric
b	Statistic codes: (1) Student's t (UCL95), (2) approximate gamma (UCL95), (3) adjusted gamma (UCL95), (4) Land's H-statistic (UCL95), (5) nonparametric Chebyshev (UCL95), (6) nonparametric Chebyshev (UCL97.5), (7) nonparametric Chebyshev (UCL99), (8) MVUE Chebyshev (UCL95), (9) MVUE Chebyshev (UCL97.5), (10) MVUE Chebyshev (UCL99), (11) Hall's bootstrap, (12) bootstrap t, (13) MAX
c	Rationale codes: (1) n<3, MAX used as default; (2) estimated UCL > MAX, MAX used as default; (3) DF ≥ 85 percent, distribution-dependent equations used to calculate a UCL following Singh, Singh, and Maichle (2004); (4) DF < 85 percent, "bounding" approach used to calculate a UCL following EPA (2002)

TABLE F-3.3: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

Singh, A., Singh, A.K., and R.W. Maichle. 2004. "ProUCL Version 3.0 User Guide." Prepared for U.S. Environmental Protection Agency, Technical Support Center, Las Vegas, NV. April.

U.S. Environmental Protection Agency (EPA). 2002. "Calculating exposure point concentrations at hazardous waste sites." OSWER 9285.6-10. Office of Emergency and Remedial Response. Washington, DC. December.

TABLE F-3.4: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 4	1,1,1-Trichloroethane	mg/kg	3.08E-02	1.25E-01	NP	4.30E-02		4.30E-02	mg/kg	(5)	(2)
	1,1,2,2-Tetrachloroethane	mg/kg	2.59E-02	1.17E-01	NP	6.00E-01	J	1.17E-01	mg/kg	(5)	(4)
	1,1-Dichlorethane	mg/kg	2.54E-02	1.21E-01	NP	1.40E-02		1.40E-02	mg/kg	(5)	(2)
	1,1-Dichlorethene	mg/kg	3.93E-02	1.43E-01	NP	1.40E+00		1.43E-01	mg/kg	(5)	(4)
	1,2-Dichlorobenzene	mg/kg	3.97E-01	6.82E-01	NP	4.00E+00	J	6.82E-01	mg/kg	(5)	(4)
	1,2-Dichloroethene (Total)	mg/kg	6.15E-02	2.51E-01	NP	4.70E+00		2.51E-01	mg/kg	(5)	(4)
	1,4-Dichlorobenzene	mg/kg	3.74E-01	6.40E-01	NP	8.10E-01	J	6.40E-01	mg/kg	(5)	(4)
	2,4-Dinitrotoluene	mg/kg	4.51E-01	7.96E-01	NP	6.00E-02	J	6.00E-02	mg/kg	(5)	(2)
	2-Hexanone	mg/kg	6.77E-02	3.04E-01	NP	6.60E+00	J	3.04E-01	mg/kg	(5)	(4)
	2-Methylnaphthalene	mg/kg	8.32E-03	1.59E-02	NP	3.00E-01		1.59E-02	mg/kg	(5)	(4)
	3,3'-Dichlorobenzidine	mg/kg	5.64E-01	9.24E-01	NP	8.90E-01	J	8.90E-01	mg/kg	(5)	(2)
	4,4'-DDD	mg/kg	3.09E-03	7.62E-03	NP	9.30E-03	PJ	7.62E-03	mg/kg	(5)	(4)
	4,4'-DDE	mg/kg	4.18E-03	9.92E-03	NP	1.50E-02	J	9.92E-03	mg/kg	(5)	(4)
	4,4'-DDT	mg/kg	6.29E-03	1.54E-02	NP	3.20E-02	J	1.54E-02	mg/kg	(5)	(4)
	4-Methyl-2-pentanone	mg/kg	1.64E-01	8.14E-01	NP	1.90E+01		8.14E-01	mg/kg	(5)	(4)
	Acenaphthene	mg/kg	1.02E-02	1.80E-02	NP	2.90E-01		1.80E-02	mg/kg	(5)	(4)
	Acenaphthylene	mg/kg	1.16E-02	2.12E-02	NP	3.20E-01	J	2.12E-02	mg/kg	(5)	(4)
	Acetone	mg/kg	5.93E-02	2.40E-01	NP	4.50E+00	J	2.40E-01	mg/kg	(5)	(4)
	alpha-BHC	mg/kg	1.07E-03	2.07E-03	NP	1.00E-03	J	1.00E-03	mg/kg	(5)	(2)
	alpha-Chlordane	mg/kg	1.99E-03	5.09E-03	NP	1.10E-02	PJ	5.09E-03	mg/kg	(5)	(4)
	Aluminum	mg/kg	5.71E+03	5.99E+03	NP	1.45E+04		5.99E+03	mg/kg	(1)	(3)
	Anthracene	mg/kg	2.40E-02	6.16E-02	NP	2.30E+00	J	6.16E-02	mg/kg	(5)	(4)

TABLE F-3.4: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 4	Antimony	mg/kg	3.96E+00	8.80E+00	NP	1.34E+02	J	8.80E+00	mg/kg	(5)	(4)
	Aroclor-1254	mg/kg	5.93E-02	2.28E-01	NP	1.30E+00	PJ	2.28E-01	mg/kg	(5)	(4)
	Aroclor-1260	mg/kg	2.51E-02	5.67E-02	NP	3.80E-02		3.80E-02	mg/kg	(5)	(2)
	Arsenic	mg/kg	2.89E+00	4.57E+00	NP	2.48E+01		4.57E+00	mg/kg	(5)	(4)
	Barium	mg/kg	6.92E+01	1.01E+02	NP	5.07E+02		1.01E+02	mg/kg	(5)	(3)
	Benzene	mg/kg	2.70E-02	1.19E-01	NP	2.00E-01	J	1.19E-01	mg/kg	(5)	(4)
	Benzo(a)anthracene	mg/kg	6.62E-02	1.28E-01	NP	2.40E+00	J	1.28E-01	mg/kg	(5)	(4)
	Benzo(a)pyrene	mg/kg	8.66E-02	1.65E-01	NP	3.10E+00	J	1.65E-01	mg/kg	(5)	(4)
	Benzo(b)fluoranthene	mg/kg	7.24E-02	1.32E-01	NP	2.50E+00		1.32E-01	mg/kg	(5)	(4)
	Benzo(g,h,i)perylene	mg/kg	7.43E-02	1.58E-01	NP	2.30E+00	J	1.58E-01	mg/kg	(6)	(3)
	Benzo(k)fluoranthene	mg/kg	4.89E-02	9.14E-02	NP	2.00E+00	J	9.14E-02	mg/kg	(5)	(4)
	Beryllium	mg/kg	2.39E+00	5.02E+00	NP	2.90E+00		2.90E+00	mg/kg	(5)	(2)
	Beta-BHC	mg/kg	1.20E-03	2.34E-03	NP	3.50E-03	J	2.34E-03	mg/kg	(5)	(4)
	bis(2-ethylhexyl)phthalate	mg/kg	4.68E-01	8.73E-01	NP	7.60E+00		8.73E-01	mg/kg	(5)	(4)
	Butylbenzylphthalate	mg/kg	4.42E-01	7.82E-01	NP	4.70E-02	J	4.70E-02	mg/kg	(5)	(2)
	Cadmium	mg/kg	3.60E+00	7.52E+00	NP	1.05E+02	J	7.52E+00	mg/kg	(5)	(4)
	Carbazole	mg/kg	5.24E-01	9.98E-01	NP	4.90E+00	J	9.98E-01	mg/kg	(5)	(4)
	Carbon disulfide	mg/kg	2.54E-02	1.23E-01	NP	5.00E-03	J	5.00E-03	mg/kg	(5)	(2)
	Chlorobenzene	mg/kg	2.49E-02	1.20E-01	NP	2.00E-03	J	2.00E-03	mg/kg	(5)	(2)
	Chromium	mg/kg	6.16E+01	1.16E+02	NP	1.53E+03		1.16E+02	mg/kg	(5)	(4)
	Chromium (VI)	mg/kg	6.92E-01	1.66E+00	NP	7.81E+00	J	1.66E+00	mg/kg	(5)	(4)
	Chrysene	mg/kg	9.31E-02	1.73E-01	NP	3.10E+00	J	1.73E-01	mg/kg	(5)	(4)

TABLE F-3.4: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 4	cis-1,2-Dichloroethene	mg/kg	3.96E-01	2.01E+00	NP	7.40E+00		2.01E+00	mg/kg	(5)	(4)
	Cobalt	mg/kg	5.38E+00	6.72E+00	NP	2.63E+01		6.72E+00	mg/kg	(5)	(4)
	Copper	mg/kg	2.31E+01	3.54E+01	NP	3.26E+02		3.54E+01	mg/kg	(5)	(4)
	Cyanide	mg/kg	8.78E-01	1.90E+00	NP	1.86E+01	J	1.90E+00	mg/kg	(5)	(4)
	Dibenzo(a,h)anthracene	mg/kg	1.44E-02	2.46E-02	NP	3.60E-01	J	2.46E-02	mg/kg	(5)	(4)
	Dibenzofuran	mg/kg	4.55E-01	8.02E-01	NP	1.80E+00		8.02E-01	mg/kg	(5)	(4)
	Dieldrin	mg/kg	2.04E-03	4.00E-03	NP	1.70E-03	J	1.70E-03	mg/kg	(5)	(2)
	Diethylphthalate	mg/kg	4.37E-01	7.85E-01	NP	2.50E-01	J	2.50E-01	mg/kg	(5)	(2)
	di-n-Butylphthalate	mg/kg	4.34E-01	7.76E-01	NP	2.30E-01	J	2.30E-01	mg/kg	(5)	(2)
	di-n-Octylphthalate	mg/kg	4.51E-01	7.89E-01	NP	2.10E-02	J	2.10E-02	mg/kg	(5)	(2)
	Endrin Ketone	mg/kg	3.20E-03	8.47E-03	NP	1.60E-02	PJ	8.47E-03	mg/kg	(5)	(4)
	Ethylbenzene	mg/kg	7.76E-02	3.24E-01	NP	8.10E+00		3.24E-01	mg/kg	(5)	(4)
	Fluoranthene	mg/kg	1.34E-01	2.76E-01	NP	6.70E+00	J	2.76E-01	mg/kg	(5)	(4)
	Fluorene	mg/kg	1.31E-02	2.65E-02	NP	6.00E-01	J	2.65E-02	mg/kg	(5)	(4)
	gamma-Chlordane	mg/kg	1.86E-03	4.59E-03	NP	8.60E-03	J	4.59E-03	mg/kg	(5)	(4)
	Heptachlor Epoxide	mg/kg	1.57E-03	3.66E-03	NP	9.10E-03		3.66E-03	mg/kg	(5)	(4)
	Indeno(1,2,3-cd)pyrene	mg/kg	6.65E-02	1.21E-01	NP	1.80E+00	J	1.21E-01	mg/kg	(5)	(4)
	Iron	mg/kg	9.63E+03	1.02E+04	NP	2.85E+04		1.02E+04	mg/kg	(1)	(3)
	Lead	mg/kg	4.69E+01	1.34E+02	NP	2.90E+03		1.34E+02	mg/kg	(5)	(4)
	m,p-Xylene	mg/kg	5.56E-01	2.69E+00	NP	9.30E+00		2.69E+00	mg/kg	(5)	(4)
	Manganese	mg/kg	1.57E+02	1.72E+02	NP	8.64E+02		1.72E+02	mg/kg	(1)	(3)
	Mercury	mg/kg	2.72E+00	5.93E+00	NP	5.30E-01		5.30E-01	mg/kg	(5)	(2)

TABLE F-3.4: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 4	Methoxychlor	mg/kg	1.42E-02	3.35E-02	NP	8.30E-02	PJ	3.35E-02	mg/kg	(5)	(4)
	Methylene chloride	mg/kg	4.08E-02	1.55E-01	NP	2.10E+00	BJ	1.55E-01	mg/kg	(5)	(4)
	Methyl-T-Butyl-Ether	mg/kg	1.59E-01	1.54E+00	NP	4.00E-03	J	4.00E-03	mg/kg	(5)	(2)
	Molybdenum	mg/kg	1.08E+00	1.75E+00	NP	3.10E+00	J	1.75E+00	mg/kg	(5)	(4)
	Naphthalene	mg/kg	1.08E-02	1.92E-02	NP	3.20E-01		1.92E-02	mg/kg	(5)	(4)
	Nickel	mg/kg	5.00E+01	9.35E+01	NP	1.40E+03		9.35E+01	mg/kg	(5)	(3)
	n-Nitroso-di-n-propylamine	mg/kg	4.40E-01	7.80E-01	NP	1.80E-01	J	1.80E-01	mg/kg	(5)	(2)
	n-Nitroso-diphenylamine	mg/kg	4.34E-01	7.80E-01	NP	3.20E-01	J	3.20E-01	mg/kg	(5)	(2)
	o-Xylene	mg/kg	2.91E-01	1.33E+00	NP	4.70E+00		1.33E+00	mg/kg	(5)	(4)
	Pentachlorophenol	mg/kg	1.26E+00	2.18E+00	NP	1.30E-01	J	1.30E-01	mg/kg	(5)	(2)
	Phenanthrene	mg/kg	8.34E-02	2.02E-01	NP	6.30E+00	J	2.02E-01	mg/kg	(5)	(4)
	Phenol	mg/kg	4.48E-01	7.88E-01	NP	7.40E-02	J	7.40E-02	mg/kg	(5)	(2)
	Pyrene	mg/kg	1.65E-01	4.07E-01	NP	8.10E+00	J	4.07E-01	mg/kg	(6)	(3)
	Selenium	mg/kg	1.15E+00	2.30E+00	NP	9.60E+00	J	2.30E+00	mg/kg	(5)	(4)
	Silver	mg/kg	4.47E+00	8.55E+00	NP	8.11E+01	J	8.55E+00	mg/kg	(5)	(4)
	Thallium	mg/kg	1.15E+00	2.36E+00	NP	3.50E+00		2.36E+00	mg/kg	(5)	(4)
	Titanium	mg/kg	3.85E+02	4.21E+02	G	7.29E+02		4.21E+02	mg/kg	(2)	(3)
	Toluene	mg/kg	3.25E-02	1.09E-01	NP	7.10E-01	J	1.09E-01	mg/kg	(5)	(4)
	Trichloroethene	mg/kg	7.36E-02	2.87E-01	NP	6.30E+00		2.87E-01	mg/kg	(5)	(4)
	Vanadium	mg/kg	2.19E+01	2.28E+01	NP	4.04E+01		2.28E+01	mg/kg	(1)	(3)
	Vinyl chloride	mg/kg	3.26E-02	1.29E-01	NP	2.90E-01		1.29E-01	mg/kg	(5)	(4)
	Xylene (Total)	mg/kg	3.28E-02	1.11E-01	NP	1.40E+00	J	1.11E-01	mg/kg	(5)	(4)

TABLE F-3.4: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)	Exposure Point Concentration			
							Value	Units	Statistic [b]	Rationale [c]
Site 4	Zinc	mg/kg	3.85E+01	5.07E+01	NP	2.83E+02	5.07E+01	mg/kg	(5)	(3)

Notes:

See Appendix E for a detailed description of the statistical methods used.

DF	Detection frequency
ft bgs	Feet below ground surface
J	Estimated value
MAX	Maximum detected concentration
mg/kg	Milligrams per kilogram
MVUE	Minimum variance unbiased estimator
n	Sample size
N/A	Not applicable
UCL	One-sided upper confidence limit of the mean. Following Singh, Singh, and Maichle (2004), this can be either a 95, 97.5, or 99 percent UCL.
>	Greater than
≥	Greater than or equal to
a	Distribution Codes: G= gamma, L= lognormal, N= normal, NP= nonparametric
b	Statistic codes: (1) Student's t (UCL95), (2) approximate gamma (UCL95), (3) adjusted gamma (UCL95), (4) Land's H-statistic (UCL95), (5) nonparametric Chebyshev (UCL95), (6) nonparametric Chebyshev (UCL97.5), (7) nonparametric Chebyshev (UCL99), (8) MVUE Chebyshev (UCL95), (9) MVUE Chebyshev (UCL97.5), (10) MVUE Chebyshev (UCL99), (11) Hall's bootstrap, (12) bootstrap t, (13) MAX
c	Rationale codes: (1) n<3, MAX used as default; (2) estimated UCL > MAX, MAX used as default; (3) DF ≥ 85 percent, distribution-dependent equations used to calculate a UCL following Singh, Singh, and Maichle (2004); (4) DF < 85 percent, "bounding" approach used to calculate a UCL following EPA (2002)

TABLE F-3.4: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 4 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

Singh, A., Singh, A.K., and R.W. Maichle. 2004. "ProUCL Version 3.0 User Guide." Prepared for U.S. Environmental Protection Agency, Technical Support Center, Las Vegas, NV. April.

U.S. Environmental Protection Agency (EPA). 2002. "Calculating exposure point concentrations at hazardous waste sites." OSWER 9285.6-10. Office of Emergency and Remedial Response. Washington, DC. December.

TABLE F-3.5: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 11 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 11	2-Methylnaphthalene	mg/kg	9.39E-03	2.67E-02	NP	6.10E-02		2.67E-02	mg/kg	(5)	(4)
	4-Methyl-2-pentanone	mg/kg	1.13E+01	6.03E+01	NP	4.50E+01		4.50E+01	mg/kg	(5)	(2)
	Acenaphthene	mg/kg	2.12E-02	7.18E-02	NP	4.20E-01		7.18E-02	mg/kg	(5)	(4)
	Acenaphthylene	mg/kg	8.48E-03	2.34E-02	NP	6.80E-02		2.34E-02	mg/kg	(5)	(4)
	Aluminum	mg/kg	7.78E+03	9.49E+03	G	2.59E+04		9.49E+03	mg/kg	(2)	(3)
	Anthracene	mg/kg	4.36E-02	1.87E-01	L	1.60E+00		1.87E-01	mg/kg	(8)	(4)
	Antimony	mg/kg	9.29E-01	1.99E+00	NP	2.60E+00		1.99E+00	mg/kg	(5)	(4)
	Aroclor-1254	mg/kg	2.08E-02	7.88E-02	NP	3.00E-02		3.00E-02	mg/kg	(5)	(1)
	Aroclor-1260	mg/kg	1.20E-01	6.15E-01	NP	2.30E-01		2.30E-01	mg/kg	(5)	(1)
	Arsenic	mg/kg	1.94E+00	2.37E+00	N	4.20E+00		2.37E+00	mg/kg	(1)	(3)
	Barium	mg/kg	3.82E+01	4.47E+01	N	7.34E+01	J	4.47E+01	mg/kg	(1)	(3)
	Benzo(a)anthracene	mg/kg	1.72E-01	6.91E-01	L	1.10E+01		6.91E-01	mg/kg	(9)	(3)
	Benzo(a)pyrene	mg/kg	2.12E-01	1.42E+00	NP	4.70E+00		1.42E+00	mg/kg	(7)	(3)
	Benzo(b)fluoranthene	mg/kg	1.70E-01	5.04E-01	L	9.20E+00		5.04E-01	mg/kg	(8)	(3)
	Benzo(g,h,i)perylene	mg/kg	7.15E-02	1.81E-01	L	1.80E+00		1.81E-01	mg/kg	(8)	(3)
	Benzo(k)fluoranthene	mg/kg	8.84E-02	2.50E-01	L	2.30E+00		2.50E-01	mg/kg	(8)	(3)
	Beryllium	mg/kg	8.12E-01	1.02E+00	N	1.80E+00		1.02E+00	mg/kg	(1)	(4)
	Cadmium	mg/kg	1.10E+00	8.07E+00	G	4.32E+00		4.32E+00	mg/kg	(8)	(2)
	Chromium	mg/kg	2.74E+01	4.11E+01	NP	6.98E+01		4.11E+01	mg/kg	(5)	(3)
	Chrysene	mg/kg	1.92E-01	7.42E-01	L	9.90E+00		7.42E-01	mg/kg	(9)	(3)
	Cobalt	mg/kg	9.22E+00	1.18E+01	G	3.61E+01		1.18E+01	mg/kg	(2)	(3)
	Copper	mg/kg	2.33E+01	3.37E+01	G	8.32E+01		3.37E+01	mg/kg	(2)	(3)

TABLE F-3.5: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 11 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)	Exposure Point Concentration			
							Value	Units	Statistic [b]	Rationale [c]
Site 11	Dibenzo(a,h)anthracene	mg/kg	2.12E-02	8.17E-02	L	7.00E-01	8.17E-02	mg/kg	(8)	(4)
	Fluoranthene	mg/kg	3.10E-01	1.27E+00	L	1.50E+01	1.27E+00	mg/kg	(9)	(3)
	Fluorene	mg/kg	2.22E-02	7.38E-02	NP	4.30E-01	7.38E-02	mg/kg	(5)	(4)
	Indeno(1,2,3-cd)pyrene	mg/kg	6.91E-02	2.73E-01	L	1.50E+00	2.73E-01	mg/kg	(8)	(4)
	Iron	mg/kg	1.33E+04	1.54E+04	G	3.22E+04	1.54E+04	mg/kg	(2)	(3)
	Lead	mg/kg	4.09E+01	7.08E+01	G	2.42E+02	7.08E+01	mg/kg	(2)	(3)
	Manganese	mg/kg	2.24E+02	2.72E+02	N	5.58E+02	2.72E+02	mg/kg	(1)	(3)
	Mercury	mg/kg	1.33E-01	2.97E-01	NP	6.30E-01	2.97E-01	mg/kg	(5)	(4)
	Naphthalene	mg/kg	1.03E-02	3.29E-02	L	5.00E-02	3.29E-02	mg/kg	(8)	(4)
	Nickel	mg/kg	2.51E+01	2.98E+01	N	5.12E+01	2.98E+01	mg/kg	(1)	(3)
	Phenanthrene	mg/kg	1.83E-01	7.58E-01	L	8.20E+00	7.58E-01	mg/kg	(9)	(3)
	Pyrene	mg/kg	3.06E-01	1.21E+00	L	1.20E+01	1.21E+00	mg/kg	(9)	(3)
	Selenium	mg/kg	2.03E-01	4.10E-01	NP	2.80E-01	2.80E-01	mg/kg	(5)	(2)
	Silver	mg/kg	2.67E-01	5.82E-01	NP	8.24E-01	5.82E-01	mg/kg	(5)	(4)
	Thallium	mg/kg	2.79E-01	7.46E-01	NP	2.10E+00	7.46E-01	mg/kg	(5)	(4)
	Vanadium	mg/kg	2.96E+01	3.46E+01	G	8.25E+01	3.46E+01	mg/kg	(2)	(3)
	Zinc	mg/kg	4.45E+01	5.87E+01	G	1.96E+02	5.87E+01	mg/kg	(2)	(3)

Notes:

See Appendix E for a detailed description of the statistical methods used.

DF	Detection frequency
ft bgs	Feet below ground surface

TABLE F-3.5: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 11 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

J Estimated value

MAX Maximum detected concentration

mg/kg Milligrams per kilogram

MVUE Minimum variance unbiased estimator

n Sample size

N/A Not applicable

UCL One-sided upper confidence limit of the mean. Following Singh, Singh, and Maichle (2004), this can be either a 95, 97.5, or 99 percent UCL.

> Greater than

≥ Greater than or equal to

a Distribution Codes: G= gamma, L= lognormal, N= normal, NP= nonparametric

b Statistic codes: (1) Student's t (UCL95), (2) approximate gamma (UCL95), (3) adjusted gamma (UCL95), (4) Land's H-statistic (UCL95), (5) nonparametric Chebyshev (UCL95), (6) nonparametric Chebyshev (UCL97.5), (7) nonparametric Chebyshev (UCL99), (8) MVUE Chebyshev (UCL95), (9) MVUE Chebyshev (UCL97.5), (10) MVUE Chebyshev (UCL99), (11) Hall's bootstrap, (12) bootstrap t, (13) MAX

c Rationale codes: (1) n<3, MAX used as default; (2) estimated UCL > MAX, MAX used as default; (3) DF ≥ 85 percent, distribution-dependent equations used to calculate a UCL following Singh, Singh, and Maichle (2004); (4) DF < 85 percent, "bounding" approach used to calculate a UCL following EPA (2002)

Singh, A., Singh, A.K., and R.W. Maichle. 2004. "ProUCL Version 3.0 User Guide." Prepared for U.S. Environmental Protection Agency, Technical Support Center, Las Vegas, NV. April.

U.S. Environmental Protection Agency (EPA). 2002. "Calculating exposure point concentrations at hazardous waste sites." OSWER 9285.6-10. Office of Emergency and Remedial Response. Washington, DC. December.

TABLE F-3.6: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 11 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 11	2,4-Dimethylphenol	mg/kg	2.85E-01	8.59E-01	NP	3.80E-02	J	3.80E-02	mg/kg	(5)	(2)
	2-Methylnaphthalene	mg/kg	1.10E-02	3.27E-02	NP	3.60E-01		3.27E-02	mg/kg	(5)	(4)
	4-Methyl-2-pentanone	mg/kg	6.50E-01	3.42E+00	NP	4.50E+01		3.42E+00	mg/kg	(5)	(4)
	Acenaphthene	mg/kg	3.80E-02	1.50E-01	NP	2.00E+00		1.50E-01	mg/kg	(5)	(4)
	Acenaphthylene	mg/kg	6.98E-03	1.62E-02	NP	6.80E-02		1.62E-02	mg/kg	(5)	(4)
	Aluminum	mg/kg	6.29E+03	6.87E+03	NP	2.59E+04		6.87E+03	mg/kg	(1)	(3)
	Anthracene	mg/kg	1.06E-01	4.08E-01	NP	5.30E+00		4.08E-01	mg/kg	(5)	(4)
	Antimony	mg/kg	1.44E+00	3.91E+00	NP	2.60E+00		2.60E+00	mg/kg	(5)	(2)
	Aroclor-1254	mg/kg	1.32E-02	3.59E-02	NP	3.00E-02		3.00E-02	mg/kg	(5)	(2)
	Aroclor-1260	mg/kg	5.98E-02	2.01E-01	NP	2.30E-01		2.01E-01	mg/kg	(5)	(4)
	Arsenic	mg/kg	1.97E+00	2.50E+00	NP	7.37E+00	J	2.50E+00	mg/kg	(5)	(3)
	Barium	mg/kg	3.71E+01	4.09E+01	L	1.32E+02		4.09E+01	mg/kg	(1)	(3)
	Benzene	mg/kg	7.88E-02	6.66E-01	NP	1.20E-03		1.20E-03	mg/kg	(5)	(2)
	Benzo(a)anthracene	mg/kg	4.41E-01	1.63E+00	NP	1.90E+01		1.63E+00	mg/kg	(5)	(4)
	Benzo(a)pyrene	mg/kg	2.28E-01	7.72E-01	NP	8.80E+00		7.72E-01	mg/kg	(5)	(4)
	Benzo(b)fluoranthene	mg/kg	3.95E-01	1.44E+00	NP	1.70E+01		1.44E+00	mg/kg	(5)	(4)
	Benzo(g,h,i)perylene	mg/kg	9.51E-02	2.84E-01	NP	2.90E+00		2.84E-01	mg/kg	(5)	(4)
	Benzo(k)fluoranthene	mg/kg	1.14E-01	3.49E-01	NP	3.60E+00		3.49E-01	mg/kg	(5)	(4)
	Beryllium	mg/kg	1.30E+00	3.94E+00	NP	2.00E+00		2.00E+00	mg/kg	(5)	(2)
	bis(2-ethylhexyl)phthalate	mg/kg	1.14E-01	2.81E-01	NP	6.20E-01		2.81E-01	mg/kg	(5)	(4)
	Cadmium	mg/kg	1.12E+00	3.74E+00	NP	4.32E+00		3.74E+00	mg/kg	(5)	(4)
	Carbazole	mg/kg	2.41E-01	7.80E-01	NP	9.40E-01	J	7.80E-01	mg/kg	(5)	(4)

TABLE F-3.6: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 11 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 11	Carbon disulfide	mg/kg	9.52E-02	8.02E-01	NP	5.00E-03	J	5.00E-03	mg/kg	(5)	(2)
	Chlorobenzene	mg/kg	8.93E-02	8.02E-01	NP	2.00E-03	J	2.00E-03	mg/kg	(5)	(2)
	Chloroform	mg/kg	8.90E-02	8.01E-01	NP	2.00E-03	J	2.00E-03	mg/kg	(5)	(2)
	Chromium	mg/kg	2.88E+01	3.55E+01	NP	1.28E+02		3.55E+01	mg/kg	(5)	(3)
	Chrysene	mg/kg	3.91E-01	1.37E+00	NP	1.50E+01		1.37E+00	mg/kg	(5)	(4)
	Cobalt	mg/kg	6.90E+00	7.70E+00	NP	3.61E+01		7.70E+00	mg/kg	(1)	(3)
	Copper	mg/kg	1.29E+01	1.90E+01	NP	8.32E+01		1.90E+01	mg/kg	(5)	(3)
	Dibenzo(a,h)anthracene	mg/kg	3.22E-02	1.04E-01	NP	1.10E+00		1.04E-01	mg/kg	(5)	(4)
	Dibenzofuran	mg/kg	1.80E-01	5.30E-01	NP	1.70E-01	J	1.70E-01	mg/kg	(5)	(2)
	di-n-Butylphthalate	mg/kg	1.68E-01	5.18E-01	NP	9.20E-02	J	9.20E-02	mg/kg	(5)	(2)
	Fluoranthene	mg/kg	6.92E-01	4.84E+00	NP	3.00E+01		4.84E+00	mg/kg	(7)	(3)
	Fluorene	mg/kg	4.61E-02	1.90E-01	NP	2.60E+00		1.90E-01	mg/kg	(5)	(4)
	Indeno(1,2,3-cd)pyrene	mg/kg	8.24E-02	2.40E-01	NP	2.40E+00		2.40E-01	mg/kg	(5)	(4)
	Iron	mg/kg	1.15E+04	1.24E+04	NP	3.22E+04		1.24E+04	mg/kg	(1)	(3)
	Lead	mg/kg	1.54E+01	2.91E+01	NP	2.42E+02		2.91E+01	mg/kg	(5)	(4)
	Manganese	mg/kg	1.78E+02	1.97E+02	G	5.58E+02		1.97E+02	mg/kg	(2)	(3)
	Mercury	mg/kg	9.71E-01	3.50E+00	NP	6.30E-01		6.30E-01	mg/kg	(5)	(2)
	Methylene chloride	mg/kg	8.85E-02	7.32E-01	NP	2.50E-02		2.50E-02	mg/kg	(5)	(2)
	Methyl-T-Butyl-Ether	mg/kg	5.85E-01	5.69E+00	NP	7.20E-02		7.20E-02	mg/kg	(5)	(2)
	Molybdenum	mg/kg	6.88E-01	1.37E+00	NP	8.70E-01	J	8.70E-01	mg/kg	(5)	(2)
	Naphthalene	mg/kg	1.35E-02	4.32E-02	NP	5.10E-01		4.32E-02	mg/kg	(5)	(4)
	Nickel	mg/kg	3.14E+01	3.99E+01	NP	1.20E+02		3.99E+01	mg/kg	(5)	(3)

TABLE F-3.6: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 11 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 11	Phenanthrene	mg/kg	4.87E-01	1.91E+00	NP	2.50E+01		1.91E+00	mg/kg	(5)	(4)
	Pyrene	mg/kg	6.18E-01	2.22E+00	NP	2.70E+01		2.22E+00	mg/kg	(5)	(4)
	Selenium	mg/kg	1.95E-01	2.88E-01	NP	4.20E-01	J	2.88E-01	mg/kg	(5)	(4)
	Silver	mg/kg	1.06E+00	3.56E+00	NP	1.80E+00		1.80E+00	mg/kg	(5)	(2)
	Thallium	mg/kg	2.69E-01	4.68E-01	NP	2.60E+00		4.68E-01	mg/kg	(5)	(4)
	Vanadium	mg/kg	2.51E+01	2.70E+01	NP	8.25E+01		2.70E+01	mg/kg	(1)	(3)
	Xylene (Total)	mg/kg	8.35E-02	7.10E-01	NP	2.00E-03	J	2.00E-03	mg/kg	(5)	(2)
	Zinc	mg/kg	3.16E+01	4.30E+01	NP	1.96E+02		4.30E+01	mg/kg	(5)	(3)

Notes:

See Appendix E for a detailed description of the statistical methods used.

DF	Detection frequency
ft bgs	Feet below ground surface
J	Estimated value
MAX	Maximum detected concentration
mg/kg	Milligrams per kilogram
MVUE	Minimum variance unbiased estimator
n	Sample size
N/A	Not applicable
UCL	One-sided upper confidence limit of the mean. Following Singh, Singh, and Maichle (2004), this can be either a 95, 97.5, or 99 percent UCL.
>	Greater than
≥	Greater than or equal to

TABLE F-3.6: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 11 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

a Distribution Codes: G= gamma, L= lognormal, N= normal, NP= nonparametric

b Statistic codes: (1) Student's t (UCL95), (2) approximate gamma (UCL95), (3) adjusted gamma (UCL95), (4) Land's H-statistic (UCL95), (5) nonparametric Chebyshev (UCL95), (6) nonparametric Chebyshev (UCL97.5), (7) nonparametric Chebyshev (UCL99), (8) MVUE Chebyshev (UCL95), (9) MVUE Chebyshev (UCL97.5), (10) MVUE Chebyshev (UCL99), (11) Hall's bootstrap, (12) bootstrap t, (13) MAX

c Rationale codes: (1) n<3, MAX used as default; (2) estimated UCL > MAX, MAX used as default; (3) DF ≥ 85 percent, distribution-dependent equations used to calculate a UCL following Singh, Singh, and Maichle (2004); (4) DF < 85 percent, "bounding" approach used to calculate a UCL following EPA (2002)

Singh, A., Singh, A.K., and R.W. Maichle. 2004. "ProUCL Version 3.0 User Guide." Prepared for U.S. Environmental Protection Agency, Technical Support Center, Las Vegas, NV. April.

U.S. Environmental Protection Agency (EPA). 2002. "Calculating exposure point concentrations at hazardous waste sites." OSWER 9285.6-10. Office of Emergency and Remedial Response. Washington, DC. December.

TABLE F-3.7: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 21 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 21	2-Methylnaphthalene	mg/kg	5.15E-03	1.84E-02	NP	6.30E-02		1.84E-02	mg/kg	(5)	(4)
	4,4'-DDD	mg/kg	4.94E-03	1.43E-02	NP	1.20E-02	J	1.20E-02	mg/kg	(5)	(2)
	4,4'-DDT	mg/kg	1.42E-02	6.22E-02	NP	5.80E-02	J	5.80E-02	mg/kg	(5)	(2)
	Acenaphthene	mg/kg	4.43E-03	1.54E-02	NP	1.00E-02		1.00E-02	mg/kg	(5)	(2)
	Acenaphthylene	mg/kg	3.90E-03	1.52E-02	NP	2.10E-03	J	2.10E-03	mg/kg	(5)	(2)
	Acetone	mg/kg	5.09E-03	1.99E-02	NP	5.00E-03	J	5.00E-03	mg/kg	(5)	(1)
	Aluminum	mg/kg	1.15E+04	1.47E+04	N	2.16E+04	J	1.47E+04	mg/kg	(1)	(3)
	Anthracene	mg/kg	4.09E-03	1.52E-02	NP	1.90E-02		1.52E-02	mg/kg	(5)	(4)
	Antimony	mg/kg	2.09E+00	5.73E+00	NP	1.00E+01	BNJ	5.73E+00	mg/kg	(5)	(4)
	Aroclor-1260	mg/kg	4.23E-02	1.52E-01	NP	1.40E-01	J	1.40E-01	mg/kg	(5)	(2)
	Arsenic	mg/kg	3.72E+00	2.09E+01	G	2.00E+01	NJ	2.00E+01	mg/kg	(8)	(2)
	Barium	mg/kg	8.45E+01	2.33E+02	NP	4.43E+02		2.33E+02	mg/kg	(5)	(3)
	Benzo(a)anthracene	mg/kg	1.09E-02	3.31E-02	L	8.40E-02		3.31E-02	mg/kg	(8)	(4)
	Benzo(a)pyrene	mg/kg	1.75E-02	4.33E-02	NP	8.70E-02		4.33E-02	mg/kg	(5)	(4)
	Benzo(b)fluoranthene	mg/kg	1.38E-02	1.92E-02	G	8.50E-02		1.92E-02	mg/kg	(2)	(3)
	Benzo(g,h,i)perylene	mg/kg	1.77E-02	2.48E-02	G	1.30E-01		2.48E-02	mg/kg	(2)	(3)
	Benzo(k)fluoranthene	mg/kg	1.04E-02	2.58E-02	NP	7.30E-02		2.58E-02	mg/kg	(5)	(4)
	Beryllium	mg/kg	9.31E-01	4.12E+00	G	2.50E+00		2.50E+00	mg/kg	(8)	(2)
	bis(2-ethylhexyl)phthalate	mg/kg	2.37E-01	9.18E-01	NP	5.20E-02	J	5.20E-02	mg/kg	(5)	(2)
	Cadmium	mg/kg	1.44E+00	1.12E+01	L	9.50E+00		9.50E+00	mg/kg	(8)	(2)
	Chromium	mg/kg	2.75E+01	3.56E+01	G	6.70E+01		3.56E+01	mg/kg	(2)	(3)
	Chrysene	mg/kg	2.10E-02	7.03E-02	L	2.70E-01		7.03E-02	mg/kg	(8)	(4)

TABLE F-3.7: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 21 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 21	Cobalt	mg/kg	1.12E+01	1.47E+01	N	2.62E+01		1.47E+01	mg/kg	(1)	(3)
	Copper	mg/kg	4.08E+01	6.64E+01	G	1.48E+02	*J	6.64E+01	mg/kg	(2)	(3)
	Dibenzo(a,h)anthracene	mg/kg	5.81E-03	1.71E-02	NP	2.80E-02		1.71E-02	mg/kg	(5)	(4)
	di-n-Butylphthalate	mg/kg	2.58E-01	9.76E-01	NP	7.10E-02	J	7.10E-02	mg/kg	(5)	(2)
	Fluoranthene	mg/kg	1.23E-02	2.33E-02	L	8.30E-02		2.33E-02	mg/kg	(4)	(3)
	Fluorene	mg/kg	6.27E-03	2.00E-02	NP	7.70E-02		2.00E-02	mg/kg	(5)	(4)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.27E-02	3.82E-02	L	1.30E-01		3.82E-02	mg/kg	(8)	(4)
	Iron	mg/kg	1.90E+04	2.55E+04	G	4.68E+04	J	2.55E+04	mg/kg	(2)	(3)
	Lead	mg/kg	5.42E+01	1.32E+02	G	4.16E+02		1.32E+02	mg/kg	(2)	(3)
	Manganese	mg/kg	3.30E+02	4.87E+02	G	1.19E+03	NJ	4.87E+02	mg/kg	(2)	(3)
	Mercury	mg/kg	3.45E-01	1.26E+00	NP	2.60E+00		1.26E+00	mg/kg	(5)	(4)
	Molybdenum	mg/kg	1.34E+00	3.02E+00	NP	2.80E+00	B	2.80E+00	mg/kg	(5)	(2)
	Naphthalene	mg/kg	4.69E-03	1.62E-02	NP	3.20E-02		1.62E-02	mg/kg	(5)	(4)
	Nickel	mg/kg	2.38E+01	2.99E+01	N	5.06E+01		2.99E+01	mg/kg	(1)	(3)
	Phenanthrene	mg/kg	9.49E-03	2.98E-02	NP	1.60E-01		2.98E-02	mg/kg	(5)	(4)
	Pyrene	mg/kg	1.68E-02	3.12E-02	L	1.40E-01		3.12E-02	mg/kg	(4)	(3)
	Silver	mg/kg	8.03E-01	2.86E+00	NP	5.64E+00		2.86E+00	mg/kg	(5)	(4)
	Thallium	mg/kg	7.68E-01	2.23E+00	NP	2.50E+00		2.23E+00	mg/kg	(5)	(4)
	Vanadium	mg/kg	4.28E+01	5.83E+01	G	9.66E+01		5.83E+01	mg/kg	(2)	(3)
	Zinc	mg/kg	6.90E+01	1.12E+02	G	2.67E+02		1.12E+02	mg/kg	(2)	(3)

Notes:

TABLE F-3.7: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 21 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

See Appendix E for a detailed description of the statistical methods used.

DF	Detection frequency
ft bgs	Feet below ground surface
J	Estimated value
MAX	Maximum detected concentration
mg/kg	Milligrams per kilogram
MVUE	Minimum variance unbiased estimator
n	Sample size
N/A	Not applicable
UCL	One-sided upper confidence limit of the mean. Following Singh, Singh, and Maichle (2004), this can be either a 95, 97.5, or 99 percent UCL.
>	Greater than
≥	Greater than or equal to
a	Distribution Codes: G= gamma, L= lognormal, N= normal, NP= nonparametric
b	Statistic codes: (1) Student's t (UCL95), (2) approximate gamma (UCL95), (3) adjusted gamma (UCL95), (4) Land's H-statistic (UCL95), (5) nonparametric Chebyshev (UCL95), (6) nonparametric Chebyshev (UCL97.5), (7) nonparametric Chebyshev (UCL99), (8) MVUE Chebyshev (UCL95), (9) MVUE Chebyshev (UCL97.5), (10) MVUE Chebyshev (UCL99), (11) Hall's bootstrap, (12) bootstrap t, (13) MAX
c	Rationale codes: (1) n<3, MAX used as default; (2) estimated UCL > MAX, MAX used as default; (3) DF ≥ 85 percent, distribution-dependent equations used to calculate a UCL following Singh, Singh, and Maichle (2004); (4) DF < 85 percent, "bounding" approach used to calculate a UCL following EPA (2002)

Singh, A., Singh, A.K., and R.W. Maichle. 2004. "ProUCL Version 3.0 User Guide." Prepared for U.S. Environmental Protection Agency, Technical Support Center, Las Vegas, NV. April.

U.S. Environmental Protection Agency (EPA). 2002. "Calculating exposure point concentrations at hazardous waste sites." OSWER 9285.6-10. Office of Emergency and Remedial Response.

TABLE F-3.7: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 21 SURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Surface Soil (0-2 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

Washington, DC. December.

TABLE F-3.8: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 21 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 21	2-Methylnaphthalene	mg/kg	3.35E-03	1.01E-02	NP	6.30E-02		1.01E-02	mg/kg	(5)	(4)
	4,4'-DDD	mg/kg	3.21E-03	7.36E-03	NP	1.20E-02	J	7.36E-03	mg/kg	(5)	(4)
	4,4'-DDT	mg/kg	6.28E-03	2.30E-02	NP	5.80E-02	J	2.30E-02	mg/kg	(5)	(4)
	4-Bromophenyl-phenylether	mg/kg	4.52E-01	2.11E+00	NP	2.00E-02	J	2.00E-02	mg/kg	(5)	(2)
	4-Chlorophenyl-phenylether	mg/kg	4.59E-01	2.10E+00	NP	2.90E-02	J	2.90E-02	mg/kg	(5)	(2)
	4-Methyl-2-pentanone	mg/kg	9.57E-03	2.79E-02	NP	1.60E-01		2.79E-02	mg/kg	(5)	(4)
	Acenaphthene	mg/kg	3.49E-03	9.12E-03	NP	1.00E-02		9.12E-03	mg/kg	(5)	(4)
	Acenaphthylene	mg/kg	3.12E-03	8.84E-03	NP	5.80E-03	J	5.80E-03	mg/kg	(5)	(2)
	Acetone	mg/kg	7.79E-03	1.43E-02	NP	1.20E-02	J	1.20E-02	mg/kg	(5)	(2)
	Aluminum	mg/kg	8.12E+03	9.33E+03	G	2.16E+04	J	9.33E+03	mg/kg	(2)	(3)
	Anthracene	mg/kg	3.46E-03	9.13E-03	NP	1.90E-02		9.13E-03	mg/kg	(5)	(4)
	Antimony	mg/kg	1.67E+00	5.61E+00	NP	1.00E+01	BNJ	5.61E+00	mg/kg	(5)	(4)
	Aroclor-1260	mg/kg	2.62E-02	6.66E-02	NP	1.40E-01	J	6.66E-02	mg/kg	(5)	(4)
	Arsenic	mg/kg	3.33E+00	5.94E+00	NP	2.00E+01	NJ	5.94E+00	mg/kg	(5)	(4)
	Barium	mg/kg	7.08E+01	1.30E+02	NP	4.43E+02		1.30E+02	mg/kg	(5)	(3)
	Benzo(a)anthracene	mg/kg	8.42E-03	2.03E-02	L	8.40E-02		2.03E-02	mg/kg	(8)	(4)
	Benzo(a)pyrene	mg/kg	1.18E-02	2.89E-02	L	1.30E-01		2.89E-02	mg/kg	(8)	(4)
	Benzo(b)fluoranthene	mg/kg	1.21E-02	1.81E-02	L	1.50E-01		1.81E-02	mg/kg	(4)	(3)
	Benzo(g,h,i)perylene	mg/kg	1.54E-02	2.30E-02	L	1.50E-01		2.30E-02	mg/kg	(4)	(3)
	Benzo(k)fluoranthene	mg/kg	8.09E-03	1.65E-02	NP	7.30E-02		1.65E-02	mg/kg	(5)	(4)
	Beryllium	mg/kg	1.25E+00	4.90E+00	NP	2.50E+00		2.50E+00	mg/kg	(5)	(2)
	bis(2-ethylhexyl)phthalate	mg/kg	3.20E-01	1.36E+00	NP	9.60E-02	J	9.60E-02	mg/kg	(5)	(2)

TABLE F-3.8: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 21 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 21	Cadmium	mg/kg	1.10E+00	4.92E+00	NP	9.50E+00		4.92E+00	mg/kg	(5)	(4)
	Carbazole	mg/kg	8.99E-01	4.02E+00	NP	2.00E+01		4.02E+00	mg/kg	(5)	(4)
	Carbon disulfide	mg/kg	4.60E-03	7.63E-03	NP	2.00E-03	J	2.00E-03	mg/kg	(5)	(2)
	Chloroform	mg/kg	4.70E-03	7.76E-03	NP	5.40E-03	J	5.40E-03	mg/kg	(5)	(2)
	Chromium	mg/kg	3.11E+01	3.42E+01	N	6.70E+01		3.42E+01	mg/kg	(1)	(3)
	Chrysene	mg/kg	1.37E-02	2.23E-02	L	2.70E-01		2.23E-02	mg/kg	(4)	(3)
	Cobalt	mg/kg	8.68E+00	1.01E+01	G	2.62E+01		1.01E+01	mg/kg	(2)	(3)
	Copper	mg/kg	2.26E+01	4.21E+01	NP	1.48E+02	*J	4.21E+01	mg/kg	(5)	(3)
	Dibenzo(a,h)anthracene	mg/kg	4.55E-03	1.05E-02	NP	2.80E-02		1.05E-02	mg/kg	(5)	(4)
	Dibenzofuran	mg/kg	4.19E-01	1.47E+00	NP	3.90E+00	J	1.47E+00	mg/kg	(5)	(4)
	Diethylphthalate	mg/kg	4.47E-01	2.17E+00	NP	5.60E-02	J	5.60E-02	mg/kg	(5)	(2)
	Dimethylphthalate	mg/kg	4.59E-01	2.14E+00	NP	7.30E-02	J	7.30E-02	mg/kg	(5)	(2)
	di-n-Butylphthalate	mg/kg	4.50E-01	2.14E+00	NP	8.00E-02	J	8.00E-02	mg/kg	(5)	(2)
	Ethylbenzene	mg/kg	4.90E-03	8.35E-03	NP	2.10E-02		8.35E-03	mg/kg	(5)	(4)
	Fluoranthene	mg/kg	1.30E-02	2.05E-02	L	1.70E-01		2.05E-02	mg/kg	(4)	(3)
	Fluorene	mg/kg	4.41E-03	1.14E-02	NP	7.70E-02		1.14E-02	mg/kg	(5)	(4)
	Indeno(1,2,3-cd)pyrene	mg/kg	1.16E-02	2.29E-02	NP	1.30E-01		2.29E-02	mg/kg	(5)	(4)
	Iron	mg/kg	1.54E+04	1.76E+04	G	4.68E+04	J	1.76E+04	mg/kg	(2)	(3)
	Lead	mg/kg	2.01E+01	3.70E+01	L	4.16E+02		3.70E+01	mg/kg	(4)	(3)
	Manganese	mg/kg	2.83E+02	5.09E+02	NP	1.69E+03	J	5.09E+02	mg/kg	(5)	(3)
	Mercury	mg/kg	8.52E-01	4.61E+00	NP	2.60E+00		2.60E+00	mg/kg	(5)	(2)
	Molybdenum	mg/kg	1.00E+00	2.00E+00	NP	3.30E+00	B	2.00E+00	mg/kg	(5)	(4)

TABLE F-3.8: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 21 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Site 21	Naphthalene	mg/kg	3.44E-03	9.49E-03	NP	3.20E-02		9.49E-03	mg/kg	(5)	(4)
	Nickel	mg/kg	3.52E+01	5.26E+01	NP	1.50E+02		5.26E+01	mg/kg	(5)	(3)
	n-Nitroso-diphenylamine	mg/kg	4.37E-01	2.08E+00	NP	4.90E-02	J	4.90E-02	mg/kg	(5)	(2)
	o-Xylene	mg/kg	6.30E-03	2.25E-02	NP	4.90E-02		2.25E-02	mg/kg	(5)	(4)
	Phenanthrene	mg/kg	7.59E-03	2.11E-02	NP	1.60E-01		2.11E-02	mg/kg	(6)	(4)
	Pyrene	mg/kg	1.73E-02	2.68E-02	L	1.50E-01	J	2.68E-02	mg/kg	(4)	(3)
	Selenium	mg/kg	3.18E-01	7.44E-01	NP	6.20E-01	J	6.20E-01	mg/kg	(5)	(2)
	Silver	mg/kg	1.01E+00	4.71E+00	NP	5.64E+00		4.71E+00	mg/kg	(5)	(4)
	Thallium	mg/kg	6.04E-01	1.29E+00	NP	2.60E+00		1.29E+00	mg/kg	(5)	(4)
	Toluene	mg/kg	4.66E-03	7.59E-03	NP	1.10E-02	J	7.59E-03	mg/kg	(5)	(4)
	Trichloroethene	mg/kg	4.53E-03	7.50E-03	NP	5.00E-03	J	5.00E-03	mg/kg	(5)	(2)
	Vanadium	mg/kg	3.28E+01	3.74E+01	G	9.66E+01		3.74E+01	mg/kg	(2)	(3)
	Xylene (Total)	mg/kg	8.45E-03	2.16E-02	NP	1.00E-01		2.16E-02	mg/kg	(5)	(4)
	Zinc	mg/kg	4.33E+01	7.54E+01	NP	2.67E+02		7.54E+01	mg/kg	(5)	(3)

Notes:

See Appendix E for a detailed description of the statistical methods used.

DF	Detection frequency
ft bgs	Feet below ground surface
J	Estimated value
MAX	Maximum detected concentration
mg/kg	Milligrams per kilogram

TABLE F-3.8: EXPOSURE POINT CONCENTRATION SUMMARY, SITE 21 SUBSURFACE SOIL

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Subsurface Soil (0-8 ft bgs)
Exposure Medium:	Soil

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

MVUE Minimum variance unbiased estimator

n Sample size

N/A Not applicable

UCL One-sided upper confidence limit of the mean. Following Singh, Singh, and Maichle (2004), this can be either a 95, 97.5, or 99 percent UCL.

> Greater than

≥ Greater than or equal to

a Distribution Codes: G= gamma, L= lognormal, N= normal, NP= nonparametric

b Statistic codes: (1) Student's t (UCL95), (2) approximate gamma (UCL95), (3) adjusted gamma (UCL95), (4) Land's H-statistic (UCL95), (5) nonparametric Chebyshev (UCL95), (6) nonparametric Chebyshev (UCL97.5), (7) nonparametric Chebyshev (UCL99), (8) MVUE Chebyshev (UCL95), (9) MVUE Chebyshev (UCL97.5), (10) MVUE Chebyshev (UCL99), (11) Hall's bootstrap, (12) bootstrap t, (13) MAX

c Rationale codes: (1) n<3, MAX used as default; (2) estimated UCL > MAX, MAX used as default; (3) DF ≥ 85 percent, distribution-dependent equations used to calculate a UCL following Singh, Singh, and Maichle (2004); (4) DF < 85 percent, "bounding" approach used to calculate a UCL following EPA (2002)

Singh, A., Singh, A.K., and R.W. Maichle. 2004. "ProUCL Version 3.0 User Guide." Prepared for U.S. Environmental Protection Agency, Technical Support Center, Las Vegas, NV. April.

U.S. Environmental Protection Agency (EPA). 2002. "Calculating exposure point concentrations at hazardous waste sites." OSWER 9285.6-10. Office of Emergency and Remedial Response. Washington, DC. December.

TABLE F-3.9: EXPOSURE POINT CONCENTRATION SUMMARY, GROUNDWATER - PLUME 1

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 1
Exposure Medium:	Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Plume 1 - Future Tap Water	1,1,1-Trichloroethane	mg/l	7.46E-03	2.23E-02	NP	1.20E+00		2.23E-02	mg/l	(5)	(4)
	1,1,2-Trichloroethane	mg/l	5.27E-03	1.06E-02	NP	2.60E-01		1.06E-02	mg/l	(5)	(4)
	1,1-Dichlorethane	mg/l	4.78E-02	1.08E-01	NP	2.90E+00		1.08E-01	mg/l	(5)	(4)
	1,1-Dichlorethene	mg/l	2.54E-01	5.89E-01	NP	2.00E+01		5.89E-01	mg/l	(5)	(4)
	1,2,4-Trimethylbenzene	mg/l	2.61E-03	1.13E-02	NP	4.60E-02		1.13E-02	mg/l	(5)	(4)
	1,2-Dichlorobenzene	mg/l	6.84E-03	1.34E-02	NP	2.40E-01		1.34E-02	mg/l	(5)	(4)
	1,2-Dichloroethane	mg/l	6.09E-03	1.25E-02	NP	3.50E-01		1.25E-02	mg/l	(5)	(4)
	1,2-Dichloroethene (Total)	mg/l	1.00E-01	2.94E-01	NP	5.20E+00		2.94E-01	mg/l	(5)	(4)
	1,2-Dichloropropane	mg/l	2.35E-03	7.04E-03	NP	1.00E-04	J	1.00E-04	mg/l	(5)	(2)
	1,3,5-Trimethylbenzene	mg/l	2.22E-03	1.06E-02	NP	2.00E-02		1.06E-02	mg/l	(5)	(4)
	1,3-Dichlorobenzene	mg/l	2.30E-03	5.35E-03	NP	4.50E-03		4.50E-03	mg/l	(5)	(2)
	1,4-Dichlorobenzene	mg/l	3.10E-03	6.42E-03	NP	4.80E-02		6.42E-03	mg/l	(5)	(4)
	2-Butanone	mg/l	1.65E-02	8.77E-02	NP	7.10E-02	J	7.10E-02	mg/l	(5)	(2)
	2-Hexanone	mg/l	1.53E-02	8.72E-02	NP	2.00E-03	J	2.00E-03	mg/l	(5)	(2)
	2-Methylnaphthalene	mg/l	4.35E-03	6.43E-03	NP	7.00E-04	J	7.00E-04	mg/l	(5)	(2)
	4-Methyl-2-pentanone	mg/l	1.52E-02	8.41E-02	NP	2.90E-02	J	2.90E-02	mg/l	(5)	(2)
	Acenaphthene	mg/l	3.61E-03	5.52E-03	NP	2.00E-03	J	2.00E-03	mg/l	(5)	(2)
	Acenaphthylene	mg/l	3.24E-03	5.25E-03	NP	2.00E-03		2.00E-03	mg/l	(5)	(2)
	Acetone	mg/l	3.54E-01	1.65E+00	NP	6.30E+01	J	1.65E+00	mg/l	(5)	(4)
	Aluminum	mg/l	2.81E-01	9.88E-01	NP	9.22E+00		9.88E-01	mg/l	(5)	(4)
	Antimony	mg/l	5.03E-03	1.43E-02	NP	1.04E-01	J	1.43E-02	mg/l	(5)	(4)
	Arsenic	mg/l	1.04E-02	1.98E-02	NP	8.30E-02		1.98E-02	mg/l	(5)	(4)

TABLE F-3.9: EXPOSURE POINT CONCENTRATION SUMMARY, GROUNDWATER - PLUME 1

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 1
Exposure Medium:	Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Plume 1 - Future Tap Water	Barium	mg/l	1.57E-01	2.70E-01	NP	8.80E-01	J	2.70E-01	mg/l	(5)	(3)
	Benzene	mg/l	6.07E-03	1.59E-02	NP	5.50E-01		1.59E-02	mg/l	(5)	(4)
	Benzo(a)anthracene	mg/l	3.03E-03	5.13E-03	NP	1.00E-04	J	1.00E-04	mg/l	(5)	(2)
	Benzo(a)pyrene	mg/l	9.36E-04	2.05E-03	NP	1.00E-04	J	1.00E-04	mg/l	(5)	(2)
	Beryllium	mg/l	8.29E-04	1.41E-03	NP	3.60E-03	J	1.41E-03	mg/l	(5)	(4)
	bis(2-ethylhexyl)phthalate	mg/l	3.25E-03	7.09E-03	NP	3.30E-02		7.09E-03	mg/l	(5)	(4)
	Bromodichloromethane	mg/l	2.39E-03	7.10E-03	NP	1.00E-02	J	7.10E-03	mg/l	(5)	(4)
	Cadmium	mg/l	4.34E-03	1.60E-02	NP	1.83E-01		1.60E-02	mg/l	(5)	(4)
	Carbon disulfide	mg/l	2.52E-03	7.53E-03	NP	1.70E-02	J	7.53E-03	mg/l	(5)	(4)
	Chlorobenzene	mg/l	2.63E-03	6.07E-03	NP	2.60E-02		6.07E-03	mg/l	(5)	(4)
	Chloroethane	mg/l	4.75E-03	1.23E-02	NP	5.60E-01		1.23E-02	mg/l	(5)	(4)
	Chloroform	mg/l	2.57E-03	7.44E-03	NP	3.40E-02		7.44E-03	mg/l	(5)	(4)
	Chloromethane	mg/l	2.87E-03	7.26E-03	NP	1.00E-02		7.26E-03	mg/l	(5)	(4)
	Chromium	mg/l	4.23E-02	1.52E-01	NP	1.54E+00		1.52E-01	mg/l	(5)	(4)
	Chromium (VI)	mg/l	1.69E-01	4.72E-01	NP	1.02E+00	J	4.72E-01	mg/l	(5)	(4)
	cis-1,2-Dichloroethene	mg/l	2.91E-02	5.55E-02	NP	8.60E-01		5.55E-02	mg/l	(5)	(4)
	Cobalt	mg/l	5.43E-03	1.51E-02	NP	1.14E-01		1.51E-02	mg/l	(5)	(4)
	Copper	mg/l	4.88E-03	1.24E-02	L	1.44E-01		1.24E-02	mg/l	(8)	(4)
	Cyanide	mg/l	2.72E-02	1.30E-01	G	6.60E-02		6.60E-02	mg/l	(8)	(2)
	Ethylbenzene	mg/l	3.29E-03	7.18E-03	NP	1.50E-01		7.18E-03	mg/l	(5)	(4)
	Fluoranthene	mg/l	3.06E-03	5.12E-03	NP	1.80E-03	J	1.80E-03	mg/l	(5)	(2)
	Fluorene	mg/l	3.05E-03	5.13E-03	NP	1.00E-03	J	1.00E-03	mg/l	(5)	(2)

TABLE F-3.9: EXPOSURE POINT CONCENTRATION SUMMARY, GROUNDWATER - PLUME 1

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 1
Exposure Medium:	Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Plume 1 - Future Tap Water	Hexachlorobutadiene	mg/l	3.19E-03	8.27E-03	NP	4.00E-04	J	4.00E-04	mg/l	(5)	(2)
	Iron	mg/l	3.11E+00	1.70E+01	L	4.14E+01		1.70E+01	mg/l	(8)	(4)
	Isopropylbenzene	mg/l	2.22E-03	1.20E-02	NP	5.50E-03		5.50E-03	mg/l	(5)	(2)
	Lead	mg/l	3.01E-03	7.38E-03	NP	5.80E-02		7.38E-03	mg/l	(5)	(4)
	m,p-Xylene	mg/l	4.35E-03	1.32E-02	NP	4.70E-01		1.32E-02	mg/l	(5)	(4)
	Manganese	mg/l	3.12E+00	9.91E+00	L	2.84E+01		9.91E+00	mg/l	(8)	(3)
	Mercury	mg/l	7.94E-05	1.21E-04	NP	4.40E-05	J	4.40E-05	mg/l	(5)	(2)
	Methylene chloride	mg/l	3.84E-03	9.90E-03	NP	7.50E-02	J	9.90E-03	mg/l	(5)	(4)
	Methyl-T-Butyl-Ether	mg/l	3.09E-03	6.97E-03	NP	3.50E-02		6.97E-03	mg/l	(5)	(4)
	Molybdenum	mg/l	2.71E-02	7.50E-02	NP	3.90E-01		7.50E-02	mg/l	(5)	(4)
	Naphthalene	mg/l	9.62E-03	3.35E-02	NP	1.70E+00		3.35E-02	mg/l	(5)	(4)
	n-Butylbenzene	mg/l	2.25E-03	1.17E-02	NP	2.40E-03		2.40E-03	mg/l	(5)	(2)
	Nickel	mg/l	6.42E-02	1.83E-01	NP	1.55E+00		1.83E-01	mg/l	(5)	(4)
	n-Propylbenzene	mg/l	2.60E-03	1.22E-02	NP	1.80E-02		1.22E-02	mg/l	(5)	(4)
	o-Xylene	mg/l	2.48E-03	6.86E-03	NP	2.70E-02		6.86E-03	mg/l	(5)	(4)
	Phenanthrene	mg/l	3.06E-03	5.16E-03	NP	2.00E-03	J	2.00E-03	mg/l	(5)	(2)
	Phenol	mg/l	4.53E-03	6.60E-03	NP	1.30E-02	J	6.60E-03	mg/l	(5)	(4)
	p-Isopropyltoluene	mg/l	2.08E-03	1.18E-02	NP	8.00E-04	J	8.00E-04	mg/l	(5)	(2)
	Pyrene	mg/l	2.99E-03	5.11E-03	NP	3.00E-03	J	3.00E-03	mg/l	(5)	(2)
	sec-Butylbenzene	mg/l	2.14E-03	1.17E-02	NP	5.00E-04		5.00E-04	mg/l	(5)	(2)
	Selenium	mg/l	4.02E-03	1.08E-02	NP	6.50E-02		1.08E-02	mg/l	(5)	(4)
	Silver	mg/l	2.28E-03	5.48E-03	NP	4.12E-02	J	5.48E-03	mg/l	(5)	(4)

TABLE F-3.9: EXPOSURE POINT CONCENTRATION SUMMARY, GROUNDWATER - PLUME 1

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 1
Exposure Medium:	Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)		Exposure Point Concentration			
								Value	Units	Statistic [b]	Rationale [c]
Plume 1 - Future Tap Water	Tert-Butanol	mg/l	9.48E-02	4.21E-01	NP	5.00E-01		4.21E-01	mg/l	(5)	(4)
	tert-Butylbenzene	mg/l	2.07E-03	1.17E-02	NP	3.00E-04		3.00E-04	mg/l	(5)	(2)
	Tetrachloroethene	mg/l	2.50E-03	5.84E-03	NP	1.40E-02		5.84E-03	mg/l	(5)	(4)
	Thallium	mg/l	2.69E-03	8.12E-03	NP	6.92E-02	J	8.12E-03	mg/l	(5)	(4)
	Toluene	mg/l	2.88E-03	6.35E-03	NP	4.50E-02		6.35E-03	mg/l	(5)	(4)
	trans-1,2-Dichloroethene	mg/l	5.87E-03	1.16E-02	NP	1.30E-01		1.16E-02	mg/l	(5)	(4)
	Trichloroethene	mg/l	4.99E-01	1.00E+00	NP	3.30E+01		1.00E+00	mg/l	(5)	(4)
	Vanadium	mg/l	8.81E-03	2.85E-02	L	1.56E-01		2.85E-02	mg/l	(8)	(4)
	Vinyl chloride	mg/l	9.50E-03	2.54E-02	NP	1.40E+00		2.54E-02	mg/l	(5)	(4)
	Xylene (Total)	mg/l	5.68E-03	1.75E-02	NP	3.20E-01	J	1.75E-02	mg/l	(5)	(4)
	Zinc	mg/l	4.46E-02	1.50E-01	NP	1.46E+00	J	1.50E-01	mg/l	(5)	(4)

Notes:

See Appendix E for a detailed description of the statistical methods used.

DF	Detection frequency
ft bgs	Feet below ground surface
J	Estimated value
MAX	Maximum detected concentration
mg/kg	Milligrams per kilogram
MVUE	Minimum variance unbiased estimator
n	Sample size
N/A	Not applicable

TABLE F-3.9: EXPOSURE POINT CONCENTRATION SUMMARY, GROUNDWATER - PLUME 1

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 1
Exposure Medium:	Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

UCL One-sided upper confidence limit of the mean. Following Singh, Singh, and Maichle (2004), this can be either a 95, 97.5, or 99 percent UCL.

> Greater than

≥ Greater than or equal to

a Distribution Codes: G= gamma, L= lognormal, N= normal, NP= nonparametric

b Statistic codes: (1) Student's t (UCL95), (2) approximate gamma (UCL95), (3) adjusted gamma (UCL95), (4) Land's H-statistic (UCL95), (5) nonparametric Chebyshev (UCL95), (6) nonparametric Chebyshev (UCL97.5), (7) nonparametric Chebyshev (UCL99), (8) MVUE Chebyshev (UCL95), (9) MVUE Chebyshev (UCL97.5), (10) MVUE Chebyshev (UCL99), (11) Hall's bootstrap, (12) bootstrap t, (13) MAX

c Rationale codes: (1) n<3, MAX used as default; (2) estimated UCL > MAX, MAX used as default; (3) DF ≥ 85 percent, distribution-dependent equations used to calculate a UCL following Singh, Singh, and Maichle (2004); (4) DF < 85 percent, "bounding" approach used to calculate a UCL following EPA (2002)

Singh, A., Singh, A.K., and R.W. Maichle. 2004. "ProUCL Version 3.0 User Guide." Prepared for U.S. Environmental Protection Agency, Technical Support Center, Las Vegas, NV. April.

U.S. Environmental Protection Agency (EPA). 2002. "Calculating exposure point concentrations at hazardous waste sites." OSWER 9285.6-10. Office of Emergency and Remedial Response. Washington, DC. December.

TABLE F-3.10: EXPOSURE POINT CONCENTRATION SUMMARY, GROUNDWATER - PLUME 2

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 2
Exposure Medium:	Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]		Maximum Concentration (Qualifier)	Exposure Point Concentration			
							Value	Units	Statistic [b]	Rationale [c]
Plume 2 - Future Tap Water	Lead	mg/l	1.61E-01	1.65E+00	L	2.10E-01	2.10E-01	mg/l	(8)	(2)

Notes:

See Appendix E for a detailed description of the statistical methods used.

DF	Detection frequency
ft bgs	Feet below ground surface
J	Estimated value
MAX	Maximum detected concentration
mg/kg	Milligrams per kilogram
MVUE	Minimum variance unbiased estimator
n	Sample size
N/A	Not applicable
UCL	One-sided upper confidence limit of the mean. Following Singh, Singh, and Maichle (2004), this can be either a 95, 97.5, or 99 percent UCL.
>	Greater than
≥	Greater than or equal to
a	Distribution Codes: G= gamma, L= lognormal, N= normal, NP= nonparametric
b	Statistic codes: (1) Student's t (UCL95), (2) approximate gamma (UCL95), (3) adjusted gamma (UCL95), (4) Land's H-statistic (UCL95), (5) nonparametric Chebyshev (UCL95), (6) nonparametric Chebyshev (UCL97.5), (7) nonparametric Chebyshev (UCL99), (8) MVUE Chebyshev (UCL95), (9) MVUE Chebyshev (UCL97.5), (10) MVUE Chebyshev (UCL99), (11) Hall's bootstrap, (12) bootstrap t, (13) MAX
c	Rationale codes: (1) n<3, MAX used as default; (2) estimated UCL > MAX, MAX used as default; (3) DF ≥ 85 percent, distribution-dependent equations used to calculate a UCL following Singh, Singh, and Maichle (2004); (4) DF < 85 percent, "bounding" approach used to calculate

TABLE F-3.10: EXPOSURE POINT CONCENTRATION SUMMARY, GROUNDWATER - PLUME 2

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Current/Future
Medium:	Groundwater - Plume 2
Exposure Medium:	Groundwater

Exposure Point	Chemical of Potential Concern	Units	Arithmetic Mean	95% UCL (Distribution) [a]	Maximum Concentration (Qualifier)	Exposure Point Concentration			
						Value	Units	Statistic [b]	Rationale [c]

a UCL following EPA (2002)

Singh, A., Singh, A.K., and R.W. Maichle. 2004. "ProUCL Version 3.0 User Guide." Prepared for U.S. Environmental Protection Agency, Technical Support Center, Las Vegas, NV. April.

U.S. Environmental Protection Agency (EPA). 2002. "Calculating exposure point concentrations at hazardous waste sites." OSWER 9285.6-10. Office of Emergency and Remedial Response. Washington, DC. December.

TABLE F-4.1: VALUES USED FOR DAILY INTAKE RME SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Ingestion	Commercial/ Industrial Worker	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x IRS x EF x ED x MCF) / (BW x AT)
				IRS	Ingestion Rate - Soil	100	mg/day	EPA 2001; EPA 2004b	
				FI	Fraction Ingested	1	unitless	Professional judgment	
				EF	Exposure Frequency	250	days/year	EPA 1991	
				ED	Exposure Duration	25	years	EPA 1991	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	9,125	days	EPA 1989	
	Construction Worker	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x IRS x EF x ED x MCF) / (BW x AT)
				IRS	Ingestion Rate - Soil	330	mg/day	EPA 2001	
				FI	Fraction Ingested	1	unitless	Professional judgment	
				EF	Exposure Frequency	250	days/year	EPA 1991	
				ED	Exposure Duration	1	years	DTSC 2000	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	365	days	EPA 1989	
	Resident	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x IRS x EF x ED x MCF) / (BW x AT)
				IRS	Ingestion Rate - Soil	100	mg/day	EPA 1991	
				FI	Fraction Ingested	1	unitless	Professional judgment	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	24	years	EPA 1991	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	8,760	days	EPA 1989	

TABLE F-4.1: VALUES USED FOR DAILY INTAKE RME SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Ingestion (Continued)	Resident (Continued)	Child	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x IRS x EF x ED x MCF) / (BW x AT)
				IRS	Ingestion Rate - Soil	200	mg/day	EPA 1991	
				FI	Fraction Ingested	1	unitless	Professional judgment	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	
Dermal	Commercial/ Industrial Worker	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x ABS x SA x AF x EF x ED x MCF) / (BW x AT)
				ABS	Dermal Absorption Factor	Chemical-specific	unitless	EPA 2004a	
				SA	Exposed Skin Surface Area	3,300	cm^2	EPA 2004a	
				AF	Soil to Skin Adherence Factor	0.2	mg/cm^2	EPA 2004a	
				EF	Exposure Frequency	250	days/year	EPA 1991	
				ED	Exposure Duration	25	years	EPA 1991	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	9,125	days	EPA 1989	
	Construction Worker	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x ABS x SA x AF x EF x ED x MCF) / (BW x AT)
				ABS	Dermal Absorption Factor	Chemical-specific	unitless	EPA 2004a	
				SA	Exposed Skin Surface Area	3,300	cm^2	DTSC 2000	
				AF	Soil to Skin Adherence Factor	0.8	mg/cm^2	DTSC 2000	
				EF	Exposure Frequency	250	days/year	EPA 1991	
				ED	Exposure Duration	1	years	DTSC 2000	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	365	days	EPA 1989	

TABLE F-4.1: VALUES USED FOR DAILY INTAKE RME SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Dermal (continued)	Resident	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x ABS x SA x AF x EF x ED x MCF) / (BW x AT)
				ABS	Dermal Absorption Factor	Chemical-specific	unitless	EPA 2004b	
				SA	Exposed Skin Surface Area	5,700	cm^2	EPA 2004b	
				AF	Soil to Skin Adherence Factor	0.07	mg/cm^2	EPA 2004b	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	24	years	EPA 1991	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	8,760	days	EPA 1989	
		Child	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x ABS x SA x AF x EF x ED x MCF) / (BW x AT)
				ABS	Dermal Absorption Factor	Chemical-specific	unitless	EPA 2004b	
				SA	Exposed Skin Surface Area	2,800	cm^2	EPA 2004b	
				AF	Soil to Skin Adherence Factor	0.2	mg/cm^2	EPA 2004b	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	
Ingestion of Homegrown Produce	Resident	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x UF x IRS x EF x ED) / (BW x AT)
				UF	Uptake Factor	Chemical-specific	unitless	DTSC 1993; EPA 1996	
				FI	Fraction Ingested	0.4	unitless	EPA 1996	
				IRS	Intake Rate	0.0812	kg/day	EPA 1997	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	24	years	EPA 1991	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Non-cancer	8,760	days	EPA 1989	

TABLE F-4.1: VALUES USED FOR DAILY INTAKE RME SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Ingestion of Homegrown Produce (Continued)	Resident (Continued)	Child	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x UF x IRS x EF x ED) / (BW x AT)
				UF	Uptake Factor	Chemical-specific	unitless	DTSC 1993; EPA 1996	
				FI	Fraction Ingested	0.4	unitless	EPA 1996	
				IRS	Intake Rate	0.0174	kg/day	EPA 1997	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Non-cancer	2,190	days	EPA 1989	
Inhalation	Commercial/ Industrial Worker	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	Chemical-specific	mg/m^3	Calculated from CS	Intake (mg/kg-day) = (CA x InhR x ET x EF x ED) / (BW x AT)
				InhR	Inhalation Rate	2.50	m^3/hour	EPA 1991	where CA= CS / PEF for particulates, and
				ET	Exposure Time	8	hours/day	EPA 1991	CA= CS / VF for volatiles
				EF	Exposure Frequency	250	days/year	EPA 1991	
				ED	Exposure Duration	25	years	EPA 1991	PEF = 1.32E+09 m^3/kg (EPA 2002c)
				BW	Body Weight	70	kg	EPA 1991	VF = Chemical-specific volatilization factor
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	9,125	days	EPA 1989	
	Construction Worker	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	Chemical-specific	mg/m^3	Calculated from CS	Intake (mg/kg-day) = (CA x InhR x ET x EF x ED) / (BW x AT)
				InhR	Inhalation Rate	2.50	m^3/hour	EPA 1991	
				ET	Exposure Time	8	hours/day	EPA 1991	where CA = CS / PEF for particulates, and
				EF	Exposure Frequency	250	days/year	EPA 1991	CA = CS / VF for volatiles
				ED	Exposure Duration	1	years	DTSC 2000	PEF = 1.32E+09 m^3/kg (EPA 2002c)
				BW	Body Weight	70	kg	EPA 1991	VF = Chemical-specific volatilization factor
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	365	days	EPA 1989	
	Resident	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	Chemical-specific	mg/m^3	Calculated from CS	Intake (mg/kg-day) = (CA x InhR x ET x EF x ED) / (BW x AT)
				InhR	Inhalation Rate	0.83	m^3/hour	EPA 1991	
				ET	Exposure Time (3)	24	hours/day	EPA 1991	where CA = CS / PEF for particulates, and
				EF	Exposure Frequency	350	days/year	EPA 1991	CA = CS / VF for volatiles
				ED	Exposure Duration	24	years	EPA 1991	PEF = 1.32E+09 m^3/kg (EPA 2002c)
				BW	Body Weight	70	kg	EPA 1991	VF = Chemical-specific volatilization factor
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	8,760	days	EPA 1989	

TABLE F-4.1: VALUES USED FOR DAILY INTAKE RME SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Inhalation (Continued)	Resident (Continued)	Child (2)	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	Chemical-specific	mg/m^3	Calculated from CS	Intake (mg/kg-day) = (CA x InhR x ET x EF x ED) / (BW x AT)
				InhR	Inhalation Rate	0.42	m^3/hour	EPA 1991	
				ET	Exposure Time (3)	24	hours/day	EPA 1991	where CA = CS / PEF for particulates, and
				EF	Exposure Frequency	350	days/year	EPA 1991	CA = CS / VF for volatiles
				ED	Exposure Duration	6	years	EPA 1991	PEF = 1.32E+09 m^3/kg (EPA 2002c)
				BW	Body Weight	15	kg	EPA 1991	VF = Chemical-specific volatilization factor
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	

Notes:

(1) See Section 5 for discussion of the intake assumptions.

(2) While children's inhalation rates can be estimated, the toxicity factors applied in a risk assessment are based on chronic risks and not adjusted for a child's unique physiology.

(3) These exposure times for inhalation are shown to represent the total daily inhalation rate on an hourly basis; however, the actual outdoor activity where particles or vapors would be inhaled does not amount to round-the-clock exposure. In particular, for residential scenarios where exposure to indoor air is assumed, this will result in a conservative overestimate of risk, unless soil (vapor and particulate) and groundwater (indoor air and soil gas) pathways are characterized separately.

cm^2	Square centimeter
days/year	Days per year
DTSC	Department of Toxic Substances Control
EPA	U.S. Environmental Protection Agency
EPC	Exposure point concentration
hours/day	Hours per day
kg	Kilogram
kg/mg	Kilograms per milligram
mg/cm^2	Milligrams per square centimeter
mg/day	Milligrams per day
mg/kg	Milligrams per kilogram
mg/m^3	Milligrams per cubic meter
m^3/hour	Cubic meters per hour
m^3/kg	Cubic meters of air per kg soil (reduced from mg/m3-air per mg/kg-soil)
OERR	Office of Emergency and Remedial Response
PEF	Particulate emission factor
RAGS	Risk Assessment Guidance for Superfund
RME	Reasonable maximum exposure

References:

California Environmental Protection Agency, Department of Toxic Substances Control (DTSC). 1993. Parameter Values and Ranges for CalTOX, California Department of Toxic Substances Control. July

DTSC. 2000. "Interoffice Memorandum Regarding Guidance for the Dermal Exposure Pathway." From S.M. DiZio, M.J. Wade, and D.J. Oudiz. To Human Health and Ecological Division. January 7.

U.S. Environmental Protection Agency (EPA). 1989. "RAGS, Volume 1: Human Health Evaluation Manual (Part A)." OERR. Washington, D.C. December.

EPA. 1991. Interoffice Memorandum Regarding Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors. From T. Fields, Jr., and B. Diamond. To Director, Waste Management Division, Regions I, IV, V, and VII; Director, Emergency and Remedial Response Division, Region III; Director, Hazardous Waste Management Division, Regions III, VI, VIII, and IX; Director, Hazardous Waste Division, Region X. March 25.

EPA. 1996. "Soil Screening Guidance: Technical Background Document." Office of Solid Waste and Emergency Response. May.

EPA. 1997. "Exposure Factors Handbook." Office of Research and Development. August.

EPA. 2001a. "Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites." Office of Solid Waste and Emergency Response. March.

EPA. 2004a. "RAGS, Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)." OERR. Washington, D.C. July.

EPA. 2004b. Region 9 Preliminary Remediation Goals [PRGs] and Accompanying PRGs: Background Document. October 1. Available on the internet at http://www.epa.gov/region09/waste/sfund/prg/files/04usersguide.pdf

TABLE F-4.2: VALUES USED FOR DAILY INTAKE RME GROUNDWATER EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Groundwater
Exposure Medium:	Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Ingestion	Resident	Adult	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x WC x EF x ED) / (BW x AT)
				WC	Water Consumption Rate	2	liters/day	EPA 1989	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	24	years	EPA 1991	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
					Averaging Time - Noncancer	8,760	days	EPA 1989	
		Child	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x WC x EF x ED) / (BW x AT)
				WC	Water Consumption Rate	1	liters/day	EPA 1989	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	
Dermal	Resident	Adult	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x SAw x PC x ET x EF x ED x .001) / (BW x AT)
				SA_w	Surface Area	18,000	cm^2	EPA 2004a	
				PC	Dermal Permeability Coefficien	Chemical-specific	cm/hr	EPA 2004a	
				ET	Bath or Shower Duration	0.58	hours/day	EPA 2004a	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	24	years	EPA 1989	
				0.001	Volumetric Conversion Factor	1.0E-03	L/cm^3	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	8,760	days	EPA 1989	

TABLE F-4.2: VALUES USED FOR DAILY INTAKE RME GROUNDWATER EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Groundwater
Exposure Medium:	Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Dermal (Continued)	Resident (continued)	Child	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x SAw x PC x ET x EF x ED x .001) / (BW x AT)
				SA_w	Surface Area	6,600	cm^2	EPA 2004a	
				PC	Dermal Permeability Coefficien	Chemical-specific	cm/hr	EPA 2004a	
				ET	Bath or Shower Duration	1	hours/day	EPA 2004a	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1989	
				0.001	Volumetric Conversion Factor	1.0E-03	L/cm^3	Not applicable	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	
Inhalation of Volatiles Released from Domestic Water Use	Resident	Adult	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x VF_W x InhR x ET x EF x ED) / (BW x AT)
				InhR	Inhalation Rate	0.83	m^3/hour	EPA 1991	
				VF_W	Volatilization Factor	0.5	L/m^3	EPA 2004b	
				ET	Exposure Time	0.58	hours/day	Professional judgment	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	24	years	EPA 1991	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	8,760	days	EPA 1989	
		Child	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x VF_W x InhR x ET x EF x ED) / (BW x AT)
				InhR	Inhalation Rate	0.42	m^3/hour	EPA 1991	
				ET	Exposure Time	1	hours/day	Professional judgment	
				VF_W	Volatilization Factor	0.5	L/m^3	EPA 2004b	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	

TABLE F-4.2: VALUES USED FOR DAILY INTAKE RME GROUNDWATER EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Groundwater
Exposure Medium:	Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Inhalation of Volatiles in Indoor Air	Industrial Worker	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	EPC	mg/m^3	Modeled from CW	Intake (mg/kg-day) =
				InhR	Inhalation Rate	2.50	m^3/hour	EPA 1991	(CA x InhR x ET x EF x ED) / (BW x AT)
				ET	Exposure Time	8	hours/day	EPA 1991	
				EF	Exposure Frequency	250	days/year	EPA 1991	
				ED	Exposure Duration	25	years	EPA 1991	where CA will be modeled from GW
				BW	Body Weight	70	kg	EPA 1991	data using the Johnson & Ettinger
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	model
				AT-NC	Averaging Time - Noncancer	9,125	days	EPA 1989	
	Resident	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	EPC	mg/m^3	Modeled from CW	Intake (mg/kg-day) =
				InhR	Inhalation Rate	0.83	m^3/hour	EPA 1991	(CA x InhR x ET x EF x ED) / (BW x AT)
				ET	Exposure Time (3)	24	hours/day	EPA 1991	
				EF	Exposure Frequency	350	days/year	EPA 1991	where CA will be modeled from GW
				ED	Exposure Duration	24	years	EPA 1991	data using the Johnson & Ettinger
				BW	Body Weight	70	kg	EPA 1991	model
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	8,760	days	EPA 1989	
		Child (2)	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	EPC	mg/m^3	Modeled from CW	Intake (mg/kg-day) =
				InhR	Inhalation Rate	0.42	m^3/hour	EPA 1991	(CA x InhR x ET x EF x ED) / (BW x AT)
				ET	Exposure Time (3)	24	hours/day	EPA 1991	
				EF	Exposure Frequency	350	days/year	EPA 1991	where CA will be modeled from GW
				ED	Exposure Duration	6	years	EPA 1991	data using the Johnson & Ettinger
				BW	Body Weight	15	kg	EPA 1991	model
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	
Inhalation of Volatiles in Outdoor Air	Construction Worker	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	EPC	mg/m^3	Modeled from CW	Intake (mg/kg-day) =
				InhR	Inhalation Rate	2.50	m^3/hour	EPA 1991	(CA x InhR x ET x EF x ED) / (BW x AT)
				ET	Exposure Time	8	hours/day	EPA 1991	
				EF	Exposure Frequency	250	days/year	EPA 1991	
				ED	Exposure Duration	1	years	DTSC 2000	where CA will be modeled from GW
				BW	Body Weight	70	kg	EPA 1991	data using the ASTM model.
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	365	days	EPA 1989	

Notes:

(1) See Section 5 for discussion of the intake assumptions.

(2) While children's inhalation rates can be estimated, the toxicity factors applied in a risk assessment are based on chronic risks and not adjusted for a child's unique physiology.

(3) These exposure times for inhalation are shown to represent the total daily inhalation rate on an hourly basis; however, the actual outdoor activity where particles or vapors would be inhaled does not amount to round-the-clock exposure.

TABLE F-4.2: VALUES USED FOR DAILY INTAKE RME GROUNDWATER EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Groundwater
Exposure Medium:	Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)

In particular, for residential scenarios where exposure to indoor air is assumed, this will result in a conservative overestimate of risk, unless soil (vapor and particulate) and groundwater (indoor air and soil gas) pathways are characterized separately.

cm^2	Square centimeter	mg/kg	Milligrams per kilogram
days/year	Days per year	mg/m^3	Milligrams per cubic meter
DTSC	Department of Toxic Substances Control	m^3/hour	Cubic meters per hour
EPA	U.S. Environmental Protection Agency	m^3/kg	Cubic meters of air per kg soil (reduced from mg/m3-air per mg/kg-soil)
EPC	Exposure point concentration	OERR	Office of Emergency and Remedial Response
hours/day	Hours per day	PEF	Particulate emission factor
kg	Kilogram	RAGS	Risk Assessment Guidance for Superfund
kg/mg	Kilograms per milligram	RME	Reasonable maximum exposure
mg/cm^2	Milligrams per square centimeter		
mg/day	Milligrams per day		

References:

California Environmental Protection Agency, Department of Toxic Substances Control (DTSC). 1993. Parameter Values and Ranges for CalTOX, California Department of Toxic Substances Control. July

DTSC. 2000. "Interoffice Memorandum Regarding Guidance for the Dermal Exposure Pathway." From S.M. DiZio, M.J. Wade, and D.J. Oudiz. To Human Health and Ecological Division. January 7.

U.S. Environmental Protection Agency (EPA). 1989. "RAGS, Volume 1: Human Health Evaluation Manual (Part A)." OERR. Washington, D.C. December.

EPA. 1991. Interoffice Memorandum Regarding Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors. From T. Fields, Jr., and B. Diamond. To Director, Waste Management Division, Regions I, IV, V, and VII; Director, Emergency and Remedial Response Division, Region III; Director, Hazardous Waste Management Division, Regions III, VI, VIII, and IX; Director, Hazardous Waste Division, Region X. March 25.

EPA. 1996. "Soil Screening Guidance: Technical Background Document." Office of Solid Waste and Emergency Response. May.

EPA. 1997. "Exposure Factors Handbook." Office of Research and Development. August.

EPA. 2001a. "Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites." Office of Solid Waste and Emergency Response. March.

EPA. 2004a. "RAGS, Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)." OERR. Washington, D.C. July.

EPA. 2004b. Region 9 Preliminary Remediation Goals [PRGs] and Accompanying PRGs: Background Document. October 1. Available on the internet at http://www.epa.gov/region09/waste/sfund/prg/files/04usersguide.pdf

TABLE F-4.3: VALUES USED FOR DAILY INTAKE CTE SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Ingestion	Industrial Worker	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x IRS x EF x ED x MCF) / (BW x AT)
				IRS	Ingestion Rate - Soil	50	mg/day	EPA 1991	
				FI	Fraction Ingested	1	unitless	Professional judgment	
				EF	Exposure Frequency	219	days/year	EPA 2001b	
				ED	Exposure Duration	4.5	years	USDC 1994	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	1,643	days	EPA 1989	
	Construction Worker	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x IRS x EF x ED x MCF) / (BW x AT)
				IRS	Ingestion Rate - Soil	100	mg/day	EPA 1997	
				FI	Fraction Ingested	1	unitless	Professional judgment	
				EF	Exposure Frequency	60	days/year	Professional judgment	
				ED	Exposure Duration	1	years	DTSC 2000	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	365	days	EPA 1989	
	Resident	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x IRS x EF x ED x MCF) / (BW x AT)
				IRS	Ingestion Rate - Soil	50	mg/day	EPA 1997	
				FI	Fraction Ingested	1	unitless	Professional judgment	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	9	years	EPA 1989	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	

TABLE F-4.3: VALUES USED FOR DAILY INTAKE CTE SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Ingestion (continued)	Resident (continued)	Adult (continued)	Alameda Point Site Under Assessment	AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	3,285	days	EPA 1989	
		Child	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x IRS x EF x ED x MCF) / (BW x AT)
				IRS	Ingestion Rate - Soil	100	mg/day	EPA 1997	
				FI	Fraction Ingested	1	unitless	Professional judgment	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	
Dermal	Industrial Worker	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x ABS x SA x AF x EF x ED x MCF) / (BW x AT)
				ABS	Dermal Absorption Factor	Chemical-specific	unitless	EPA 2001b	
				SA	Exposed Skin Surface Area	3,300	cm^2	EPA 2001b	
				AF	Soil to Skin Adherence Factor	0.02	mg/cm^2	EPA 2001b	
				EF	Exposure Frequency	219	days/year	EPA 2001b	
				ED	Exposure Duration	4.5	years	USDC 1994	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	1,643	days	EPA 1989	
	Construction Worker	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x ABS x SA x AF x EF x ED x MCF) / (BW x AT)
				ABS	Dermal Absorption Factor	Chemical-specific	unitless	EPA 2001b	
				SA	Exposed Skin Surface Area	3,300	cm^2	EPA 2001b	
				AF	Soil to Skin Adherence Factor	0.1	mg/cm^2	DTSC 2000	

TABLE F-4.3: VALUES USED FOR DAILY INTAKE CTE SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Dermal (continued)	Construction Worker (continued)	Adult (continued)	Alameda Point Site Under Assessment	EF	Exposure Frequency	60	days/year	Professional judgment	
				ED	Exposure Duration	1	years	DTSC 2000	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	365	days	EPA 1989	
	Resident	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x ABS x SA x AF x EF x ED x MCF) / (BW x AT)
				ABS	Dermal Absorption Factor	Chemical-specific	unitless	EPA 2001b	
				SA	Exposed Skin Surface Area	5,700	cm^2	EPA 2001b	
				AF	Soil to Skin Adherence Factor	0.01	mg/cm^2	EPA 2001b	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	9	years	EPA 1989	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	3,285	days	EPA 1989	
		Child	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x ABS x SA x AF x EF x ED x MCF) / (BW x AT)
				ABS	Dermal Absorption Factor	Chemical-specific	unitless	EPA 2001b	
				SA	Exposed Skin Surface Area	2,800	cm^2	EPA 2001b	
				AF	Soil to Skin Adherence Factor	0.04	mg/cm^2	EPA 2001b	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	
				MCF	Mass Conversion Factor	1E-06	kg/mg	Not applicable	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	

TABLE F-4.3: VALUES USED FOR DAILY INTAKE CTE SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Ingestion of Homegrown Produce	Resident	Adult	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x UF x IRS x EF x ED) / (BW x AT)
				UF	Uptake Factor	Chemical-specific	unitless	DTSC 1993; EPA 1996	
				FI	Fraction Ingested	0.2	unitless	Professional judgment	
				IRS	Intake Rate	0.03	kg/day	EPA 1997	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	9	years	EPA 1991	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Non-cancer	3,285	days	EPA 1989	
		Child	Alameda Point Site Under Assessment	CS	Chemical Concentration in Soil	EPC	mg/kg	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CS x FI x UF x IRS x EF x ED) / (BW x AT)
				UF	Uptake Factor	Chemical-specific	unitless	DTSC 1993; EPA 1996	
				FI	Fraction Ingested	0.2	unitless	Professional judgment	
				IRS	Intake Rate	0.0064	kg/day	EPA 1997	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Non-cancer	2,190	days	EPA 1989	
Inhalation	Industrial Worker	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	Chemical-specific	mg/m^3	Calculated from CS	Intake (mg/kg-day) = (CA x IRA x ET x EF x ED) / (BW x AT)
				IRA	Inhalation Rate - Air	2.50	m^3/hour	EPA 1991	
				ET	Exposure Time	8	hours/day	EPA 1991	where CA= CS / PEF for particulates, and
				EF	Exposure Frequency	219	days/year	EPA 2001b	CA= CS / VF for volatiles
				ED	Exposure Duration	4.5	years	USDC 1994	PEF = 1.32E+09 m^3/kg (EPA 2002c)
				BW	Body Weight	70	kg	EPA 1991	VF = Chemical-specific volatilization factor
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	1,643	days	EPA 1989	

TABLE F-4.3: VALUES USED FOR DAILY INTAKE CTE SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Inhalation (Continued)	Construction Worker	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	Chemical-specific	mg/m^3	Calculated from CS	Intake (mg/kg-day) = (CA x IRA x ET x EF x ED) / (BW x AT)
				IRA	Inhalation Rate - Air	2.50	m^3/hour	EPA 1991	
				ET	Exposure Time	8	hours/day	EPA 1991	where CA = CS / PEF for particulates, and
				EF	Exposure Frequency	60	days/year	Professional judgment	CA = CS / VF for volatiles
				ED	Exposure Duration	1	years	DTSC 2000	PEF = 1.32E+09 m^3/kg (EPA 2002c)
				BW	Body Weight	70	kg	EPA 1991	VF = Chemical-specific volatilization factor
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	365	days	EPA 1989	
	Resident	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	Chemical-specific	mg/m^3	Calculated from CS	Intake (mg/kg-day) = (CA x InhR x ET x EF x ED) / (BW x AT)
				InhR	Inhalation Rate	0.83	m^3/hour	EPA 1991	
				ET	Exposure Time (3)	24	hours/day	EPA 1991	where CA = CS / PEF for particulates, and
				EF	Exposure Frequency	350	days/year	EPA 1991	CA = CS / VF for volatiles
				ED	Exposure Duration	9	years	EPA 1989	PEF = 1.32E+09 m^3/kg (EPA 2002c)
				BW	Body Weight	70	kg	EPA 1991	VF = Chemical-specific volatilization factor
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	3,285	days	EPA 1989	
		Child (2)	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	Chemical-specific	mg/m^3	Calculated from CS	Intake (mg/kg-day) = (CA x InhR x ET x EF x ED) / (BW x AT)
				InhR	Inhalation Rate	0.42	m^3/hour	EPA 1991	
				ET	Exposure Time (3)	24	hours/day	EPA 1991	
				EF	Exposure Frequency	350	days/year	EPA 1991	where CA = CS / PEF for particulates, and
				ED	Exposure Duration	6	years	EPA 1991	CA = CS / VF for volatiles
				BW	Body Weight	15	kg	EPA 1991	PEF = 1.32E+09 m^3/kg (EPA 2002c)
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	VF = Chemical-specific volatilization factor
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	

TABLE F-4.3: VALUES USED FOR DAILY INTAKE CTE SOIL EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Soil
Exposure Medium:	Soil

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)

Notes:

(1) See Section 5 for discussion of the intake assumptions.

(2) While children's inhalation rates can be estimated, the toxicity factors applied in a risk assessment are based on chronic risks and not adjusted for a child's unique physiology.

(3) These exposure times for inhalation are shown to represent the total daily inhalation rate on an hourly basis; however, the actual outdoor activity where particles or vapors would be inhaled does not amount to round-the-clock exposure. In particular, for residential scenarios where exposure to indoor air is assumed, this will result in a conservative overestimate of risk, unless soil (vapor and particulate) and groundwater (indoor air and soil gas) pathways are characterized separately.

cm^2	Square centimeter	mg/cm^2	Milligrams per square centimeter
CTE	Central tendency exposure	mg/day	Milligrams per day
days/year	Days per year	mg/m^3	Milligrams per cubic meter
DTSC	Department of Toxic Substances Control	m^3/hour	Cubic meters per hour
EPA	U.S. Environmental Protection Agency	m^3/kg	Cubic meters of air per kg soil (reduced from mg/m3-air per mg/kg-soil)
EPC	Exposure point concentration	OERR	Office of Emergency and Remedial Response
hours/day	Hours per day	PEF	Particulate emission factor
kg	Kilogram	RAGS	Risk Assessment Guidance for Superfund
kg/mg	Kilograms per milligram	USDC	U.S. Department of Commerce

References:

USDC. 1994. "Statistical Abstract of the United States." Bureau of the Census. 114th Edition.

DTSC. 2000. Interoffice Memorandum Regarding Guidance for the Dermal Exposure Pathway. From S.M. DiZio, M.J. Wade, and D.J. Oudiz. To Human Health and Ecological Division. January 7.

EPA. 1989. *RAGS, Volume 1: Human Health Evaluation Manual (Part A)*. OERR. Washington, DC. December.

EPA. 1991. Interoffice Memorandum Regarding Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors. From T. Fields, Jr., and B. Diamond. To Director, Waste Management Division, Regions I, I and VII; Director, Emergency and Remedial Response Division, Region III; Director, Hazardous Waste Management Division, Regions III, VI, VIII, and IX; Director, Hazardous Waste Division, Region X. March 25.

EPA. 1997. *Exposure Factors Handbook, Volume 1-General Factors*. Office of Research and Development. National Center for Environmental Assessment. Washington, D.C. August.

EPA. 2001a. "Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites." Office of Solid Waste and Emergency Response. March.

EPA. 2004a. "RAGS, Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)." OERR. Washington, D.C. July.

EPA. 2004b. Region 9 Preliminary Remediation Goals [PRGs] and Accompanying PRGs: Background Document. October 1. Available on the internet at http://www.epa.gov/region09/waste/sfund/prg/files/04usersguide.pdf

TABLE F-4.4: VALUES USED FOR DAILY INTAKE CTE GROUNDWATER EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Groundwater
Exposure Medium:	Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Ingestion	Resident	Adult	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x WC x EF x ED) / (BW x AT)
				WC	Water Consumption Rate	1.4	liters/day	EPA 1989	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	9	years	EPA 1989	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	3,285	days	EPA 1989	
		Child	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x WC x EF x ED) / (BW x AT)
				WC	Water Consumption Rate	1	liters/day	EPA 1989	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	
Dermal	Resident	Adult	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x SAw x PC x ET x EF x ED x .001) / (BW x AT)
				SA_w	Surface Area	18,000	cm^2	EPA 2001b	
				PC	Dermal Permeability Coefficient	Chemical-specific	cm/hr	EPA 2001b	
				ET	Bath or Shower Duration	0.25	hours/day	EPA 2001b	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	9	years	EPA 1989	
				0.001	Volumetric Conversion Factor	1.0E-03	L/cm^3	Not applicable	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	3,285	days	EPA 1989	

TABLE F-4.4: VALUES USED FOR DAILY INTAKE CTE GROUNDWATER EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Groundwater
Exposure Medium:	Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Dermal (Continued)	Resident (Continued)	Child	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x SAw x PC x ET x EF x ED x .001) / (BW x AT)
				SA_w	Surface Area	6,600	cm^2	EPA 2001b	
				PC	Dermal Permeability Coefficient	Chemical-specific	cm/hr	EPA 2001b	
				ET	Bath or Shower Duration	0.33	hours/day	EPA 2001b	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	
				0.001	Volumetric Conversion Factor	1.0E-03	L/cm^3	Not applicable	
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	
Inhalation of Volatiles Released from Domestic Water Use	Resident	Adult	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x VF_W x InhR x ET x EF x ED) / (BW x AT)
				InhR	Inhalation Rate	0.83	m^3/hour	EPA 1991	
				VF_W	Volatilization Factor	0.5	L/m^3	EPA 2002c	
				ET	Exposure Time	0.25	hours/day	Professional judgment	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	9	years	EPA 1989	
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	3,285	days	EPA 1989	
		Child	Alameda Point Site Under Assessment	CW	Chemical Concentration in Groundwater	Chemical-specific	mg/L	RAGS Part D Table 3 series for each site will document the rationale.	Intake (mg/kg-day) = (CW x VF_W x InhR x ET x EF x ED) / (BW x AT)
				InhR	Inhalation Rate	0.42	m^3/hour	EPA 1991	
				ET	Exposure Time	0.33	hours/day	Professional judgment	
				VF_W	Volatilization Factor	0.5	L/m^3	EPA 2002c	
				EF	Exposure Frequency	350	days/year	EPA 1991	
				ED	Exposure Duration	6	years	EPA 1991	

TABLE F-4.4: VALUES USED FOR DAILY INTAKE CTE GROUNDWATER EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Groundwater
Exposure Medium:	Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)
Inhalation of Volatiles Released from Domestic Water Use (continued)	Resident (continued)	Child (continued)	Alameda Point Site Under Assessment	BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	
Inhalation of Volatiles in Indoor Air	Industrial Worker	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	EPC	mg/m^3	Modeled from CW	Intake (mg/kg-day) =
				InhR	Inhalation Rate	2.50	m^3/hour	EPA 1991	(CA x InhR x ET x EF x ED) / (BW x AT)
				ET	Exposure Time	8	hours/day	EPA 1991	
				EF	Exposure Frequency	219	days/year	EPA 2001b	where CA will be modeled from CW and/or soil
				ED	Exposure Duration	4.5	years	USDC 1994	gas data using the Johnson & Ettinger model
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	1,643	days	EPA 1989	
	Resident	Adult	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	EPC	mg/m^3	Modeled from CW	Intake (mg/kg-day) =
				InhR	Inhalation Rate	0.83	m^3/hour	EPA 1991	(CA x InhR x ET x EF x ED) / (BW x AT)
				ET	Exposure Time (3)	24	hours/day	EPA 1991	
				EF	Exposure Frequency	350	days/year	EPA 1991	where CA will be modeled from CW and/or soil
				ED	Exposure Duration	9	years	EPA 1989	gas data using the Johnson & Ettinger model
				BW	Body Weight	70	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	3,285	days	EPA 1989	
		Child (2)	Alameda Point Site Under Assessment	CA	Chemical Concentration in Air	EPC	mg/m^3	Modeled from CW	Intake (mg/kg-day) =
				InhR	Inhalation Rate	0.42	m^3/hour	EPA 1991	(CA x InhR x ET x EF x ED) / (BW x AT)
				ET	Exposure Time (3)	24	hours/day	EPA 1991	
				EF	Exposure Frequency	350	days/year	EPA 1991	where CA will be modeled from CW and/or soil
				ED	Exposure Duration	6	years	EPA 1991	gas data using the Johnson & Ettinger model
				BW	Body Weight	15	kg	EPA 1991	
				AT-C	Averaging Time - Cancer	25,550	days	EPA 1989	
				AT-NC	Averaging Time - Noncancer	2,190	days	EPA 1989	

TABLE F-4.4: VALUES USED FOR DAILY INTAKE CTE GROUNDWATER EXPOSURES

Appendix F, HHRA for CERCLA Sites 3, 4, 11, and 21, Alameda Point, Alameda, California

Scenario Timeframe:	Future
Medium:	Groundwater
Exposure Medium:	Groundwater

Exposure Route	Receptor Population	Receptor Age	Exposure Point	Parameter Code	Parameter Definition	Value	Units	Rationale/ Reference	Intake Equation/ Model Name (1)

Notes:

(1) See Section 5 for discussion of the intake assumptions.

(2) While children's inhalation rates can be estimated, the toxicity factors applied in a risk assessment are based on chronic risks and not adjusted for a child's unique physiology.

(3) These exposure times for inhalation are shown to represent the total daily inhalation rate on an hourly basis; however, because some outdoor activity is being assumed based on the inclusion of soil pathways and outdoor air inhalation, this will result in a conservative overestimate of risk, unless soil (vapor and particulate) and groundwater (indoor air and soil gas) pathways are characterized separately.

cm^2	Square centimeters	m^3/hour	Cubic meters per hour
cm/hr	Centimeters per hour	L/cm^3	Liters per cubic centimeter
CTE	Central tendency exposure	mg/kg-day	Milligrams per kilogram per day
days/year	Days per year	mg/m^3	Milligrams per cubic meter
EPA	U.S. Environmental Protection Agency	mg/L	Milligrams per liter
EPC	Exposure Point Concentration	OERR	Office of Emergency and Remedial Response
hours/day	Hours per day	RAGS	Risk Assessment Guidance for Superfund
kg	Kilogram	USDC	U.S. Department of Commerce

References:

USDC. 1994. "Statistical Abstract of the United States." Bureau of the Census. 114th Edition.

EPA. 1989. *RAGS, Volume 1: Human Health Evaluation Manual (Part A)* . OERR. Washington, D.C. December.

EPA. 1991. Interoffice Memorandum Regarding Human Health Evaluation Manual, Supplemental Guidance: Standard Default Exposure Factors. From T. Fields, Jr., and B. Diamond. To Director, Waste Management Division, Regions I, IV, V, and VII; Director, Emergency and Remedial Response Division, Region III; Director, Hazardous Waste Management Division, Regions III, VI, VIII, and IX; Director, Hazardous Waste Division, Region X. March 25.

EPA. 2001b. *RAGS, Volume 1: Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment)* . OERR. Washington, D.C. September.

EPA. 2002c. Region 9 Preliminary Remediation Goals [PRG] and accompanying PRGs: Background Document. October 1. Available on the Internet at http://www.epa.gov/region09/waste/sfund/prg/files/background.pdf

TABLE F-5.1.EPA
EPA RAGS PART D TABLE 5, EPA NON-CANCER TOXICITY DATA -- ORAL/DERMAL
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal	Absorbed RfD for Dermal		Primary Target Organ(s)	Combined Uncertainty/ Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s)
1,1-Dichlorethane	Chronic	1.0E-01	mg/kg-day	100%	1.0E-01	mg/kg-day	No observed effect	1000	HEAST	1997
1,1-Dichlorethene	Chronic	5.0E-02	mg/kg-day	100%	5.0E-02	mg/kg-day	Liver	100	IRIS	2003
1,1,1-Trichloroethane	Chronic	2.8E-01	mg/kg-day	100%	2.8E-01	mg/kg-day	Liver	1000	R9-NCEA	2002
1,1,2-Trichloroethane	Chronic	4.0E-03	mg/kg-day	100%	4.0E-03	mg/kg-day	Blood	1000	IRIS	2003
1,1,2,2-Tetrachloroethane	Chronic	6.00E-02	mg/kg-day	100%	6.00E-02	mg/kg-day	Liver, Kidney	--	IRIS	2004
1,2-Dichlorobenzene	Chronic	9.00E-02	mg/kg-day	100%	9.00E-02	mg/kg-day	No observed effect	--	IRIS	2004
1,2-Dichlorethane	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Kidney	3000	R9-NCEA	2002
1,2-Dichlorethene (Total)	Chronic	1.0E-02	mg/kg-day	100%	1.0E-02	mg/kg-day	Blood	3000	HEAST	1997
1,2-Dichloropropane	Chronic	1.10E-03	mg/kg-day	100%	1.10E-03	mg/kg-day	Blood, Liver, CNS	--	IRIS	2004
1,2,4-Trimethylbenzene	Chronic	5.0E-02	mg/kg-day	100%	5.0E-02	mg/kg-day	No observed effect	3000	R9-NCEA	2002
1,3-Dichlorobenzene	Chronic	9.00E-04	mg/kg-day	100%	9.00E-04	mg/kg-day	Liver/Thyroid	--	IRIS	2004
1,3,5-Trimethylbenzene[a]	Chronic	5.0E-02	mg/kg-day	100%	5.0E-02	mg/kg-day	No observed effect	3000	R9-NCEA	2002
1,4-Dichlorobenzene	Chronic	3.0E-02	mg/kg-day	100%	3.0E-02	mg/kg-day	GI Tract, Liver	--	R9-NCEA	2002
2-Butanone	Chronic	6.00E-01	mg/kg-day	100%	6.00E-01	mg/kg-day	Developmental	1000	IRIS	2004
2-hexanone[b]	Chronic	8.00E-02	mg/kg-day	100%	8.00E-02	mg/kg-day	CNS	--	IRIS	2004
2-Methylnaphthalene	Chronic	4.00E-03	mg/kg-day	100%	4.00E-03	mg/kg-day	Lungs	1000	IRIS	2004
2,4-Dimethylphenol	Chronic	2.00E-02	mg/kg-day	100%	2.00E-02	mg/kg-day	Brain/Body Systems	--	IRIS	2004
2,4-Dinitrotoluene	Chronic	2.00E-03	mg/kg-day	100%	2.0E-03	mg/kg-day	CNS/Liver/Blood	100	IRIS	2004
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	--	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	Chronic	8.0E-02	mg/kg-day	100%	8.0E-02	mg/kg-day	Whole Body	1	HEAST	1997
4,4-DDD[c]	Chronic	5.00E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Liver	100	IRIS	2004
4,4-DDE[c]	Chronic	5.00E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Liver	100	IRIS	2004
4,4'-DDT[c]	Chronic	5.00E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Liver	100	IRIS	2004
alpha-BHC	Chronic	5.0E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Liver	100	NCEA	2002
alpha-Chlordane	Chronic	5.00E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Liver	300	IRIS	2003
Acenaphthene	Chronic	6.00E-02	mg/kg-day	100%	6.0E-02	mg/kg-day	Liver	3,000	IRIS	2004
Acenaphthylene[d]	Chronic	6E-02	mg/kg-day	100%	6.0E-02	mg/kg-day	Liver	3,000	IRIS	2004
Acetone	Chronic	9.0E-01	mg/kg-day	100%	9.0E-01	mg/kg-day	Kidney	1000	IRIS	2003
Aluminum	Chronic	1.00E+00	mg/kg-day	100%	1.0E+00	mg/kg-day	CNS	--	PPRTV	2004
Anthracene	Chronic	3.00E-01	mg/kg-day	100%	3.0E-01	mg/kg-day	No observed effect	3,000	IRIS	2004
Antimony	Chronic	4.0E-04	mg/kg-day	100%	4.0E-04	mg/kg-day	Whole body, Blood, Immune System	1000	IRIS	2003
Aroclor-1254	Chronic	2.0E-05	mg/kg-day	100%	2.0E-05	mg/kg-day	Eye/Finger and Toe nails	300	IRIS	2004

TABLE F-5.1.EPA
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Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal	Absorbed RfD for Dermal		Primary Target Organ(s)	Combined Uncertainty/ Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s)
Aroclor-1260[e]	Chronic	2.0E-05	mg/kg-day	100%	2.0E-05	mg/kg-day	Eye/Finger and Toe nails	300	IRIS	2004
Arsenic	Chronic	3.0E-04	mg/kg-day	100%	3.0E-04	mg/kg-day	Skin	3	IRIS	2003
Barium	Chronic	7.0E-02	mg/kg-day	7%	4.9E-03	mg/kg-day	Kidney	3	IRIS	2004
Beryllium	Chronic	2.0E-03	mg/kg-day	1%	1.4E-05	mg/kg-day	GI Tract	300	IRIS	2004
Benzene	Chronic	4.0E-03	mg/kg-day	100%	4.0E-03	mg/kg-day	Blood	300	IRIS	2003
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene[f]	Chronic	3.0E-02	mg/kg-day	100%	3.0E-02	mg/kg-day	Kidney	3,000	IRIS	2004
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--	--
Beta-BHC	Chronic	2.0E-04	mg/kg-day	100%	2.0E-04	mg/kg-day	Liver/Reproductive System	--	R9-NCEA	2002
bis(2-ethylhexyl)phthalate	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Liver	--	IRIS	2004
Bromodichloromethane	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Kidney	1000	IRIS	2003
Butylbenzylphthalate	Chronic	2.0E-01	mg/kg-day	100%	2.0E-01	mg/kg-day	Liver	--	IRIS	2004
Cadmium	Chronic	5.0E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Kidney	10	IRIS	2003
Carbazole	--	--	--	--	--	--	--	--	--	--
Carbon disulfide	Chronic	1.0E-01	mg/kg-day	100%	1.0E-01	mg/kg-day	Developmental	100	IRIS	2004
Chlordane	Chronic	5.0E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Liver	--	IRIS	2004
Chlorobenzene	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Liver	1000	IRIS	2004
Chloroethane	Chronic	4.0E-01	mg/kg-day	100%	4.0E-01	mg/kg-day	No observed effect	3000	R9-NCEA	2002
Chloroform	Chronic	1.0E-02	mg/kg-day	100%	1.0E-02	mg/kg-day	Liver	1000	IRIS	2003
Chloromethane	Chronic	2.60E-02	mg/kg-day	100%	2.6E-02	mg/kg-day	Liver, Kidney, Spleen, CNS	--	R9-R	2002
Chromium[g]	Chronic	1.5E+00	mg/kg-day	100%	1.5E+00	mg/kg-day	No observed effect	1000	IRIS	2004
Chromium (VI)	Chronic	3.0E-03	mg/kg-day	100%	3.0E-03	mg/kg-day	No observed effect	300	IRIS	2003
Chrysene	--	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	Chronic	1.0E-02	mg/kg-day	100%	1.0E-02	mg/kg-day	Blood	3000	HEAST	1997
Cobalt	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Blood	--	PPRTV	2004
Copper	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	Gi Tract/Kidney	1000	HEAST	1997
Cyanide	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Thyroid, CNS	--	IRIS	2004
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	Chronic	2.0E-03	mg/kg-day	100%	2.0E-03	mg/kg-day	Kidney	--	NCEA	2004
Dieldrin	Chronic	5.0E-05	mg/kg-day	100%	5.0E-05	mg/kg-day	Liver	100	IRIS	2004
Diethylphthalate	Chronic	8.0E-01	mg/kg-day	100%	8.0E-01	mg/kg-day	Brain, Liver, Kidneys,Stomach,GI Tract	--	IRIS	2004
Dimethylphthalate	Chronic	1.0E+01	mg/kg-day	100%	1.0E+01	mg/kg-day	Kidney	--	IRIS	2004

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Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal	Absorbed RfD for Dermal		Primary Target Organ(s)	Combined Uncertainty/ Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s)
di-n-Butylphthalate	Chronic	1.0E-01	mg/kg-day	100%	1.0E+01	mg/kg-day	Whole Body	1000	IRIS	2005
di-n-Octylphthalate	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	Kidney/Liver	--	IRIS	2004
Endrin Ketone[h]	Chronic	3.0E-04	mg/kg-day	100%	3.0E-04	mg/kg-day	CNS/Liver	100	IRIS	2004
Ethylbenzene	Chronic	1.0E-01	mg/kg-day	100%	1.0E-01	mg/kg-day	Kidney, Liver	1000	IRIS	2003
Fluoranthene	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	Kidney/Liver/Blood	3000	IRIS	2004
Fluorene	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	Blood	3000	IRIS	2004
gamma-BHC (Lindane)	Chronic	3.0E-04	mg/kg-day	100%	3.0E-04	mg/kg-day	Liver/Kidney	1000	IRIS	2004
gamma-Chlordane	Chronic	5.0E-04	mg/kg-day	100%	5.0E-04	mg/kg-day	Liver	300	IRIS	2004
Heptachlor Epoxide	Chronic	1.3E-05	mg/kg-day	100%	1.3E-05	mg/kg-day	Liver	1000	IRIS	2004
Hexachlorobutadiene	Chronic	3.0E-04	mg/kg-day	100%	3.0E-04	mg/kg-day	Kidney	--	R9-NCEA	2002
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--	--
Iron	chronic	3.0E-01	mg/kg-day	100%	3.0E-01	mg/kg-day	--	--	R9-NCEA	2004
Isopropylbenzene	chronic	1.0E-01	mg/kg-day	100%	1.0E-01	mg/kg-day	Kidney	1,000	IRIS	2004
Lead	--	--	--	--	--	--	--	--	--	--
Manganese[i]	Chronic	2.4E-02	mg/kg-day	100%	2.4E-02	mg/kg-day	CNS	1	IRIS	2004
Mercury	Chronic	3.0E-04	mg/kg-day	7%	2.1E-05	mg/kg-day	Immune System	1000	IRIS	2004
Methoxychlor	Chronic	5.0E-03	mg/kg-day	100%	5.0E-03	mg/kg-day	Reproductive	1000	IRIS	2004
Methylene Chloride	Chronic	6.0E-02	mg/kg-day	100%	6.0E-02	mg/kg-day	Liver	100	IRIS	2003
Methyl-T-Butyl-ether	Chronic	8.6E-01	mg/kg-day	100%	8.6E-01	mg/kg-day	Liver/Kidney/Periocular Tissue	100	R9-R	2002
Molybdenum	Chronic	5.0E-03	mg/kg-day	100%	5.0E-03	mg/kg-day	CNS	3	IRIS	2003
m,p-Xylene[j]	Chronic	2.0E-01	mg/kg-day	100%	2.0E-01	mg/kg-day	CNS/Whole Body	100	HEAST	1997
m-Xylene[j]	Chronic	2.0E-01	mg/kg-day	100%	2.0E-01	mg/kg-day	CNS/Whole Body	100	HEAST	1997
Naphthalene	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Whole Body	3000	IRIS	2004
Nickel	Chronic	2.0E-02	mg/kg-day	4%	8.0E-04	mg/kg-day	Whole Body	300	IRIS	2004
n-Butylbenzene	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	Kidney, Liver	--	IRIS	2004
n-Nitroso-diphenylamine	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Bladder/Whole Body	--	PPRTV	2004
n-Nitroso-di-n-propylamine	--	--	--	--	--	--	--	--	--	--
n-propylbenzene	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	--	--	NCEA	--
o-Xylene	Chronic	2.0E-01	mg/kg-day	100%	2.0E-01	mg/kg-day	CNS/Whole Body	100	HEAST	1997
Pentachlorophenol	Chronic	3.0E-02	mg/kg-day	100%	3.0E-02	mg/kg-day	Liver, Kidney	--	IRIS	2004
Phenanthrene[k]	Chronic	3.0E-01	mg/kg-day	100%	3.0E-01	mg/kg-day	No observed effect	3000	IRIS	2004
Phenol	Chronic	3.0E-01	mg/kg-day	100%	3.0E-01	mg/kg-day	Developmental	300	IRIS	2004
p-Isopropyltoluene	--	--	mg/kg-day	--	--	mg/kg-day	--	--	--	--
Pyrene	Chronic	3.0E-02	mg/kg-day	100%	3.0E-02	mg/kg-day	Kidney	3000	IRIS	2004

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Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal	Absorbed RfD for Dermal		Primary Target Organ(s)	Combined Uncertainty/ Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s)
sec-Butylbenzene	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	Kidney	--	NCEA	--
Selenium	Chronic	5.0E-03	mg/kg-day	30%	1.5E-03	mg/kg-day	Whole Body	3	IRIS	2004
Silver	Chronic	5.0E-03	mg/kg-day	4%	2.0E-04	mg/kg-day	SKin	3	IRIS	2004
tert-Butanol	--	--	mg/kg-day	--	--	mg/kg-day	--	--	--	--
tert-Butylbenzene	Chronic	4.0E-02	mg/kg-day	100%	4.0E-02	mg/kg-day	Kidney	--	NCEA	--
Tetrachloroethene	Chronic	1.0E-02	mg/kg-day	100%	1.0E-02	mg/kg-day	Liver	1000	IRIS	2003
Thallium[l]	Chronic	6.6E-05	mg/kg-day	100%	6.6E-05	mg/kg-day	Liver, Blood	3000	IRIS	2003
Titanium	Chronic	4.0E+00	mg/kg-day	100%	4.0E+00	mg/kg-day	Respiratory System	--	NCEA	--
Toluene	Chronic	2.0E-01	mg/kg-day	100%	2.0E-01	mg/kg-day	Kidney, Liver	1000	IRIS	2003
trans-1,2-Dichloroethene	Chronic	2.0E-02	mg/kg-day	100%	2.0E-02	mg/kg-day	Blood	1000	IRIS	2004
Trichloroethene	Chronic	3.0E-04	mg/kg-day	100%	3.0E-04	mg/kg-day	Liver, Kidney, Fetus	3000	R9-NCEA	2002
Vanadium	Chronic	7.0E-03	mg/kg-day	2.6%	1.8E-04	mg/kg-day	Kidney	300	NCEA	2000
Vinyl chloride	Chronic	3.0E-03	mg/kg-day	100%	3.0E-03	mg/kg-day	Liver	30	IRIS	2003
Xylene (Total)	Chronic	2.0E-01	mg/kg-day	100%	2.0E-01	mg/kg-day	Whole Body	1000	IRIS	2004
Zinc	Chronic	3.0E-01	mg/kg-day	100%	3.0E-01	mg/kg-day	Blood	3	IRIS	2004

Notes:

a 1,2,4-Trimethylbenzene used as a surrogate for toxicity information

b Methyl isobutyl ketone was used as a surrogate for toxicity information

c DDT used as a surrogate for toxicity information

d Acenapthene used as a surrgoate for toxicity information

e Aroclor 1254 used as a surrogate for toxicity information

f Pyrene used as a surrogate for toxicity information

g The oral RfD for trivalent chromium was used as the surrogate toxicity value because hexavalent chromium speciated and evaluated separately.

h Endrin used as a surrogate for toxicity information

i The oral RFD for non-food sources of manganese (such as soil and drinking water) was modified from the oral RFD which includes all sources, including diet (IRIS 2003).

j The oral RfD for total xylene was used as the surrogate toxicity value.

k Anthracene used as a surrogate for toxicity information

l The oral RFD for thallium was derived by making the adjustment contained in the IRIS 2003 file for thallium sulfate, based on the molecular weight of thallium in the thallium salt. Final adjusted oral RFD is shown in Section 2.3 of the Region 9 PRG Table Update memo (2002).

TABLE F-5.1.EPA
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Chemical of Potential Concern	Chronic/ Subchronic	Oral RfD		Oral Absorption Efficiency for Dermal	Absorbed RfD for Dermal		Primary Target Organ(s)	Combined Uncertainty/ Modifying Factors	RfD:Target Organ(s)	
		Value	Units		Value	Units			Source(s)	Date(s)

r	Route-to-route Extrapolation
--	Not available; not applicable
CSF	Cancer slope factor
CNS	Central nervous system
EPA	Environmental Protection Agency
GI Tract	Gastrointestinal Tract
HEAST	Health Effects Assessment Summary Tables
HHRA	Human health risk assessment
IRIS	Integrated Risk Information System
mg/kg-day	Milligram per kilogram per day
PPRTV	Provisional Peer Reviewed Toxicity Values for Superfund
PRG	Preliminary remediation goal
R9	U.S. EPA Region 9 PRGs
R9-NCEA	Source of toxicity value listed as national Center for Environmental Assessment in the EPA Region 9 PRGs
R9-R	Route-extrapolated toxicity value as listed in the EPA Region 9 PRGs
RfD	Reference dose
ug/m^3	Microgram per cubic meter
URF	Unit risk factor

References:

EPA 1997. "Health Effects Assessment Summary Tables (HEAST)." Office of Research and Development.

EPA 2002. "EPA Region IX Preliminary Remediation Goals (PRG) 2002." October. Available on-line at: http://www.epa.gov/region09/waste/sfund/prg/

EPA 2003. Integrated Risk Information System (IRIS). Online Database. Available on-line at: http://www.epa.gov/iris

EPA 2004a. Integrated Risk Information System. Online Database. Available on the web at Http://www.epa.gov/iris

EPA 2004b. "Provisional Peer Reviewed Toxicity Values for Superfund (PPRTV)." Avaliable on the web on a trial basis at http://hhpprtv.orni.gov/

TABLE F-5.2.EPA
EPA RAGS PART D TABLE 5, EPA NON-CANCER TOXICITY DATA -- INHALATION
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD (1)		Primary Target Organ(s)	Combined Uncertainty/ Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
1,1-Dichlorethane	Chronic	--	--	1.4E-01	mg/kg-day	Kidney	1000	HEAST	1997
1,1-Dichlorethene	Chronic	2.0E-01	mg/m3	5.7E-02	mg/kg-day	Liver	30	IRIS	2/17/2004
1,1,1-Trichloroethane	Chronic	--	--	6.3E-01	mg/kg-day	Liver, Brain	90	PPRTV	2004
1,1,2-Trichloroethane	Chronic	1.4E-02	mg/m3	4.0E-03	mg/kg-day	Blood	1000	R9-R	10/1/2002
1,1,2,2-Tetrachloroethane	Chronic	--	--	6.00E-02	mg/kg-day	Liver, Kidney	--	R9-R	2004
1,2-Dichlorobenzene	Chronic	--	--	5.70E-02	mg/kg-day	No observed effect	--	HEAST	1997
1,2-Dichlorethane	Chronic	2.4E+00	mg/m3	6.9E-01	mg/kg-day	Liver	90	ATSDR	1/31/2003
1,2-Dichlorethene (Total)	Chronic	3.5E-02	mg/m3	1.0E-02	mg/kg-day	Blood	3000	PPRTV-R	1/13/2004
1,2-Dichloropropane	Chronic	--	--	1.10E-03	mg/kg-day	Nasal	--	IRIS	2004
1,2,4-Trimethylbenzene	Chronic	--	--	1.7E-03	mg/kg-day	CNS	3000	R9-NCEA	2002
1,3-Dichlorobenzene	Chronic	--	--	3.0E-02	mg/kg-day	Whole Body	--	R9-R	2004
1,3,5-Trimethylbenzene[a]	Chronic	--	--	1.7E-03	mg/kg-day	CNS	3000	R9-NCEA	2002
1,4-Dichlorobenzene	Chronic	8.0E-01	mg/m3	2.3E-01	mg/kg-day	Liver	100	IRIS	2/17/2004
2-Butanone	Chronic	5.0E+00	mg/m3	1.4E+00	mg/kg-day	Developmental	300	IRIS	2/17/2004
2-Hexanone[b]	Chronic	--	--	8.6E-01	mg/kg-day	CNS	--	Oral RfD	2004
2-Methylnaphthalene	--	--	--	--	--	--	--	--	--
2,4-Dimethylphenol	Chronic	--	--	2.00E-02	mg/kg-day	Brain/Body Systems	--	R9-R	2004
2,4-Dinitrotoluene	Chronic	7.0E-03	mg/m3	2.0E-03	mg/kg-day	CNS/Liver/Blood	100	R9-R	10/1/2002
3,3'-Dichlorobenzidine	--	--	--	--	--	--	--	--	--
4-Bromophenyl-phenylether	--	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	Chronic	--	--	8.6E-01	mg/kg-day	Fetus	3E+02	IRIS	2005
4,4-DDD[c]	Chronic	1.8E-03	mg/m3	5.0E-04	mg/kg-day	Liver	100	R9-R	10/1/2002
4,4-DDE[c]	Chronic	1.8E-03	mg/m3	5.0E-04	mg/kg-day	Liver	100	R9-R	10/1/2002
4,4'-DDT[c]	Chronic	1.8E-03	mg/m3	5.0E-04	mg/kg-day	Liver	100	R9-R	10/1/2002
alpha-BHC	Chronic	--	--	5.0E-04	mg/kg-day	Liver, Kidney	100	R9-R	2004
alpha-Chlordane	Chronic	--	--	2.0E-04	mg/kg-day	Liver	300	IRIS	2004
Acenaphthene	Chronic	2.1E-01	mg/m3	6.0E-02	mg/kg-day	Liver	3000	R9-R	10/1/2002
Acenaphthylene[d]	Chronic	--	--	6.0E-02	mg/kg-day	Liver	3000	R9-R	10/1/2002
Acetone	Chronic	--	--	9.0E-01	mg/kg-day	Kidney	1000	Oral RfD	2003
Aluminum	Chronic	5.0E-03	mg/m3	1.4E-03	mg/kg-day	Respiratory system	--	PPRTV	1/13/2004
Anthracene	Chronic	1.1E+00	mg/m3	3.0E-01	mg/kg-day	No observed effect	3000	R9-R	10/1/2002

TABLE F-5.2.EPA
EPA RAGS PART D TABLE 5, EPA NON-CANCER TOXICITY DATA -- INHALATION
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD (1)		Primary Target Organ(s)	Combined Uncertainty/ Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Antimony	--	--	--	--	--	--	--	--	--
Aroclor-1254	Chronic	7.0E-05	mg/m3	2.0E-05	mg/kg-day	Immune System/ Eye/Finger and Toe nails	300	R9-R	10/1/2002
Aroclor-1260[e]	Chronic	7.0E-05	mg/m3	2.0E-05	mg/kg-day	Immune System/ Eye/Finger and Toe nails	300	R9-R	10/1/2002
Arsenic	--	--	--	--	--	--	--	--	--
Barium	Chronic	4.9E-04	mg/m3	1.4E-04	mg/kg-day	Developmental	1000	HEAST	7/31/1997
Beryllium	Chronic	2.0E-05	mg/m3	5.7E-06	mg/kg-day	Immune System/Lung	10	IRIS	2/17/2004
Benzene	Chronic	3.0E-02	mg/m3	8.6E-03	mg/kg-day	Blood	300	IRIS	2/17/2004
Benzo(a)anthracene	--	--	--	--	--	--	--	--	--
Benzo(a)pyrene	--	--	--	--	--	--	--	--	--
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene[f]	Chronic	1.1E-01	mg/m3	3.0E-02	mg/kg-day	Kidney	3000	R9-R	10/1/2002
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	--
Beta-BHC	Chronic	--	--	2.0E-04	mg/kg-day	Liver/Reproductive System	--	Oral RfD	2002
bis(2-ethylhexyl)phthalate	Chronic	--	--	2.2E-02	mg/kg-day	Liver	--	R9-R	2004
Bromodichloromethane	Chronic	2.0E-02	mg/m3	2.0E-02	mg/kg-day	Kidney	1000	R9-R	2002
Butylbenzylphthalate	Chronic	--	--	2.0E-01	mg/kg-day	--	--	--	--
Cadmium	--	--	--	--	--	--	--	--	--
Carbazole	--	--	--	--	--	--	--	--	--
Carbon disulfide	Chronic	7.0E-01	mg/m3	2.0E-01	mg/kg-day	CNS	30	IRIS	2/17/2004
Chlordane	Chronic	--	--	2.0E-04	mg/kg-day	Liver	--	IRIS	2004
Chlorobenzene	Chronic	6.0E-02	mg/m3	1.7E-02	mg/kg-day	Liver	1000	NCEA	9/18/1998
Chloroethane	Chronic	--	--	2.9E+00	mg/kg-day	Fetus	300	IRIS	2003
Chloroform	Chronic	--	--	1.4E-04	mg/kg-day	Liver	--	NCEA	--
Chloromethane	Chronic	9.0E-02	mg/m3	2.6E-02	mg/kg-day	CNS	1000	IRIS	2/17/2004
Chromium[g]	--	--	--	--	--	--	--	--	--
Chromium (VI)	Chronic	--	--	2.2E-06	mg/kg-day	nasal	90	IRIS	2003
Chrysene	--	--	--	--	--	--	--	--	--
cis-1,2-Dichloroethene	Chronic	--	--	1.0E-02	mg/kg-day	Blood	3000	R9-R	2002
Cobalt	Chronic	2.0E-05	mg/m3	5.7E-06	mg/kg-day	Respiratory system	--	PPRTV	1/13/2004
Copper	--	--	--	--	--	--	--	--	--
Cyanide	--	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	--

TABLE F-5.2.EPA
EPA RAGS PART D TABLE 5, EPA NON-CANCER TOXICITY DATA -- INHALATION
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD (1)		Primary Target Organ(s)	Combined Uncertainty/ Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
Dibenzofuran	Chronic	7.0E-03	mg/m3	2.0E-03	mg/kg-day	Kidney	--	R6-R	1/13/2004
Dieldrin	Chronic	1.8E-04	mg/m3	5.0E-05	mg/kg-day	Liver	100	R9-R	10/1/2002
Diethylphthalate	Chronic	--	--	8.0E-01	mg/kg-day	Brain, Liver, Kidneys,Stomach,GI Tract	--	R9-R	2004
Dimethylphthalate	Chronic	--	--	1.0E+01	mg/kg-day	Kidney	--	R9-R	2004
di-n-Butylphthalate	--	--	--	1.0E-01	mg/kg-day	Liver	--	R9-R	2004
di-n-Octylphthalate	Chronic	--	--	4.0E-02	mg/kg-day	Liver	--	R9-R	2004
Endrin Ketone[h]	Chronic	1.1E-03	mg/m3	3.0E-04	mg/kg-day	CNS/Liver	100	R9-R	10/1/2002
Ethylbenzene	Chronic	1.0E+00	mg/m3	2.9E-01	mg/kg-day	Developmental	300	IRIS	2/17/2004
Fluoranthene	Chronic	1.4E-01	mg/m3	4.0E-02	mg/kg-day	Kidney/Liver/Blood	3000	R9-R	10/1/2002
Fluorene	Chronic	1.4E-01	mg/m3	4.0E-02	mg/kg-day	Blood	3000	R9-R	10/1/2002
gamma-BHC (Lindane)	Chronic	1.1E-03	mg/m3	3.0E-04	mg/kg-day	Liver/Kidney	1000	R9-R	10/1/2002
gamma-Chlordane	Chronic	7.0E-04	mg/m3	2.0E-04	mg/kg-day	Liver	1000	IRIS	2/17/2004
Heptachlor Epoxide	Chronic	4.6E-05	mg/m3	1.3E-05	mg/kg-day	Liver	1000	R9-R	10/1/2002
Hexachlorobutadiene	Chronic	--	--	3.0E-04	mg/kg-day	Kidney	--	Oral RfD	2002
Hexachlorobenzene	Chronic	2.8E-03	mg/m3	8.0E-04	mg/kg-day	Liver	100	R9-R	10/1/2002
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	--
Iron	--	--	--	--	--	--	--	--	--
Isopropylbenzene	Chronic	--	--	1.1E-01	mg/kg-day	Kidney	1000	IRIS	2/17/2004
Lead	--	--	--	--	--	--	--	--	--
Manganese[i]	Chronic	5.0E-05	mg/m3	1.4E-05	mg/kg-day	CNS	1000	IRIS	2/17/2004
Mercury	--	--	--	--	--	--	--	--	--
Methoxychlor	Chronic	1.8E-02	mg/m3	5.0E-03	mg/kg-day	Reproductive	1000	R9-R	10/1/2002
Methylene chloride	Chronic	3.0E+00	mg/m3	8.6E-01	mg/kg-day	Liver	100	HEAST	7/31/1997
Methyl-T-Butyl-ether	Chronic	3.0E+00	mg/m3	8.6E-01	mg/kg-day	Liver/Kidney/ Periocular Tissue	100	IRIS	2/17/2004
Molybdenum	--	--	--	--	--	--	--	--	--
m,p-Xylene[j]	Chronic	1.0E-01	mg/m3	2.9E-02	mg/kg-day	CNS	300	IRIS	2/17/2004
m-Xylene[j]	Chronic	1.0E-01	mg/m3	2.9E-02	mg/kg-day	CNS	300	IRIS	2/17/2004
Naphthalene	Chronic	3.0E-03	mg/m3	8.6E-04	mg/kg-day	Nasal Epithelium	3000	IRIS	2/17/2004
Nickel	Chronic	2.0E-04	mg/m3	5.7E-05	mg/kg-day	Respiratory system	30	ATSDR	1/31/2003
n-Butylbenzene	Chronic	--	mg/m3	4.0E-02	mg/kg-day	Kidney, Liver	--	R9-R	2004
n-Nitroso-diphenylamine	Chronic	--	--	2.0E-02	mg/kg-day	Bladder/Whole Body	--	Oral RfD	2004
n-Nitroso-di-n-propylamine	--	--	--	--	--	--	--	--	--

TABLE F-5.2.EPA
EPA RAGS PART D TABLE 5, EPA NON-CANCER TOXICITY DATA -- INHALATION
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD (1)		Primary Target Organ(s)	Combined Uncertainty/ Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)
n-propylbenzene	Chronic	--	--	4.0E-02	mg/kg-day	--	--	R9-R	2004
o-Xylene	Chronic	1.0E-01	mg/m3	2.9E-02	mg/kg-day	CNS	300	IRIS	2/17/2004
Pentachlorophenol	Chronic	--	--	3.0E-02	mg/kg-day	Liver, Kidney	--	R9-R	2004
Phenanthrene[k]	Chronic	1.1E+00	mg/m3	3.0E-01	mg/kg-day	No observed effect	3000	R9-R	10/1/2002
Phenol	Chronic	--	--	3.0E-01	mg/kg-day	Developmental	--	Oral RfD	2004
p-Isopropyltoluene	--	--	--	--	--	--	--	--	--
Pyrene	Chronic	1.1E-01	mg/m3	3.0E-02	mg/kg-day	Kidney	3000	R9-R	10/1/2002
sec-Butylbenzene	Chronic	4.0E-02	mg/m3	4.0E-02	mg/kg-day	Kidney	--	R9-R	2004
Selenium	--	--	--	--	--	--	--	--	--
Silver	--	--	--	--	--	--	--	--	--
tert-Butanol	--	--	--	--	--	--	--	--	--
tert-Butylbenzene	Chronic	4.0E-02	mg/m3	4.0E-02	mg/kg-day	Kidney	--	R9-R	2004
Tetrachloroethene	Chronic	6.0E-01	mg/m3	1.7E-01	mg/kg-day	CNS	100	NCEA	6/27/1997
Titanium	Chronic	--	--	8.6E-03	mg/kg-day	Respiratory system	--	NCEA	--
Thallium	--	--	--	--	--	--	--	--	--
Toluene	Chronic	4.0E-01	mg/m3	1.1E-01	mg/kg-day	CNS	300	IRIS	2/17/2004
trans-1,2-Dichloroethene	Chronic	--	--	2.0E-02	mg/kg-day	Blood	1000	Oral RfD	--
Trichloroethene	Chronic	4.0E-02	mg/m3	1.0E-02	mg/kg-day	CNS/Liver/Endocrine System	1000	NCEA	8/31/2001
vanadium	--	--	--	--	--	--	--	--	--
Vinyl chloride	Chronic	1.0E-01	mg/m3	2.9E-02	mg/kg-day	Liver	30	IRIS	2/17/2004
Xylene (Total)	Chronic	1.0E-01	mg/m3	2.9E-02	mg/kg-day	CNS	300	IRIS	2/17/2004
Zinc	--	--	--	--	--	--	--	--	--

Notes:

a 1,2,4-Trimethylbenzene used as a surrogate for toxicity information

b Methyl isobutyl ketone was used as a surrogate for toxicity information

c DDT used as a surrogate for toxicity information

d Acenapthene used as a surrgoate for toxicity information

e Aroclor 1254 used as a surrogate for toxicity information

f Pyrene used as a surrogate for toxicity information

g The oral RfD for trivalent chromium was used as the surrogate toxicity value because hexavalent chromium speciated and evaluated separately.

h Endrin used as a surrogate for toxicity information

TABLE F-5.2.EPA
EPA RAGS PART D TABLE 5, EPA NON-CANCER TOXICITY DATA -- INHALATION
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Chronic/ Subchronic	Inhalation RfC		Extrapolated RfD (1)		Primary Target Organ(s)	Combined Uncertainty/ Modifying Factors	RfC : Target Organ(s)	
		Value	Units	Value	Units			Source(s)	Date(s) (MM/DD/YYYY)

i The oral RFD for non-food sources of manganese (such as soil and drinking water) was modified from the oral RFD which includes all sources, including diet (IRIS 2003).

j The oral RfD for total xylene was used as the surrogate toxicity value.

k Anthracene used as a surrogate for toxicity information

(1) RfD = (RfC*20m3/day)/70kg

Oral RfD = For organic compound, where an inhalation RfC or RfD was not available, the oral RfD from Table 5.1 was used. See Table 5.1 for value specific references.

r	Route-to-route Extrapolation
--	Not available; not applicable
CSF	Cancer slope factor
CNS	Central nervous system
EPA	Environmental Protection Agency
GI Tract	Gastrointestinal Tract
HEAST	Health Effects Assessment Summary Tables
HHRA	Human health risk assessment
IRIS	Integrated Risk Information System
mg/kg-day	Milligram per kilogram per day
PPRTV	Provisional Peer Reviewed Toxicity Values for Superfund
PRG	Preliminary remediation goal
R9	U.S. EPA Region 9 PRGs
R9-NCEA	Source of toxicity value listed as national Center for Environmental Assessment in the EPA Region 9 PRGs
R9-R	Route-extrapolated toxicity value as listed in the EPA Region 9 PRGs
RfD	Reference dose
ug/m^3	Microgram per cubic meter
URF	Unit risk factor

References:

EPA 1997. "Health Effects Assessment Summary Tables (HEAST)." Office of Research and Development.

EPA 2002. "EPA Region IX Preliminary Remediation Goals (PRG) 2002." October. Available on-line at: http://www.epa.gov/region09/waste/sfund/prg/

EPA 2003. Integrated Risk Information System (IRIS). Online Database. Available on-line at: http://www.epa.gov/iris

EPA 2004a. Integrated Risk Information System. Online Database. Available on the web at Http://www.epa.gov/iris

EPA 2004b. "Provisional Peer Reviewed Toxicity Values for Superfund (PPRTV)." Avaliable on the web on a trial basis at http://hhpprtv.orni.gov/

TABLE F-6.1 EPA
EPA RAGS PART D TABLE 6, EPA CANCER TOXICITY DATA -- ORAL/DERMAL
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal	Absorbed Cancer Slope Factor for Dermal		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s)
1,1-Dichloroethane	5.7E-03	$(mg/kg\text{-}day)^{-1}$	100%	5.7E-03	(mg/kg-day)-1	C	OEHHA	--
1,1-Dichloroethene	--	--	--	--	--	C	IRIS	2003
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--
1,1,2-Trichloroethane	5.7E-02	$(mg/kg\text{-}day)^{-1}$	100%	5.7E-02	$(mg/kg\text{-}day)^{-1}$	C	IRIS	2004
1,1,2,2-Tetrachloroethane	2.0E-01	$(mg/kg\text{-}day)^{-1}$	100%	2.00E-01	$(mg/kg\text{-}day)^{-1}$	--	IRIS	2004
1,2-Dichlorobenzene	--	--	--	--	--	--	--	--
1,2-Dichloroethane	9.1E-02	$(mg/kg\text{-}day)^{-1}$	100%	9.1E-02	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
1,2-Dichloroethene (Total)	--	--	--	--	--	D (IRIS 2003)	IRIS	2003
1,2-Dichloropropane	6.80E-02	$(mg/kg\text{-}day)^{-1}$	100%	6.80E-02	$(mg/kg\text{-}day)^{-1}$	--	HEAST	1997
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene[a]	--	--	--	--	--	--	--	--
1,4-Dichlorobenzene	2.4E-02	$(mg/kg\text{-}day)^{-1}$	100%	2.4E-02	$(mg/kg\text{-}day)^{-1}$	C	HEAST	1997
2-Butanone	--	--	--	--	--	DI	IRIS	2004
2-Hexanone	--	--	--	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	--	DI	IRIS	2004
2,4-Dimethylphenol	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene (2,4/2,6 mixture)	6.8E-01	$(mg/kg\text{-}day)^{-1}$	100%	6.8E-01	(mg/kg-day)-1	--	IRIS	2004
3,3 Dichlorobenzidine	4.50E-01	$(mg/kg\text{-}day)^{-1}$	100%	4.50E-01	$(mg/kg\text{-}day)^{-1}$	--	IRIS	2004
4-Bromophenyl-phenylether	--	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--	--	--
4-Methyl-2-pentanone	--	--	--	--	--	--	--	--
4,4'-DDD	2.4E-01	$(mg/kg\text{-}day)^{-1}$	100%	2.4E-01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
4,4'-DDE[b]	3.4E-01	$(mg/kg\text{-}day)^{-1}$	100%	3.4E-01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
4,4'-DDT	3.4E-01	$(mg/kg\text{-}day)^{-1}$	100%	3.4E-01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
alpha-BHC	6.3E+00	$(mg/kg\text{-}day)^{-1}$	100%	6.3E+00	$(mg/kg\text{-}day)^{-1}$		IRIS	2004
alpha-Chlordane[c]	3.5E-01	$(mg/kg\text{-}day)^{-1}$	100%	3.5E-01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Acenaphthene	--	--	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	--	D	IRIS	2004
Acetone	--	--	--	--	--	DI	IRIS	2004
Aluminum	--	--	--	--	--	--	--	--
Anthracene	--	--	--	--	--	D	IRIS	2004
Antimony	--	--	--	--	--	--	--	--

TABLE F-6.1 EPA
EPA RAGS PART D TABLE 6, EPA CANCER TOXICITY DATA -- ORAL/DERMAL
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal	Absorbed Cancer Slope Factor for Dermal		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s)
Aroclor-1254	2.0E+00	$(mg/kg\text{-}day)^{-1}$	100%	2.0E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Aroclor-1260	2.0E+00	$(mg/kg\text{-}day)^{-1}$	100%	2.0E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Arsenic	1.5E+00	$(mg/kg\text{-}day)^{-1}$	100%	1.5E+00	$(mg/kg\text{-}day)^{-1}$	A	IRIS	2004
Barium	--	--	--	--	--	D	IRIS	2004
Beryllium	--	--	--	--	--	B1	IRIS	9/3/2003
Benzene	5.5E-02	$(mg/kg\text{-}day)^{-1}$	100%	5.5E-02	$(mg/kg\text{-}day)^{-1}$	A	IRIS	2004
Benzo(a)anthracene	7.3E-01	$(mg/kg\text{-}day)^{-1}$	100%	7.3E-01	$(mg/kg\text{-}day)^{-1}$	B2	BaP Eq	9/3/2003
Benzo(a)pyrene	7.3E+00	$(mg/kg\text{-}day)^{-1}$	100%	7.3E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Benzo(b)fluoranthene	7.3E-01	$(mg/kg\text{-}day)^{-1}$	100%	7.3E-01	$(mg/kg\text{-}day)^{-1}$	B2	BaP Eq	9/3/2003
Benzo(g,h,i)perylene	--	--	--	--	--	D	IRIS	2004
Benzo(k)fluoranthene	7.3E-02	$(mg/kg\text{-}day)^{-1}$	100%	7.3E-02	$(mg/kg\text{-}day)^{-1}$	B2	BaP Eq	9/3/2003
Beta-BHC	1.8E+00	$(mg/kg\text{-}day)^{-1}$	100%	1.8E+00	$(mg/kg\text{-}day)^{-1}$	C	IRIS	2004
bis(2-ethylhexyl)phthalate	1.4E-02	$(mg/kg\text{-}day)^{-1}$	--	--	--	--	IRIS	2004
Bromodichloromethane	6.2E-02	$(mg/kg\text{-}day)^{-1}$	100%	6.2E-02	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	IRIS	2004
Butylbenzylphthalate	--	--	--	--	--	--	--	--
Cadmium	--	--	--	--	--	B1	IRIS	2004
Carbazole	2.0E-02	$(mg/kg\text{-}day)^{-1}$	100%	2.0E-02	$(mg/kg\text{-}day)^{-1}$	B2	HEAST	7/31/1997
Carbon disulfide	--	--	--	--	--	--	--	--
Chlordane	3.5E-01	$(mg/kg\text{-}day)^{-1}$	100%	3.5E-01	$(mg/kg\text{-}day)^{-1}$	--	IRIS	2004
Chlorobenzene	--	--	--	--	--	D	IRIS	2004
Chloroethane	2.9E-03	$(mg/kg\text{-}day)^{-1}$	100%	2.9E-03	$(mg/kg\text{-}day)^{-1}$	B2 (NCEA 1993)	R9-NCEA	2002
Chloroform	--	--	--	--	--	B2	IRIS	2004
Chloromethane	--	--	--	--	--	D	IRIS	2004
Chromium	--	--	--	--	--	D	IRIS	2003
Chromium (VI)	--	--	--	--	--	D	IRIS	2003
Chrysene	7.3E-03	$(mg/kg\text{-}day)^{-1}$	100%	7.3E-03	$(mg/kg\text{-}day)^{-1}$	B2	BaP Eq	9/3/2003
cis-1,2-Dichloroethene	--	--	--	--	--	D	IRIS	2003
Cobalt	--	--	--	--	--	B1	PPRTV	12/2003
Copper	--	--	--	--	--	D	IRIS	2004
Cyanide	--	--	--	--	--	--	--	--
Dibenzo(a,h)anthracene	7.3E+00	$(mg/kg\text{-}day)^{-1}$	100%	7.3E+00	$(mg/kg\text{-}day)^{-1}$	B2	BaP Eq	9/3/2003
Dibenzofuran	--	--	--	--	--	D	IRIS	2004
Dieldrin	1.6E+01	$(mg/kg\text{-}day)^{-1}$	100%	1.6E+01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004

TABLE F-6.1 EPA
EPA RAGS PART D TABLE 6, EPA CANCER TOXICITY DATA -- ORAL/DERMAL
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal	Absorbed Cancer Slope Factor for Dermal		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s)
Diethylphthalate	--	--	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--	--	--
di-n-Butylphthalate	--	--	--	--	--	--	--	--
di-n-Octylphthalate	--	--	--	--	--	--	--	--
Endrin Ketone	--	--	--	--	--	D	IRIS	2004
Ethylbenzene	--	--	--	--	--	D	IRIS	2004
Fluoranthene	--	--	--	--	--	D	IRIS	2004
Fluorene	--	--	--	--	--	D	IRIS	2004
gamma-BHC (Lindane)	1.3E+00	$(mg/kg\text{-}day)^{-1}$	100%	1.3E+00	$(mg/kg\text{-}day)^{-1}$	B2/C	HEAST	7/31/1997
gamma-Chlordane	3.5E-01	$(mg/kg\text{-}day)^{-1}$	100%	3.5E-01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Heptachlor Epoxide	9.1E+00	$(mg/kg\text{-}day)^{-1}$	100%	9.1E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Hexachlorobutadiene	7.8E-02	$(mg/kg\text{-}day)^{-1}$	100%	7.8E-02	$(mg/kg\text{-}day)^{-1}$	C (IRIS 2003)	IRIS	2003
Indeno(1,2,3-c,d)pyrene	7.3E-01	$(mg/kg\text{-}day)^{-1}$	100%	7.3E-01	$(mg/kg\text{-}day)^{-1}$	B2	BaP Eq	9/3/2003
Iron	--	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--	--
Lead	--	--	--	--	--	--	--	--
Manganese	--	--	--	--	--	D	IRIS	2004
Mercury	--	--	--	--	--	D	IRIS	2004
Methoxychlor	--	--	--	--	--	D	IRIS	2004
Methylene Chloride	7.5E-03	$(mg/kg\text{-}day)^{-1}$	100%	7.5E-03	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	IRIS	2003
Methyl-T-Butyl-ether	1.8E-03	$(mg/kg\text{-}day)^{-1}$	100%	1.8E-03	$(mg/kg\text{-}day)^{-1}$	--	OEHHA	--
Molybdenum	--	--	--	--	--	--	--	--
m,p-Xylene	--	--	--	--	--	--	--	--
m-Xylene	--	--	--	--	--	--	--	--
Naphthalene	1.2E-01	$(mg/kg\text{-}day)^{-1}$	100%	1.2E-01	(mg/kg-day)-1	C	OEHHA	--
Nickel	--	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--	--
n-Nitrosodiphenylamine	4.9E-03	$(mg/kg\text{-}day)^{-1}$	100%	4.9E-03	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
n-Nitroso-di-n-propylamine	7.0E+00	$(mg/kg\text{-}day)^{-1}$	100%	7.0E+00	$(mg/kg\text{-}day)^{-1}$	--	IRIS	2004
n-propylbenzene	--	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--	--
Pentachlorophenol	1.2E-01	$(mg/kg\text{-}day)^{-1}$	100%	1.2E-01	$(mg/kg\text{-}day)^{-1}$	--	IRIS	2004
Phenanthrene	--	--	--	--	--	D	IRIS	2004

TABLE F-6.1 EPA
EPA RAGS PART D TABLE 6, EPA CANCER TOXICITY DATA -- ORAL/DERMAL
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal	Absorbed Cancer Slope Factor for Dermal		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s)
Phenol	--	--	--	--	--	--	--	--
p-Isopropyltoluene	--	--	--	--	--	--	--	--
Pyrene	--	--	--	--	--	D	IRIS	2004
sec-Butylbenzene	--	--	--	--	--	--	--	--
Selenium	--	--	--	--	--	D	IRIS	2004
Silver	--	--	--	--	--	D	IRIS	2004
tert-Butanol	--	--	--	--	--	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--	--
Tetrachloroethene	5.4E-01	$(mg/kg\text{-}day)^{-1}$	100%	5.4E-01	$(mg/kg\text{-}day)^{-1}$	--	Cal/EPA	9/2003
Thallium	--	--	--	--	--	--	--	--
Titanium	--	--	--	--	--	--	--	--
Toluene	--	--	--	--	--	D	IRIS	2004
trans-1,2-Dichloroethene	--	--	--	--	--	--	--	--
Trichloroethene	4.0E-01	$(mg/kg\text{-}day)^{-1}$	100%	4.0E-01	$(mg/kg\text{-}day)^{-1}$	B1 (NCEA 2001)	R9-NCEA	2002
Vanadium	--	--	--	--	--	--	--	--
Vinyl chloride[d]	0.72 (res), 1.5 (adult)	$(mg/kg\text{-}day)^{-1}$	100%	0.72 (res), 1.5 (adult)	$(mg/kg\text{-}day)^{-1}$	A	IRIS	2004
Xylenes (Total)	--	--	--	--	--	DI	IRIS	2004
Zinc	--	--	--	--	--	D	IRIS	2004

Notes:

* For organics, where oral or dermal slope factor were not available, the inhalation slope factor was used.

a The oral SF for 1,2,4-trimethylbenzene was used as the surrogate toxicity value.

b DDT used as a surrogate for toxicity information

c Chlordane used as surrogate for toxicity information

d Two separate toxicity values used to residential receptors (res) and commercial industrial and construction receptors (adult). The vinyl chloride oral cancer slope factor for continuous lifetime exposure during adulthood was used to estimate risks for the industrial/commercial scenarios. The vinyl chloride oral cancer slope factor for continuous lifetime exposure from birth was used to estimate risks for the residential scenarios.

r	Route- Extrapolation
n	Not available; not applicable
CSF	Cancer slope factor
EPA	Environmental Protection Agency

TABLE F-6.1 EPA
EPA RAGS PART D TABLE 6, EPA CANCER TOXICITY DATA -- ORAL/DERMAL
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Oral Cancer Slope Factor		Oral Absorption Efficiency for Dermal	Absorbed Cancer Slope Factor for Dermal		Weight of Evidence/ Cancer Guideline Description	Oral CSF	
	Value	Units		Value	Units		Source(s)	Date(s)

HEAST	Health Effects Assessment Summary Tables
IRIS	Integrated Risk Information System
mg/kg-day	Milligram per kilogram per day
PRG	Preliminary remediation goal
R9	U.S. EPA Region 9 PRGs
R9-NCEA	Source of toxicity value listed as national Center for Environmental Assessment in the EPA Region 9 PRGs
R9-R	Route-extrapolated toxicity value as listed in the EPA Region 9 PRGs
ug/m^3	Microgram per cubic meter
URF	Unit risk factor

References:

EPA 1997. "Health Effects Assessment Summary Tables (HEAST)." Office of Research and Development.

EPA 2002. "EPA Region IX Preliminary Remediation Goals (PRG) 2002." October. Available on-line at: http://www.epa.gov/region09/waste/sfund/prg/

EPA 2003. Integrated Risk Information System (IRIS). Online Database. Available on-line at: http://www.epa.gov/iris

EPA 2004a. Integrated Risk Information System. Online Database. Available on the web at http://www.epa.gov/iris

EPA 2004b. "Provisional Peer Reviewed Toxicity Values for Superfund (PPRTV)." Available on the web on a trial basis at http://hhpprtv.oml.gov/

EPA 2004c. "EPA Region 6-RCRA Medium-Specific Screening Levles. " Available on the web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm

TABLE F-6.2.EPA
EPA RAGS PART D TABLE 6, EPA CANCER TOXICITY DATA -- INHALATION
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
1,1-Dichloroethane	--	--	5.7E-03	$(mg/kg\text{-}day)^{-1}$	C (IRIS 2003)	OEHHA	--
1,1-Dichlorethene	--	--	--	--	C (IRIS 2003)	IRIS	2003
1,1,1-Trichloroethane	--	--	--	--	--	--	--
1,1,2-Trichloroethane	1.6E-05	$(ug/m^3)^{-1}$	5.6E-02	$(mg/kg\text{-}day)^{-1}$	C (IRIS 2003)	IRIS	2003
1,1,2,2-Tetrachloroethane	--	--	2.00E-01	$(mg/kg\text{-}day)^{-1}$	--	IRIS	--
1,2-Dichlorobenzene	--	--	--	--	--	NA	--
1,2-Dichloroethane	2.6E-05	$(ug/m^3)^{-1}$	9.1E-02	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	IRIS	2003
1,2-Dichloroethene (Total)	--	--	--	--	D (IRIS 2003)	IRIS	--
1,2-Dichloropropane	--	--	6.80E-02	$(mg/kg\text{-}day)^{-1}$	--	r	--
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--
1,3-Dichlorobenzene	--	--	--	--	--	--	--
1,3,5-Trimethylbenzene[a]	--	--	--	--	--	--	--
1,4-Dichlorobenzene	--	--	2.2E-02	$(mg/kg\text{-}day)^{-1}$	C	NCEA	--
2-Butanone	--	--	--	--	DI	IRIS	2004
2-Hexanone	--	--	--	--	--	--	--
2-Methylnaphthalene	--	--	--	--	DI	IRIS	2004
2,4-Dimethylphenol	--	--	--	--	--	--	--
2,4-Dinitrotoluene (2,4/2,6 mix)	--	--	6.8E-01	$(mg/kg\text{-}day)^{-1}$	--	R9-R	--
3,3 Dichlorobenzidine	--	--	4.50E-01	$(mg/kg\text{-}day)^{-1}$	--	r	--
4-Bromophenyl-phenylether	--	--	--	--	--	--	--
4-Chlorophenyl-phenylether	--	--	--	--	--	--	--
4-Methyl-2-pentanone	--	--	--	--	--	--	--
4,4'-DDD	--	--	2.40E-01	$(mg/kg\text{-}day)^{-1}$	B2	R9-R	2002
4,4'-DDE[b]	--	--	3.40E-01	$(mg/kg\text{-}day)^{-1}$	B2	R9-R	2002
4,4'-DDT	9.7E-02	(ug/m3)-1	3.40E-01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
alpha-BHC	--	--	6.3E+00	$(mg/kg\text{-}day)^{-1}$	--	IRIS	2004
alpha-Chlordane[c]	--	--	3.50E-01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Acenaphthene	--	--	--	--	--	--	--
Acenaphthylene	--	--	--	--	D	IRIS	2004
Acetone	--	--	--	--	DI	IRIS	2004
Aluminum	--	--	--	--	--	--	--
Anthracene	--	--	--	--	D	IRIS	2004

TABLE F-6.2.EPA
EPA RAGS PART D TABLE 6, EPA CANCER TOXICITY DATA -- INHALATION
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Antimony	--	--	--	--	--	--	--
Aroclor-1254	--	--	2.0E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Aroclor-1260	--	--	2.0E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Arsenic	4.3E-03	$(ug/m^3)^{-1}$	1.5E+01	$(mg/kg\text{-}day)^{-1}$	A (IRIS 2003)	IRIS	2003
Barium	--	--	--	--	D	IRIS	2004
Beryllium	2.4E-03	(ug/m3)-1	8.4E+00	$(mg/kg\text{-}day)^{-1}$	B1	IRIS	2004
Benzene	7.8E-06	$(ug/m^3)^{-1}$	2.7E-02	$(mg/kg\text{-}day)^{-1}$	A (IRIS 2003)	IRIS	2003
Benzo(a)anthracene	2.1E-04	$(ug/m^3)^{-1}$	7.3E-01	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	R9-R	2002
Benzo(a)pyrene	2.1E-03	$(ug/m^3)^{-1}$	7.3E+00	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	R9-R	2002
Benzo(b)fluoranthene	2.1E-04	$(ug/m^3)^{-1}$	7.3E-01	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	R9-R	2002
Benzo(g,h,i)perylene	--	--	--	--	--	--	--
Benzo(k)fluoranthene	2.1E-05	$(ug/m^3)^{-1}$	7.3E-02	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	R9-R	2002
Beta-BHC	--	--	1.8E+00	$(mg/kg\text{-}day)^{-1}$	C	IRIS	2004
bis(2-ethylhexyl)phthalate	--	--	1.4E-02	$(mg/kg\text{-}day)^{-1}$	--	r	--
Bromodichloromethane	1.8E-05	$(ug/m^3)^{-1}$	6.2E-02	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	R9-R	2002
Butylbenzylphthalate	--	--	--	--	--	--	--
Cadmium	1.8E-03	$(ug/m^3)^{-1}$	6.3E+00	$(mg/kg\text{-}day)^{-1}$	B1 (IRIS 2003)	IRIS	2003
Carbazole	--	--	2.0E-02	$(mg/kg\text{-}day)^{-1}$	B2	R9-R	2002
Carbon disulfide	--	--	--	--	--	--	--
Chlordane	--	--	3.5E-01	$(mg/kg\text{-}day)^{-1}$	--	IRIS	--
Chlorobenzene	--	--	--	--	D	IRIS	2004
Chloroethane	8.3E-07	$(ug/m^3)^{-1}$	2.9E-03	$(mg/kg\text{-}day)^{-1}$	B2 (NCEA 1993)	R9-R	2002
Chloroform	2.3E-05	$(ug/m^3)^{-1}$	8.1E-02	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	IRIS	2003
Chloromethane	--	--	--	--	D (IRIS 2003)	IRIS	2003
Chromium	--	--	--	--	D	IRIS	2004
Chromium (VI)	1.2E-02	$(ug/m^3)^{-1}$	2.90E+02	$(mg/kg\text{-}day)^{-1}$	A (IRIS 2003)	IRIS	2003
Chrysene	2.1E-06	$(ug/m^3)^{-1}$	7.3E-03	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	R9-R	2002
cis-1,2-Dichloroethene	--	--	--	$(mg/kg\text{-}day)^{-1}$	D (IRIS 2003)	IRIS	2003
Cobalt	2.8E-03	(ug/m3)-1	9.8E+00	$(mg/kg\text{-}day)^{-1}$	B1	NCEA	2003
Copper	--	--	--	--	D	IRIS	2004
Cyanide	--	--	--	--	--	--	--

TABLE F-6.2.EPA
EPA RAGS PART D TABLE 6, EPA CANCER TOXICITY DATA -- INHALATION
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
Dibenzo(a,h)anthracene	2.1E-03	$(ug/m^3)^{-1}$	7.3E+00	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	IRIS	2003
Dibenzofuran	--	--	--	--	D	IRIS	2004
Dieldrin	4.6E-03	(ug/m3)-1	1.6E+01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Diethylphthalate	--	--	--	--	--	--	--
Dimethylphthalate	--	--	--	--	--	--	--
di-n-Butylphthalate	--	--	--	--	--	--	--
di-n-Octylphthalate	--	--	--	--	--	--	--
Endrin Ketone	--	--	--	--	D	IRIS	2004
Ethylbenzene	--	--	--	--	D (IRIS 2003)	IRIS	2003
Fluoranthene	--	--	--	--	D	IRIS	2004
Fluorene	--	--	--	--	D	IRIS	2004
gamma-BHC (Lindane)	--	--	1.3E+00	$(mg/kg\text{-}day)^{-1}$	--	R9-R	2002
gamma-Chlordane[c]	1.0E-04	(ug/m3)-1	3.5E-01	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Heptachlor Epoxide	2.6E-03	(ug/m3)-1	9.1E+00	$(mg/kg\text{-}day)^{-1}$	B2	IRIS	2004
Hexachlorobutadiene	2.2E-05	$(ug/m^3)^{-1}$	7.8E-02	$(mg/kg\text{-}day)^{-1}$	--	IRIS	2003
Indeno(1,2,3-c,d)pyrene	2.1E-04	$(ug/m^3)^{-1}$	7.3E-01	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	IRIS	2003
Iron	--	--	--	--	--	--	--
Isopropylbenzene	--	--	--	--	--	--	--
Lead	--	--	--	--	B2 (IRIS 2003)	IRIS	2003
Manganese	--	--	--	--	D (IRIS 2003)	IRIS	2003
Mercury	--	--	--	--	D	IRIS	2004
Methoxychlor	--	--	--	--	D	IRIS	2004
Methylene chloride	4.7E-07	$(ug/m^3)^{-1}$	1.6E-03	$(mg/kg\text{-}day)^{-1}$	B2 (IRIS 2003)	IRIS	2003
Methyl tertbutyl ether	--	--	9.1E-04	$(mg/kg\text{-}day)^{-1}$	--	OEHHA	--
Molybdenum	--	--	--	--	--	--	--
m,p-Xylene	--	--	--	--	--	--	--
m-Xylene	--	--	--	--	--	--	--
Naphthalene	--	--	1.2E-01	$(mg/kg\text{-}day)^{-1}$	--	OEHHA	--
Nickel	--	--	--	--	--	--	--
n-Butylbenzene	--	--	--	--	--	--	--
n-Nitrosodiphenylamine	--	--	4.9E-03	$(mg/kg\text{-}day)^{-1}$	B2	R9-R	2002
n-Nitroso-di-n-propylamine	--	--	7.0E+00	$(mg/kg\text{-}day)^{-1}$	--	r	--

TABLE F-6.2.EPA
EPA RAGS PART D TABLE 6, EPA CANCER TOXICITY DATA -- INHALATION
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)
n-propylbenzene	--	--	--	--	--	--	--
o-Xylene	--	--	--	--	--	--	--
Pentachlorophenol	--	--	1.2E-01	$(mg/kg\text{-}day)^{-1}$	--	r	--
Phenanthrene	--	--	--	--	D	IRIS	2004
Phenol	--	--	--	--	--	--	--
p-Isopropyltoluene	--	--	--	--	--	--	--
Pyrene	--	--	--	--	D	IRIS	2004
sec-Butylbenzene	--	--	--	--	--	--	--
Selenium	--	--	--	--	D	IRIS	2004
Silver	--	--	--	--	D	IRIS	2004
tert-Butanol	--	--	--	--	--	--	--
tert-Butylbenzene	--	--	--	--	--	--	--
Tetrachloroethene	5.9E-06	$(ug/m^3)^{-1}$	2.1E-02	$(mg/kg\text{-}day)^{-1}$	--	Cal/EPA	2003
Thallium	--	--	--	--	--	--	--
Titanium	--	--	--	--	--	--	--
Toluene	--	--	--	--	D	IRIS	2004
trans-1,2-Dichloroethene	--	--	--	--	--	--	--
Trichloroethene	1.1E-04	$(ug/m^3)^{-1}$	4.0E-01	$(mg/kg\text{-}day)^{-1}$	B1 (NCEA 2001)	R9-NCEA	2001
Vanadium	--	--	--	--	--	--	--
Vinyl chloride[d]	--	--	0.031 (res), 0.016 (adult)	$(mg/kg\text{-}day)^{-1}$	A (IRIS 2003)	IRIS	2003
Xylenes (Total)	--	--	--	--	DI	IRIS	2004
Zinc	--	--	--	--	D	IRIS	2004

Notes:

a The oral SF for 1,2,4-trimethylbenzene was used as the surrogate toxicity value.

b DDT used as a surrogate for toxicity information

c Chlordane used as a surrogate for toxicity information

d Two separate toxicity values used to residential receptors (res) and commercial industrial and construction receptors (adult). The vinyl chloride oral cancer slope factor for continuous lifetime exposure during adulthood was used to estimate risks for the industrial/commercial scenarios. The vinyl chloride oral cancer slope factor for continuous lifetime exposure from birth was used to estimate risks for the residential scenarios.

EPA Weight-of-Evidence Classification:

B1	Probable human carcinogen - indicates that limited human data are available
B2	Probable human carcinogen - indicates sufficient evidence in animals and inadequate or no evidence in humans
C	Possible human carcinogen
D	Not classifiable as to human carcinogenicity
DI	Date inadequate to assess cacinogenicity (EPA 2004a)

TABLE F-6.2.EPA
EPA RAGS PART D TABLE 6, EPA CANCER TOXICITY DATA -- INHALATION
HHRA FOR CERCLA SITES 3, 4, 11, AND 21, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Chemical of Potential Concern	Unit Risk		Inhalation Cancer Slope Factor		Weight of Evidence/ Cancer Guideline Description	Unit Risk : Inhalation CSF	
	Value	Units	Value	Units		Source(s)	Date(s) (MM/DD/YYYY)

r	Route- Extrapolation
NA	Not available; not applicable
CSF	Cancer slope factor
Cal/EPA	California Environmental Protection Agency Office of Envronmental Health Hazard Asessment cancer ptency values (Cal/EPA 2003b).
EPA	Environmental Protection Agency
HEAST	Health Effects Assessment Summary Tables
IRIS	Integrated Risk Information System
(mg/kg-day)-1	Milligram per kilogram per day
PRG	Preliminary remediation goal
R9	U.S. EPA Region 9 PRGs
R9-NCEA	Source of toxicity value listed as National Center for Environmental Assessment in the EPA Region 9 PRGs
R9-R	Route-extrapolated toxicity value as listed in the EPA Region 9 PRGs
ug/m^3	Microgram per cubic meter
URF	Unit risk factor

References:

EPA 1997. "Health Effects Assessment Summary Tables (HEAST)." Office of Research and Development.

EPA 2002. "EPA Region IX Preliminary Remediation Goals (PRG) 2002." October. Available on-line at: http://www.epa.gov/region09/waste/sfund/prg/

EPA 2003. Integrated Risk Information System (IRIS). Online Database. Available on-line at: http://www.epa.gov/iris

EPA 2004a. Integrated Risk Information System. Online Database. Available on the web at http://www.epa.gov/iris

EPA. 2004c. "EPA Region 6-RcRA Medium-Specific Screening Levels." Available on the web at http://www.epa.gov/earth1r6/6pd/rcra_c/pd-n/screen.htm

TABLE F-7.1.1.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS
CURRENT INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Current
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs)	Soil	Site Soil	Ingestion	2-Methylnaphthalene	2.85E-02	mg/kg	2.79E-08	mg/kg-day	4.00E-03	mg/kg-day	6.97E-06
				4,4'-DDT	9.65E-03	mg/kg	9.44E-09	mg/kg-day	5.00E-04	mg/kg-day	1.89E-05
				Acenaphthene	1.46E-01	mg/kg	1.43E-07	mg/kg-day	6.00E-02	mg/kg-day	2.38E-06
				Acenaphthylene	1.56E-02	mg/kg	1.53E-08	mg/kg-day	6.00E-02	mg/kg-day	2.54E-07
				Acetone	1.40E-01	mg/kg	1.37E-07	mg/kg-day	9.00E-01	mg/kg-day	1.52E-07
				alpha-Chlordane	1.90E-03	mg/kg	1.86E-09	mg/kg-day	5.00E-04	mg/kg-day	3.72E-06
				Aluminum	9.36E+03	mg/kg	9.16E-03	mg/kg-day	1.00E+00	mg/kg-day	9.16E-03
				Anthracene	4.19E-01	mg/kg	4.10E-07	mg/kg-day	3.00E-01	mg/kg-day	1.37E-06
				Aroclor-1260	2.01E+00	mg/kg	1.96E-06	mg/kg-day	2.00E-05	mg/kg-day	9.82E-02
				Arsenic	7.86E+00	mg/kg	7.69E-06	mg/kg-day	3.00E-04	mg/kg-day	2.56E-02
				Barium	1.09E+02	mg/kg	1.07E-04	mg/kg-day	7.00E-02	mg/kg-day	1.53E-03
				Benzo(a)anthracene	1.05E+00	mg/kg	1.03E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.58E-01	mg/kg	8.40E-07	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.81E-01	mg/kg	1.77E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.86E-01	mg/kg	1.82E-07	mg/kg-day	3.00E-02	mg/kg-day	6.07E-06
				Benzo(k)fluoranthene	5.78E-01	mg/kg	5.66E-07	mg/kg-day	--	--	--
				Beryllium	1.07E+00	mg/kg	1.05E-06	mg/kg-day	2.00E-03	mg/kg-day	5.26E-04
				Cadmium	8.26E-01	mg/kg	8.08E-07	mg/kg-day	5.00E-04	mg/kg-day	1.62E-03
				Carbazole	1.60E-01	mg/kg	1.57E-07	mg/kg-day	--	--	--
				Chlordane	1.49E-01	mg/kg	1.46E-07	mg/kg-day	5.00E-04	mg/kg-day	2.91E-04
				Chromium	3.18E+01	mg/kg	3.11E-05	mg/kg-day	1.50E+00	mg/kg-day	2.08E-05
				Chrysene	2.08E-01	mg/kg	2.03E-07	mg/kg-day	--	--	--
				Cobalt	7.26E+00	mg/kg	7.10E-06	mg/kg-day	2.00E-02	mg/kg-day	3.55E-04
				Copper	3.71E+01	mg/kg	3.63E-05	mg/kg-day	4.00E-02	mg/kg-day	9.07E-04
				Dibenzo(a,h)anthracene	7.09E-02	mg/kg	6.94E-08	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	1.17E-06	mg/kg-day	2.00E-03	mg/kg-day	5.87E-04
				Diethylphthalate	2.20E-02	mg/kg	2.15E-08	mg/kg-day	8.00E-01	mg/kg-day	2.69E-08
				di-n-Butylphthalate	1.30E-01	mg/kg	1.27E-07	mg/kg-day	1.00E-01	mg/kg-day	1.27E-06
				Fluoranthene	4.21E+00	mg/kg	4.12E-06	mg/kg-day	4.00E-02	mg/kg-day	1.03E-04
				Fluorene	2.16E-01	mg/kg	2.12E-07	mg/kg-day	4.00E-02	mg/kg-day	5.29E-06
				gamma-Chlordane	2.00E-03	mg/kg	1.96E-09	mg/kg-day	5.00E-04	mg/kg-day	3.91E-06
				Indeno(1,2,3-cd)pyrene	3.38E-01	mg/kg	3.31E-07	mg/kg-day	--	--	--
				Iron	2.04E+04	mg/kg	2.00E-02	mg/kg-day	3.00E-01	mg/kg-day	6.66E-02
				Lead	3.69E+02	mg/kg	3.61E-04	mg/kg-day	--	--	--
				Manganese	3.75E+02	mg/kg	3.67E-04	mg/kg-day	2.40E-02	mg/kg-day	1.53E-02
				Mercury	6.77E-01	mg/kg	6.62E-07	mg/kg-day	3.00E-04	mg/kg-day	2.21E-03
				Naphthalene	5.14E-02	mg/kg	5.03E-08	mg/kg-day	2.00E-02	mg/kg-day	2.51E-06
				Nickel	2.90E+01	mg/kg	2.84E-05	mg/kg-day	2.00E-02	mg/kg-day	1.42E-03
				n-Nitroso-diphenylamine	2.70E-02	mg/kg	2.64E-08	mg/kg-day	2.00E-02	mg/kg-day	1.32E-06
				Phenanthrene	1.76E+00	mg/kg	1.72E-06	mg/kg-day	3.00E-01	mg/kg-day	5.74E-06
				Pyrene	1.90E+00	mg/kg	1.86E-06	mg/kg-day	3.00E-02	mg/kg-day	6.20E-05
				Silver	4.50E-01	mg/kg	4.40E-07	mg/kg-day	5.00E-03	mg/kg-day	8.81E-05

TABLE F-7.1.1.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
CURRENT INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Current
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Ingestion (continued)	Thallium	4.60E+00	mg/kg	4.50E-06	mg/kg-day	6.60E-05	mg/kg-day	6.82E-02
				Titanium	4.00E+02	mg/kg	3.91E-04	mg/kg-day	4.00E+00	mg/kg-day	9.78E-05
				Vanadium	3.19E+01	mg/kg	3.13E-05	mg/kg-day	7.00E-03	mg/kg-day	4.47E-03
				Zinc	2.14E+02	mg/kg	2.10E-04	mg/kg-day	3.00E-01	mg/kg-day	6.99E-04
			Exposure Route Total								**2.98E-01**
			Dermal	2-Methylnaphthalene	2.85E-02	mg/kg	1.8E-09	mg/kg-day	4.00E-03	mg/kg-day	4.60E-07
				4,4'-DDT	9.65E-03	mg/kg	1.9E-09	mg/kg-day	5.00E-04	mg/kg-day	3.74E-06
				Acenaphthene	1.46E-01	mg/kg	1.2E-07	mg/kg-day	6.00E-02	mg/kg-day	2.04E-06
				Acenaphthylene	1.56E-02	mg/kg	1.0E-09	mg/kg-day	6.00E-02	mg/kg-day	1.68E-08
				Acetone	1.40E-01	mg/kg	9.0E-09	mg/kg-day	9.00E-01	mg/kg-day	1.00E-08
				alpha-Chlordane	1.90E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Aluminum	9.36E+03	mg/kg	6.0E-05	mg/kg-day	1.00E+00	mg/kg-day	6.04E-05
				Anthracene	4.19E-01	mg/kg	3.5E-07	mg/kg-day	3.00E-01	mg/kg-day	1.17E-06
				Aroclor-1260	2.01E+00	mg/kg	1.8E-06	mg/kg-day	2.00E-05	mg/kg-day	9.07E-02
				Arsenic	7.86E+00	mg/kg	1.5E-06	mg/kg-day	3.00E-04	mg/kg-day	5.07E-03
				Barium	1.09E+02	mg/kg	7.1E-07	mg/kg-day	4.90E-03	mg/kg-day	1.44E-04
				Benzo(a)anthracene	1.05E+00	mg/kg	8.8E-07	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.58E-01	mg/kg	7.2E-07	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.81E-01	mg/kg	1.5E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.86E-01	mg/kg	1.6E-07	mg/kg-day	3.00E-02	mg/kg-day	5.21E-06
				Benzo(k)fluoranthene	5.78E-01	mg/kg	4.9E-07	mg/kg-day	--	--	--
				Beryllium	1.07E+00	mg/kg	6.9E-09	mg/kg-day	1.40E-05	mg/kg-day	4.96E-04
				Cadmium	8.26E-01	mg/kg	5.3E-09	mg/kg-day	5.00E-04	mg/kg-day	1.07E-05
				Carbazole	1.60E-01	mg/kg	1.0E-08	mg/kg-day	--	--	--
				Chlordane	1.49E-01	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Chromium	3.18E+01	mg/kg	2.1E-07	mg/kg-day	1.50E+00	mg/kg-day	1.37E-07
				Chrysene	2.08E-01	mg/kg	1.7E-07	mg/kg-day	--	--	--
				Cobalt	7.26E+00	mg/kg	4.7E-08	mg/kg-day	2.00E-02	mg/kg-day	2.34E-06
				Copper	3.71E+01	mg/kg	2.4E-07	mg/kg-day	4.00E-02	mg/kg-day	5.98E-06
				Dibenzo(a,h)anthracene	7.09E-02	mg/kg	6.0E-08	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	7.7E-08	mg/kg-day	2.00E-03	mg/kg-day	3.87E-05
				Diethylphthalate	2.20E-02	mg/kg	1.4E-09	mg/kg-day	8.00E-01	mg/kg-day	1.78E-09
				di-n-Butylphthalate	1.30E-01	mg/kg	8.4E-09	mg/kg-day	1.00E+01	mg/kg-day	8.40E-10
				Fluoranthene	4.21E+00	mg/kg	3.5E-06	mg/kg-day	4.00E-02	mg/kg-day	8.83E-05
				Fluorene	2.16E-01	mg/kg	1.8E-07	mg/kg-day	4.00E-02	mg/kg-day	4.54E-06
				gamma-Chlordane	2.00E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Indeno(1,2,3-cd)pyrene	3.38E-01	mg/kg	2.8E-07	mg/kg-day	--	--	--
				Iron	2.04E+04	mg/kg	1.3E-04	mg/kg-day	3.00E-01	mg/kg-day	4.40E-04
				Lead	3.69E+02	mg/kg	2.4E-06	mg/kg-day	--	--	--
				Manganese	3.75E+02	mg/kg	2.4E-06	mg/kg-day	2.40E-02	mg/kg-day	1.01E-04
				Mercury	6.77E-01	mg/kg	--	mg/kg-day	2.10E-05	mg/kg-day	--
				Naphthalene	5.14E-02	mg/kg	4.3E-08	mg/kg-day	2.00E-02	mg/kg-day	2.16E-06

TABLE F-7.1.1.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
CURRENT INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Current
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Nickel	2.90E+01	mg/kg	1.9E-07	mg/kg-day	8.00E-04	mg/kg-day	2.34E-04
				n-Nitroso-diphenylamine	2.70E-02	mg/kg	1.7E-09	mg/kg-day	2.00E-02	mg/kg-day	8.72E-08
				Phenanthrene	1.76E+00	mg/kg	1.1E-07	mg/kg-day	3.00E-01	mg/kg-day	3.79E-07
				Pyrene	1.90E+00	mg/kg	1.6E-06	mg/kg-day	3.00E-02	mg/kg-day	5.32E-05
				Silver	4.50E-01	mg/kg	2.9E-09	mg/kg-day	2.00E-04	mg/kg-day	1.45E-05
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.00E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Vanadium	3.19E+01	mg/kg	2.1E-07	mg/kg-day	1.82E-04	mg/kg-day	1.13E-03
				Zinc	2.14E+02	mg/kg	1.4E-06	mg/kg-day	3.00E-01	mg/kg-day	4.61E-06
			Exposure Route Total								**9.87E-02**
		Exposure Point Total									**3.97E-01**
	Exposure Medium Total										**3.97E-01**
	Air	Outdoor Air	Inhalation (particulates or VOCs)	2-Methylnaphthalene	2.01E-07	mg/m^3	3.9E-08	mg/kg-day	--	--	--
				4,4'-DDT	7.31E-12	mg/m^3	1.4E-12	mg/kg-day	5.00E-04	mg/kg-day	2.86E-09
				Acenaphthene	8.10E-07	mg/m^3	1.6E-07	mg/kg-day	6.00E-02	mg/kg-day	2.64E-06
				Acenaphthylene	8.66E-08	mg/m^3	1.7E-08	mg/kg-day	6.00E-02	mg/kg-day	2.82E-07
				Acetone	1.11E-05	mg/m^3	2.2E-06	mg/kg-day	9.00E-01	mg/kg-day	2.42E-06
				alpha-Chlordane	1.44E-12	mg/m^3	2.8E-13	mg/kg-day	2.00E-04	mg/kg-day	1.41E-09
				Aluminum	7.09E-06	mg/m^3	1.4E-06	mg/kg-day	1.43E-03	mg/kg-day	9.70E-04
				Anthracene	5.98E-07	mg/m^3	1.2E-07	mg/kg-day	3.00E-01	mg/kg-day	3.90E-07
				Aroclor-1260	1.52E-09	mg/m^3	3.0E-10	mg/kg-day	2.00E-05	mg/kg-day	1.49E-05
				Arsenic	5.95E-09	mg/m^3	1.2E-09	mg/kg-day	--	mg/kg-day	--
				Barium	8.29E-08	mg/m^3	1.6E-08	mg/kg-day	1.40E-04	mg/kg-day	1.16E-04
				Benzo(a)anthracene	7.98E-10	mg/m^3	1.6E-10	mg/kg-day	--	--	--
				Benzo(a)pyrene	6.50E-10	mg/m^3	1.3E-10	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.37E-10	mg/m^3	2.7E-11	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.41E-10	mg/m^3	2.8E-11	mg/kg-day	3.00E-02	mg/kg-day	9.20E-10
				Benzo(k)fluoranthene	4.38E-10	mg/m^3	8.6E-11	mg/kg-day	--	--	--
				Beryllium	8.14E-10	mg/m^3	1.6E-10	mg/kg-day	5.71E-06	mg/kg-day	2.79E-05
				Cadmium	6.25E-10	mg/m^3	1.2E-10	mg/kg-day	--	mg/kg-day	--
				Carbazole	1.21E-10	mg/m^3	2.4E-11	mg/kg-day	--	--	--
				Chlordane	1.13E-10	mg/m^3	2.2E-11	mg/kg-day	2.00E-04	mg/kg-day	1.10E-07
				Chromium	2.41E-08	mg/m^3	4.7E-09	mg/kg-day	--	--	--
				Chrysene	1.57E-10	mg/m^3	3.1E-11	mg/kg-day	--	--	--
				Cobalt	5.50E-09	mg/m^3	1.1E-09	mg/kg-day	5.71E-06	mg/kg-day	1.88E-04
				Copper	2.81E-08	mg/m^3	5.5E-09	mg/kg-day	--	--	--
				Dibenzo(a,h)anthracene	5.37E-11	mg/m^3	1.1E-11	mg/kg-day	--	--	--
				Dibenzofuran	1.85E-06	mg/m^3	3.6E-07	mg/kg-day	2.00E-03	mg/kg-day	1.81E-04
				Diethylphthalate	1.67E-11	mg/m^3	3.3E-12	mg/kg-day	8.00E-01	mg/kg-day	4.08E-12

TABLE F-7.1.1.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
CURRENT INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Current
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Air (continued)	Outdoor Air (continued)	Inhalation (particulates or VOCs) (continued)	di-n-Butylphthalate	9.85E-11	mg/m^3	1.9E-11	mg/kg-day	--	--	--
				Fluoranthene	3.19E-09	mg/m^3	6.2E-10	mg/kg-day	4.00E-02	mg/kg-day	1.56E-08
				Fluorene	6.01E-07	mg/m^3	1.2E-07	mg/kg-day	4.00E-02	mg/kg-day	2.94E-06
				gamma-Chlordane	1.52E-12	mg/m^3	3.0E-13	mg/kg-day	2.00E-04	mg/kg-day	1.48E-09
				Indeno(1,2,3-cd)pyrene	2.56E-10	mg/m^3	5.0E-11	mg/kg-day	--	--	--
				Iron	1.55E-05	mg/m^3	3.0E-06	mg/kg-day	--	--	--
				Lead	2.80E-07	mg/m^3	5.5E-08	mg/kg-day	--	--	--
				Manganese	2.84E-07	mg/m^3	5.6E-08	mg/kg-day	1.43E-05	mg/kg-day	3.89E-03
				Mercury	5.13E-10	mg/m^3	1.0E-10	mg/kg-day	--	mg/kg-day	--
				Naphthalene	1.19E-06	mg/m^3	2.3E-07	mg/kg-day	8.57E-04	mg/kg-day	2.73E-04
				Nickel	2.20E-08	mg/m^3	4.3E-09	mg/kg-day	5.71E-05	mg/kg-day	7.53E-05
				n-Nitroso-diphenylamine	2.05E-11	mg/m^3	4.0E-12	mg/kg-day	2.00E-02	mg/kg-day	2.00E-10
				Phenanthrene	1.18E-06	mg/m^3	2.3E-07	mg/kg-day	3.00E-01	mg/kg-day	7.67E-07
				Pyrene	5.00E-07	mg/m^3	9.8E-08	mg/kg-day	3.00E-02	mg/kg-day	3.26E-06
				Silver	3.41E-10	mg/m^3	6.7E-11	mg/kg-day	--	--	--
				Thallium	3.48E-09	mg/m^3	6.8E-10	mg/kg-day	--	--	--
				Titanium	3.03E-07	mg/m^3	5.9E-08	mg/kg-day	8.60E-03	mg/kg-day	6.90E-06
				Vanadium	2.42E-08	mg/m^3	4.7E-09	mg/kg-day	--	--	--
				Zinc	1.62E-07	mg/m^3	3.2E-08	mg/kg-day	--	mg/kg-day	--
			Exposure Route Total								**5.76E-03**
		Exposure Point Total									**5.76E-03**
	Exposure Medium Total										**5.76E-03**
Medium Total											**4.03E-01**
Groundwater	Groundwater	Indoor Air	Inhalation (Vapor Intrusion)	1,1,1-Trichloroethane	2.01E-04	mg/m^3	3.94E-05	mg/kg-day	6.30E-01	mg/kg-day	6.26E-05
				1,1,2-Trichloroethane	4.59E-06	mg/m^3	8.97E-07	mg/kg-day	4.00E-03	mg/kg-day	2.24E-04
				1,1-Dichlorethane	3.16E-04	mg/m^3	6.19E-05	mg/kg-day	1.40E-01	mg/kg-day	4.42E-04
				1,1-Dichlorethene	9.92E-03	mg/m^3	1.94E-03	mg/kg-day	5.71E-02	mg/kg-day	3.40E-02
				1,2,4-Trimethylbenzene	2.33E-05	mg/m^3	4.57E-06	mg/kg-day	1.70E-03	mg/kg-day	2.69E-03
				1,2-Dichlorobenzene	9.49E-06	mg/m^3	1.86E-06	mg/kg-day	5.70E-02	mg/kg-day	3.26E-05
				1,2-Dichlorethane	7.70E-06	mg/m^3	1.51E-06	mg/kg-day	6.86E-01	mg/kg-day	2.20E-06
				1,2-Dichlorethene (Total)	6.08E-04	mg/m^3	1.19E-04	mg/kg-day	1.00E-02	mg/kg-day	1.19E-02
				1,2-Dichloropropane	1.41E-07	mg/m^3	2.75E-08	mg/kg-day	1.10E-03	mg/kg-day	2.50E-05
				1,3,5-Trimethylbenzene	2.08E-05	mg/m^3	4.08E-06	mg/kg-day	1.70E-03	mg/kg-day	2.40E-03
				1,3-Dichlorobenzene	5.39E-06	mg/m^3	1.05E-06	mg/kg-day	3.00E-02	mg/kg-day	3.51E-05
				1,4-Dichlorobenzene	5.92E-06	mg/m^3	1.16E-06	mg/kg-day	2.29E-01	mg/kg-day	5.07E-06
				2-Butanone	2.35E-06	mg/m^3	4.60E-07	mg/kg-day	1.43E+00	mg/kg-day	3.22E-07
				2-Hexanone	1.31E-07	mg/m^3	2.57E-08	mg/kg-day	8.60E-01	mg/kg-day	2.99E-08
				2-MethylNaphthalene	8.28E-08	mg/m^3	1.62E-08	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	1.90E-06	mg/m^3	3.72E-07	mg/kg-day	8.60E-01	mg/kg-day	4.33E-07
				Acenaphthene	6.52E-08	mg/m^3	1.28E-08	mg/kg-day	6.00E-02	mg/kg-day	2.13E-07
				Acenaphthylene	6.52E-08	mg/m^3	1.28E-08	mg/kg-day	6.00E-02	mg/kg-day	2.13E-07

TABLE F-7.1.1.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
CURRENT INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Current
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Indoor Air (continued)	Inhalation (Vapor Intrusion) (continued)	Acetone	5.45E-05	mg/m^3	1.07E-05	mg/kg-day	9.00E-01	mg/kg-day	1.18E-05
				Benzene	5.01E-05	mg/m^3	9.80E-06	mg/kg-day	8.57E-03	mg/kg-day	1.14E-03
				Bromodichloromethane	2.55E-06	mg/m^3	5.00E-07	mg/kg-day	2.00E-02	mg/kg-day	2.50E-05
				Carbon disulfide	1.61E-04	mg/m^3	3.15E-05	mg/kg-day	2.00E-01	mg/kg-day	1.57E-04
				Chlorobenzene	9.89E-06	mg/m^3	1.94E-06	mg/kg-day	1.71E-02	mg/kg-day	1.13E-04
				Chloroethane	1.47E-04	mg/m^3	2.87E-05	mg/kg-day	2.90E+00	mg/kg-day	9.91E-06
				Chloroform	1.82E-05	mg/m^3	3.57E-06	mg/kg-day	1.40E-04	mg/kg-day	2.55E-02
				Chloromethane	5.88E-05	mg/m^3	1.15E-05	mg/kg-day	2.57E-02	mg/kg-day	4.47E-04
				cis-1,2-Dichloroethene	1.15E-04	mg/m^3	2.25E-05	mg/kg-day	1.00E-02	mg/kg-day	2.25E-03
				Cyanide	9.60E-06	mg/m^3	1.88E-06	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	2.48E-05	mg/m^3	4.86E-06	mg/kg-day	2.86E-01	mg/kg-day	1.70E-05
				Fluorene	1.34E-08	mg/m^3	2.62E-09	mg/kg-day	4.00E-02	mg/kg-day	6.56E-08
				Hexachlorobutadiene	9.57E-07	mg/m^3	1.87E-07	mg/kg-day	3.00E-04	mg/kg-day	6.24E-04
				Isopropylbenzene	2.12E-03	mg/m^3	4.15E-04	mg/kg-day	1.10E-01	mg/kg-day	3.78E-03
				m,p-Xylene	4.52E-05	mg/m^3	8.84E-06	mg/kg-day	2.86E-02	mg/kg-day	3.09E-04
				Methylene Chloride	1.47E-05	mg/m^3	2.87E-06	mg/kg-day	8.57E-01	mg/kg-day	3.35E-06
				Methyl-T-Butyl-ether	2.95E-06	mg/m^3	5.78E-07	mg/kg-day	8.57E-01	mg/kg-day	6.75E-07
				Naphthalene	5.03E-06	mg/m^3	9.84E-07	mg/kg-day	8.57E-04	mg/kg-day	1.15E-03
				n-Butylbenzene	9.94E-06	mg/m^3	1.95E-06	mg/kg-day	1.14E-02	mg/kg-day	1.70E-04
				n-propylbenzene	4.44E-05	mg/m^3	8.68E-06	mg/kg-day	4.00E-02	mg/kg-day	2.17E-04
				o-Xylene	1.73E-05	mg/m^3	3.38E-06	mg/kg-day	2.86E-02	mg/kg-day	1.18E-04
				Phenanthrene	1.75E-08	mg/m^3	3.43E-09	mg/kg-day	3.00E-01	mg/kg-day	1.14E-08
				Pyrene	6.77E-09	mg/m^3	1.32E-09	mg/kg-day	3.00E-02	mg/kg-day	4.42E-08
				sec-Butylbenzene	5.50E-09	mg/m^3	1.08E-09	mg/kg-day	1.14E-02	mg/kg-day	9.42E-08
				tert-Butylbenzene	1.30E-06	mg/m^3	2.54E-07	mg/kg-day	1.14E-02	mg/kg-day	2.22E-05
				trans-1,2-Dichloroethene	9.43E-05	mg/m^3	1.85E-05	mg/kg-day	2.00E-02	mg/kg-day	9.23E-04
				Tetrachloroethene	4.75E-05	mg/m^3	9.29E-06	mg/kg-day	1.71E-01	mg/kg-day	5.42E-05
				Toluene	2.22E-05	mg/m^3	4.34E-06	mg/kg-day	1.14E-01	mg/kg-day	3.80E-05
				Trichloroethene	5.23E-03	mg/m^3	1.02E-03	mg/kg-day	1.00E-02	mg/kg-day	1.02E-01
				Vinyl chloride	5.47E-04	mg/m^3	1.07E-04	mg/kg-day	2.86E-02	mg/kg-day	3.75E-03
				Xylene (Total)	5.96E-05	mg/m^3	1.17E-05	mg/kg-day	2.86E-02	mg/kg-day	4.09E-04
			Exposure Route Total								**1.95E-01**
		Exposure Point Total									**1.95E-01**
	Exposure Medium Total										**1.95E-01**
Medium Total											**1.95E-01**
										Total of Receptor Hazards Across All Media	**5.98E-01**

TABLE F-7.1.1.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
CURRENT INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Current
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	

Notes:

--	Not applicable or not available
EPA	U.S. Environmental Protection Agency
EPC	Exposure point concentration
ft bgs	Feet below ground surface
mg/kg	Milligram per kilogram
mg/kg-day	Milligram per kilogram per day
mg/L	Milligram per liter
mg/m^3	Milligram per cubic meter
RAGS	Risk Assessment Guidelines for Superfund
RfD	Reference dose
RfC	Reference concentration
RI	Remedial Investigation
RME	Reasonable maximum expsoure
VOC	Volatile organic compound

(a) See the Vapor Intrusion to Indoor Air Evaluation for determination of the modeled indoor air concentration.

TABLE F-7.1.2.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS
HYPOTHETICAL FUTURE CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs)	Soil	Site Soil	Ingestion	2-Methylnaphthalene	2.85E-02	mg/kg	9.20E-08	mg/kg-day	4.00E-03	mg/kg-day	2.30E-05
				4,4'-DDT	9.65E-03	mg/kg	3.11E-08	mg/kg-day	5.00E-04	mg/kg-day	6.23E-05
				Acenaphthene	1.46E-01	mg/kg	4.71E-07	mg/kg-day	6.00E-02	mg/kg-day	7.84E-06
				Acenaphthylene	1.56E-02	mg/kg	5.03E-08	mg/kg-day	6.00E-02	mg/kg-day	8.39E-07
				Acetone	1.40E-01	mg/kg	4.52E-07	mg/kg-day	9.00E-01	mg/kg-day	5.02E-07
				alpha-Chlordane	1.90E-03	mg/kg	6.14E-09	mg/kg-day	5.00E-04	mg/kg-day	1.23E-05
				Aluminum	9.36E+03	mg/kg	3.02E-02	mg/kg-day	1.00E+00	mg/kg-day	3.02E-02
				Anthracene	4.19E-01	mg/kg	1.35E-06	mg/kg-day	3.00E-01	mg/kg-day	4.51E-06
				Aroclor-1260	2.01E+00	mg/kg	6.48E-06	mg/kg-day	2.00E-05	mg/kg-day	3.24E-01
				Arsenic	7.86E+00	mg/kg	2.54E-05	mg/kg-day	3.00E-04	mg/kg-day	8.45E-02
				Barium	1.09E+02	mg/kg	3.53E-04	mg/kg-day	7.00E-02	mg/kg-day	5.05E-03
				Benzo(a)anthracene	1.05E+00	mg/kg	3.40E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.58E-01	mg/kg	2.77E-06	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.81E-01	mg/kg	5.85E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.86E-01	mg/kg	6.01E-07	mg/kg-day	3.00E-02	mg/kg-day	2.00E-05
				Benzo(k)fluoranthene	5.78E-01	mg/kg	1.87E-06	mg/kg-day	--	--	--
				Beryllium	1.07E+00	mg/kg	3.47E-06	mg/kg-day	2.00E-03	mg/kg-day	1.73E-03
				Cadmium	8.26E-01	mg/kg	2.67E-06	mg/kg-day	5.00E-04	mg/kg-day	5.33E-03
				Carbazole	1.60E-01	mg/kg	5.17E-07	mg/kg-day	--	--	--
				Chlordane	1.49E-01	mg/kg	4.81E-07	mg/kg-day	5.00E-04	mg/kg-day	9.62E-04
				Chromium	3.18E+01	mg/kg	1.03E-04	mg/kg-day	1.50E+00	mg/kg-day	6.85E-05
				Chrysene	2.08E-01	mg/kg	6.71E-07	mg/kg-day	--	--	--
				Cobalt	7.26E+00	mg/kg	2.34E-05	mg/kg-day	2.00E-02	mg/kg-day	1.17E-03
				Copper	3.71E+01	mg/kg	1.20E-04	mg/kg-day	4.00E-02	mg/kg-day	2.99E-03
				Dibenzo(a,h)anthracene	7.09E-02	mg/kg	2.29E-07	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	3.87E-06	mg/kg-day	2.00E-03	mg/kg-day	1.94E-03
				Diethylphthalate	2.20E-02	mg/kg	7.10E-08	mg/kg-day	8.00E-01	mg/kg-day	8.88E-08
				di-n-Butylphthalate	1.30E-01	mg/kg	4.20E-07	mg/kg-day	1.00E-01	mg/kg-day	4.20E-06
				Fluoranthene	4.21E+00	mg/kg	1.36E-05	mg/kg-day	4.00E-02	mg/kg-day	3.40E-04
				Fluorene	2.16E-01	mg/kg	6.98E-07	mg/kg-day	4.00E-02	mg/kg-day	1.75E-05
				gamma-Chlordane	2.00E-03	mg/kg	6.46E-09	mg/kg-day	5.00E-04	mg/kg-day	1.29E-05
				Indeno(1,2,3-cd)pyrene	3.38E-01	mg/kg	1.09E-06	mg/kg-day	--	--	--
				Iron	2.04E+04	mg/kg	6.60E-02	mg/kg-day	3.00E-01	mg/kg-day	2.20E-01
				Lead	3.69E+02	mg/kg	1.19E-03	mg/kg-day	--	--	--
				Manganese	3.75E+02	mg/kg	1.21E-03	mg/kg-day	2.40E-02	mg/kg-day	5.04E-02
				Mercury	6.77E-01	mg/kg	2.18E-06	mg/kg-day	3.00E-04	mg/kg-day	7.28E-03
				Naphthalene	5.14E-02	mg/kg	1.66E-07	mg/kg-day	2.00E-02	mg/kg-day	8.29E-06
				Nickel	2.90E+01	mg/kg	9.37E-05	mg/kg-day	2.00E-02	mg/kg-day	4.69E-03
				n-Nitroso-diphenylamine	2.70E-02	mg/kg	8.72E-08	mg/kg-day	2.00E-02	mg/kg-day	4.36E-06
				Phenanthrene	1.76E+00	mg/kg	5.68E-06	mg/kg-day	3.00E-01	mg/kg-day	1.89E-05
				Pyrene	1.90E+00	mg/kg	6.14E-06	mg/kg-day	3.00E-02	mg/kg-day	2.05E-04
				Silver	4.50E-01	mg/kg	1.45E-06	mg/kg-day	5.00E-03	mg/kg-day	2.91E-04

TABLE F-7.1.2.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Ingestion (continued)	Thallium	4.60E+00	mg/kg	1.49E-05	mg/kg-day	6.60E-05	mg/kg-day	2.25E-01
				Titanium	4.00E+02	mg/kg	1.29E-03	mg/kg-day	4.00E+00	mg/kg-day	3.23E-04
				Vanadium	3.19E+01	mg/kg	1.03E-04	mg/kg-day	7.00E-03	mg/kg-day	1.47E-02
				Zinc	2.14E+02	mg/kg	6.92E-04	mg/kg-day	3.00E-01	mg/kg-day	2.31E-03
			Exposure Route Total								**9.84E-01**
			Dermal	2-Methylnaphthalene	2.85E-02	mg/kg	2.8E-09	mg/kg-day	4.00E-03	mg/kg-day	6.90E-07
				4,4'-DDT	9.65E-03	mg/kg	2.8E-09	mg/kg-day	5.00E-04	mg/kg-day	5.61E-06
				Acenaphthene	1.46E-01	mg/kg	1.8E-07	mg/kg-day	6.00E-02	mg/kg-day	3.06E-06
				Acenaphthylene	1.56E-02	mg/kg	1.5E-09	mg/kg-day	6.00E-02	mg/kg-day	2.52E-08
				Acetone	1.40E-01	mg/kg	1.4E-08	mg/kg-day	9.00E-01	mg/kg-day	1.51E-08
				alpha-Chlordane	1.90E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Aluminum	9.36E+03	mg/kg	9.1E-05	mg/kg-day	1.00E+00	mg/kg-day	9.07E-05
				Anthracene	4.19E-01	mg/kg	5.3E-07	mg/kg-day	3.00E-01	mg/kg-day	1.76E-06
				Aroclor-1260	2.01E+00	mg/kg	2.7E-06	mg/kg-day	2.00E-05	mg/kg-day	1.36E-01
				Arsenic	7.86E+00	mg/kg	2.3E-06	mg/kg-day	3.00E-04	mg/kg-day	7.61E-03
				Barium	1.09E+02	mg/kg	1.1E-06	mg/kg-day	4.90E-03	mg/kg-day	2.16E-04
				Benzo(a)anthracene	1.05E+00	mg/kg	1.3E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.58E-01	mg/kg	1.1E-06	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.81E-01	mg/kg	2.3E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.86E-01	mg/kg	2.3E-07	mg/kg-day	3.00E-02	mg/kg-day	7.81E-06
				Benzo(k)fluoranthene	5.78E-01	mg/kg	7.3E-07	mg/kg-day	--	--	--
				Beryllium	1.07E+00	mg/kg	1.0E-08	mg/kg-day	1.40E-05	mg/kg-day	7.43E-04
				Cadmium	8.26E-01	mg/kg	8.0E-09	mg/kg-day	5.00E-04	mg/kg-day	1.60E-05
				Carbazole	1.60E-01	mg/kg	1.5E-08	mg/kg-day	--	--	--
				Chlordane	1.49E-01	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Chromium	3.18E+01	mg/kg	3.1E-07	mg/kg-day	1.50E+00	mg/kg-day	2.05E-07
				Chrysene	2.08E-01	mg/kg	2.6E-07	mg/kg-day	--	--	--
				Cobalt	7.26E+00	mg/kg	7.0E-08	mg/kg-day	2.00E-02	mg/kg-day	3.52E-06
				Copper	3.71E+01	mg/kg	3.6E-07	mg/kg-day	4.00E-02	mg/kg-day	8.98E-06
				Dibenzo(a,h)anthracene	7.09E-02	mg/kg	8.9E-08	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	1.2E-07	mg/kg-day	2.00E-03	mg/kg-day	5.81E-05
				Diethylphthalate	2.20E-02	mg/kg	2.1E-09	mg/kg-day	8.00E-01	mg/kg-day	2.66E-09
				di-n-Butylphthalate	1.30E-01	mg/kg	1.3E-08	mg/kg-day	1.00E+01	mg/kg-day	1.26E-09
				Fluoranthene	4.21E+00	mg/kg	5.3E-06	mg/kg-day	4.00E-02	mg/kg-day	1.32E-04
				Fluorene	2.16E-01	mg/kg	2.7E-07	mg/kg-day	4.00E-02	mg/kg-day	6.81E-06
				gamma-Chlordane	2.00E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Indeno(1,2,3-cd)pyrene	3.38E-01	mg/kg	4.3E-07	mg/kg-day	--	--	--
				Iron	2.04E+04	mg/kg	2.0E-04	mg/kg-day	3.00E-01	mg/kg-day	6.60E-04
				Lead	3.69E+02	mg/kg	3.6E-06	mg/kg-day	--	--	--
				Manganese	3.75E+02	mg/kg	3.6E-06	mg/kg-day	2.40E-02	mg/kg-day	1.51E-04
				Mercury	6.77E-01	mg/kg	--	mg/kg-day	2.10E-05	mg/kg-day	--
				Naphthalene	5.14E-02	mg/kg	6.5E-08	mg/kg-day	2.00E-02	mg/kg-day	2.23E-06

TABLE F-7.1.2.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Nickel	2.90E+01	mg/kg	2.8E-07	mg/kg-day	8.00E-04	mg/kg-day	3.52E-04
				n-Nitroso-diphenylamine	2.70E-02	mg/kg	2.6E-09	mg/kg-day	2.00E-02	mg/kg-day	1.31E-07
				Phenanthrene	1.76E+00	mg/kg	1.7E-07	mg/kg-day	3.00E-01	mg/kg-day	5.68E-07
				Pyrene	1.90E+00	mg/kg	2.4E-06	mg/kg-day	3.00E-02	mg/kg-day	7.98E-05
				Silver	4.50E-01	mg/kg	4.4E-09	mg/kg-day	2.00E-04	mg/kg-day	2.18E-05
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.00E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Vanadium	3.19E+01	mg/kg	3.1E-07	mg/kg-day	1.82E-04	mg/kg-day	1.70E-03
				Zinc	2.14E+02	mg/kg	2.1E-06	mg/kg-day	3.00E-01	mg/kg-day	6.92E-06
			Exposure Route Total								**1.48E-01**
		Exposure Point Total									**1.13E+00**
	Exposure Medium Total										**1.13E+00**
	Air	Outdoor Air	Inhalation (particulates or VOCs)	2-Methylnaphthalene	2.01E-07	mg/m^3	3.9E-08	mg/kg-day	--	--	--
				4,4'-DDT	7.31E-12	mg/m^3	1.4E-12	mg/kg-day	5.00E-04	mg/kg-day	2.86E-09
				Acenaphthene	8.10E-07	mg/m^3	1.6E-07	mg/kg-day	6.00E-02	mg/kg-day	2.64E-06
				Acenaphthylene	8.66E-08	mg/m^3	1.7E-08	mg/kg-day	6.00E-02	mg/kg-day	2.82E-07
				Acetone	1.11E-05	mg/m^3	2.2E-06	mg/kg-day	9.00E-01	mg/kg-day	2.42E-06
				alpha-Chlordane	1.44E-12	mg/m^3	2.8E-13	mg/kg-day	2.00E-04	mg/kg-day	1.41E-09
				Aluminum	7.09E-06	mg/m^3	1.4E-06	mg/kg-day	1.43E-03	mg/kg-day	9.70E-04
				Anthracene	5.98E-07	mg/m^3	1.2E-07	mg/kg-day	3.00E-01	mg/kg-day	3.90E-07
				Aroclor-1260	1.52E-09	mg/m^3	3.0E-10	mg/kg-day	2.00E-05	mg/kg-day	1.49E-05
				Arsenic	5.95E-09	mg/m^3	1.2E-09	mg/kg-day	--	mg/kg-day	--
				Barium	8.29E-08	mg/m^3	1.6E-08	mg/kg-day	1.40E-04	mg/kg-day	1.16E-04
				Benzo(a)anthracene	7.98E-10	mg/m^3	1.6E-10	mg/kg-day	--	--	--
				Benzo(a)pyrene	6.50E-10	mg/m^3	1.3E-10	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.37E-10	mg/m^3	2.7E-11	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.41E-10	mg/m^3	2.8E-11	mg/kg-day	3.00E-02	mg/kg-day	9.20E-10
				Benzo(k)fluoranthene	4.38E-10	mg/m^3	8.6E-11	mg/kg-day	--	--	--
				Beryllium	8.14E-10	mg/m^3	1.6E-10	mg/kg-day	5.71E-06	mg/kg-day	2.79E-05
				Cadmium	6.25E-10	mg/m^3	1.2E-10	mg/kg-day	--	mg/kg-day	--
				Carbazole	1.21E-10	mg/m^3	2.4E-11	mg/kg-day	--	--	--
				Chlordane	1.13E-10	mg/m^3	2.2E-11	mg/kg-day	2.00E-04	mg/kg-day	1.10E-07
				Chromium	2.41E-08	mg/m^3	4.7E-09	mg/kg-day	--	--	--
				Chrysene	1.57E-10	mg/m^3	3.1E-11	mg/kg-day	--	--	--
				Cobalt	5.50E-09	mg/m^3	1.1E-09	mg/kg-day	5.71E-06	mg/kg-day	1.88E-04
				Copper	2.81E-08	mg/m^3	5.5E-09	mg/kg-day	--	--	--
				Dibenzo(a,h)anthracene	5.37E-11	mg/m^3	1.1E-11	mg/kg-day	--	--	--
				Dibenzofuran	1.85E-06	mg/m^3	3.6E-07	mg/kg-day	2.00E-03	mg/kg-day	1.81E-04
				Diethylphthalate	1.67E-11	mg/m^3	3.3E-12	mg/kg-day	8.00E-01	mg/kg-day	4.08E-12
				di-n-Butylphthalate	9.85E-11	mg/m^3	1.9E-11	mg/kg-day	--	--	--
				Fluoranthene	3.19E-09	mg/m^3	6.2E-10	mg/kg-day	4.00E-02	mg/kg-day	1.56E-08
				Fluorene	6.01E-07	mg/m^3	1.2E-07	mg/kg-day	4.00E-02	mg/kg-day	2.94E-06

TABLE F-7.1.2.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Air (continued)	Outdoor Air (continued)	Inhalation (particulates or VOCs) (continued)	gamma-Chlordane	1.52E-12	mg/m^3	3.0E-13	mg/kg-day	2.00E-04	mg/kg-day	1.48E-09
				Indeno(1,2,3-cd)pyrene	2.56E-10	mg/m^3	5.0E-11	mg/kg-day	--	--	--
				Iron	1.55E-05	mg/m^3	3.0E-06	mg/kg-day	--	--	--
				Lead	2.80E-07	mg/m^3	5.5E-08	mg/kg-day	--	--	--
				Manganese	2.84E-07	mg/m^3	5.6E-08	mg/kg-day	1.43E-05	mg/kg-day	3.89E-03
				Mercury	5.13E-10	mg/m^3	1.0E-10	mg/kg-day	--	mg/kg-day	--
				Naphthalene	1.19E-06	mg/m^3	2.3E-07	mg/kg-day	8.57E-04	mg/kg-day	2.73E-04
				Nickel	2.20E-08	mg/m^3	4.3E-09	mg/kg-day	5.71E-05	mg/kg-day	7.53E-05
				n-Nitroso-diphenylamine	2.05E-11	mg/m^3	4.0E-12	mg/kg-day	2.00E-02	mg/kg-day	2.00E-10
				Phenanthrene	1.18E-06	mg/m^3	2.3E-07	mg/kg-day	3.00E-01	mg/kg-day	7.67E-07
				Pyrene	5.00E-07	mg/m^3	9.8E-08	mg/kg-day	3.00E-02	mg/kg-day	3.26E-06
				Silver	3.41E-10	mg/m^3	6.7E-11	mg/kg-day	--	--	--
				Thallium	3.48E-09	mg/m^3	6.8E-10	mg/kg-day	--	--	--
				Titanium	3.03E-07	mg/m^3	5.9E-08	mg/kg-day	8.60E-03	mg/kg-day	6.90E-06
				Vanadium	2.42E-08	mg/m^3	4.7E-09	mg/kg-day	--	--	--
				Zinc	1.62E-07	mg/m^3	3.2E-08	mg/kg-day	--	mg/kg-day	--
			Exposure Route Total								**5.76E-03**
		Exposure Point Total									**5.76E-03**
	Exposure Medium Total										**5.76E-03**
Medium Total											**1.14E+00**
Groundwater	Groundwater	Indoor Air	Inhalation (Vapor Intrusion)	1,1,1-Trichloroethane	2.29E-04	mg/m^3	4.49E-05	mg/kg-day	6.30E-01	mg/kg-day	7.12E-05
				1,1,2-Trichloroethane	5.81E-06	mg/m^3	1.14E-06	mg/kg-day	4.00E-03	mg/kg-day	2.84E-04
				1,1-Dichlorethane	3.45E-04	mg/m^3	6.76E-05	mg/kg-day	1.40E-01	mg/kg-day	4.83E-04
				1,1-Dichlorethene	1.06E-02	mg/m^3	2.07E-03	mg/kg-day	5.71E-02	mg/kg-day	3.63E-02
				1,2,4-Trimethylbenzene	--	mg/m^3	--	mg/kg-day	1.70E-03	mg/kg-day	--
				1,2-Dichlorobenzene	1.35E-05	mg/m^3	2.64E-06	mg/kg-day	5.70E-02	mg/kg-day	4.63E-05
				1,2-Dichlorethane	9.78E-06	mg/m^3	1.91E-06	mg/kg-day	6.86E-01	mg/kg-day	2.79E-06
				1,2-Dichlorethene (Total)	2.96E-04	mg/m^3	5.79E-05	mg/kg-day	1.00E-02	mg/kg-day	5.79E-03
				1,2-Dichloropropane	1.68E-07	mg/m^3	3.29E-08	mg/kg-day	1.10E-03	mg/kg-day	2.99E-05
				1,3,5-Trimethylbenzene	--	mg/m^3	--	mg/kg-day	1.70E-03	mg/kg-day	--
				1,3-Dichlorobenzene	5.79E-06	mg/m^3	1.13E-06	mg/kg-day	3.00E-02	mg/kg-day	3.78E-05
				1,4-Dichlorobenzene	8.27E-01	mg/m^3	1.62E-01	mg/kg-day	2.29E-01	mg/kg-day	7.08E-01
				2-Butanone	--	mg/m^3	--	mg/kg-day	1.43E+00	mg/kg-day	--
				2-Hexanone	--	mg/m^3	--	mg/kg-day	8.60E-01	mg/kg-day	--
				2-MethylNaphthalene	1.55E-07	mg/m^3	3.04E-08	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	--	mg/m^3	--	mg/kg-day	8.60E-01	mg/kg-day	--
				Acenaphthene	1.07E-07	mg/m^3	2.09E-08	mg/kg-day	6.00E-02	mg/kg-day	3.49E-07
				Acenaphthylene	--	mg/m^3	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Acetone	6.83E-05	mg/m^3	1.34E-05	mg/kg-day	9.00E-01	mg/kg-day	1.49E-05
				Benzene	5.97E-05	mg/m^3	1.17E-05	mg/kg-day	8.57E-03	mg/kg-day	1.36E-03
				Bromodichloromethane	2.63E-06	mg/m^3	5.15E-07	mg/kg-day	2.00E-02	mg/kg-day	2.57E-05
				Carbon disulfide	1.81E-04	mg/m^3	3.54E-05	mg/kg-day	2.00E-01	mg/kg-day	1.77E-04

TABLE F-7.1.2.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Indoor Air (continued)	Inhalation (Vapor Intrusion) (continued)	Chlorobenzene	1.26E-05	mg/m^3	2.47E-06	mg/kg-day	1.71E-02	mg/kg-day	1.44E-04
				Chloroethane	--	mg/m^3	--	mg/kg-day	2.90E+00	mg/kg-day	--
				Chloroform	2.17E-05	mg/m^3	4.25E-06	mg/kg-day	1.40E-04	mg/kg-day	3.03E-02
				Chloromethane	--	mg/m^3	--	mg/kg-day	2.57E-02	mg/kg-day	--
				cis-1,2-Dichloroethene	1.28E-04	mg/m^3	2.50E-05	mg/kg-day	1.00E-02	mg/kg-day	2.50E-03
				Cyanide	--	mg/m^3	--	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	3.25E-05	mg/m^3	6.36E-06	mg/kg-day	2.86E-01	mg/kg-day	2.23E-05
				Fluorene	2.06E-08	mg/m^3	4.03E-09	mg/kg-day	4.00E-02	mg/kg-day	1.01E-07
				Hexachlorobutadiene	1.40E-06	mg/m^3	2.74E-07	mg/kg-day	3.00E-04	mg/kg-day	9.13E-04
				Isopropylbenzene	2.49E-05	mg/m^3	4.88E-06	mg/kg-day	1.10E-01	mg/kg-day	4.43E-05
				m,p-Xylene	5.98E-05	mg/m^3	1.17E-05	mg/kg-day	2.86E-02	mg/kg-day	4.10E-04
				Methylene Chloride	1.68E-05	mg/m^3	3.29E-06	mg/kg-day	8.57E-01	mg/kg-day	3.84E-06
				Methyl-T-Butyl-ether	--	mg/m^3	--	mg/kg-day	8.57E-01	mg/kg-day	--
				Naphthalene	7.42E-06	mg/m^3	1.45E-06	mg/kg-day	8.57E-04	mg/kg-day	1.69E-03
				n-Butylbenzene	1.09E-05	mg/m^3	2.13E-06	mg/kg-day	1.14E-02	mg/kg-day	1.86E-04
				n-propylbenzene	5.54E-05	mg/m^3	1.08E-05	mg/kg-day	4.00E-02	mg/kg-day	2.71E-04
				o-Xylene	2.38E-05	mg/m^3	4.66E-06	mg/kg-day	2.86E-02	mg/kg-day	1.63E-04
				Phenanthrene	4.07E-08	mg/m^3	7.97E-09	mg/kg-day	3.00E-01	mg/kg-day	2.66E-08
				Pyrene	1.11E-08	mg/m^3	2.17E-09	mg/kg-day	3.00E-02	mg/kg-day	7.24E-08
				sec-Butylbenzene	2.26E-06	mg/m^3	4.43E-07	mg/kg-day	1.14E-02	mg/kg-day	3.88E-05
				tert-Butylbenzene	1.36E-06	mg/m^3	2.66E-07	mg/kg-day	1.14E-02	mg/kg-day	2.33E-05
				trans-1,2-Dichloroethene	1.18E-04	mg/m^3	2.30E-05	mg/kg-day	2.00E-02	mg/kg-day	1.15E-03
				Tetrachloroethene	5.93E-05	mg/m^3	1.16E-05	mg/kg-day	1.71E-01	mg/kg-day	6.77E-05
				Toluene	2.81E-05	mg/m^3	5.50E-06	mg/kg-day	1.14E-01	mg/kg-day	4.81E-05
				Trichloroethene	6.23E-03	mg/m^3	1.22E-03	mg/kg-day	1.00E-02	mg/kg-day	1.22E-01
				Vinyl chloride	5.58E-04	mg/m^3	1.09E-04	mg/kg-day	2.86E-02	mg/kg-day	3.82E-03
				Xylene (Total)	7.89E-05	mg/m^3	1.54E-05	mg/kg-day	2.86E-02	mg/kg-day	5.40E-04
			Exposure Route Total								**9.17E-01**
		Exposure Point Total									**9.17E-01**
	Exposure Medium Total										**9.17E-01**
Medium Total											**9.17E-01**
										Total of Receptor Hazards Across All Media	**2.05E+00**

TABLE F-7.1.2.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	

Notes:

--	Not applicable or not available
EPA	U.S. Environmental Protectoin Agency
EPC	Exposure point concentration
ft bgs	Feet below ground surface
mg/kg	Milligram per kilogram
mg/kg-day	Milligram per kilogram per day
mg/L	Milligram per liter
mg/m^3	Milligram per cubic meter
RAGS	Risk Assessment Guidelines for Superfund
RfD	Reference dose
RfC	Reference concentration
RI	Remedial Investigation
RME	Reasonable maximum expsoure
VOC	Volatile organic compound

(a) See the Vapor Intrusion to Indoor Air Evaluation for determination of the modeled indoor air concentration.

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs)	Soil	Site Soil	Ingestion	2-Methylnaphthalene	2.85E-02	mg/kg	3.90E-08	mg/kg-day	4.00E-03	mg/kg-day	9.76E-06
				4,4'-DDT	9.65E-03	mg/kg	1.32E-08	mg/kg-day	5.00E-04	mg/kg-day	2.64E-05
				Acenaphthene	1.46E-01	mg/kg	2.00E-07	mg/kg-day	6.00E-02	mg/kg-day	3.33E-06
				Acenaphthylene	1.56E-02	mg/kg	2.14E-08	mg/kg-day	6.00E-02	mg/kg-day	3.56E-07
				Acetone	1.40E-01	mg/kg	1.92E-07	mg/kg-day	9.00E-01	mg/kg-day	2.13E-07
				alpha-Chlordane	1.90E-03	mg/kg	2.60E-09	mg/kg-day	5.00E-04	mg/kg-day	5.21E-06
				Aluminum	9.36E+03	mg/kg	1.28E-02	mg/kg-day	1.00E+00	mg/kg-day	1.28E-02
				Anthracene	4.19E-01	mg/kg	5.73E-07	mg/kg-day	3.00E-01	mg/kg-day	1.91E-06
				Aroclor-1260	2.01E+00	mg/kg	2.75E-06	mg/kg-day	2.00E-05	mg/kg-day	1.37E-01
				Arsenic	7.86E+00	mg/kg	1.08E-05	mg/kg-day	3.00E-04	mg/kg-day	3.59E-02
				Barium	1.09E+02	mg/kg	1.50E-04	mg/kg-day	7.00E-02	mg/kg-day	2.14E-03
				Benzo(a)anthracene	1.05E+00	mg/kg	1.44E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.58E-01	mg/kg	1.18E-06	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.81E-01	mg/kg	2.48E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.86E-01	mg/kg	2.55E-07	mg/kg-day	3.00E-02	mg/kg-day	8.50E-06
				Benzo(k)fluoranthene	5.78E-01	mg/kg	7.92E-07	mg/kg-day	--	--	--
				Beryllium	1.07E+00	mg/kg	1.47E-06	mg/kg-day	2.00E-03	mg/kg-day	7.36E-04
				Cadmium	8.26E-01	mg/kg	1.13E-06	mg/kg-day	5.00E-04	mg/kg-day	2.26E-03
				Carbazole	1.60E-01	mg/kg	2.19E-07	mg/kg-day	--	--	--
				Chlordane	1.49E-01	mg/kg	2.04E-07	mg/kg-day	5.00E-04	mg/kg-day	4.08E-04
				Chromium	3.18E+01	mg/kg	4.36E-05	mg/kg-day	1.50E+00	mg/kg-day	2.91E-05
				Chrysene	2.08E-01	mg/kg	2.85E-07	mg/kg-day	--	--	--
				Cobalt	7.26E+00	mg/kg	9.94E-06	mg/kg-day	2.00E-02	mg/kg-day	4.97E-04
				Copper	3.71E+01	mg/kg	5.08E-05	mg/kg-day	4.00E-02	mg/kg-day	1.27E-03
				Dibenzo(a,h)anthracene	7.09E-02	mg/kg	9.72E-08	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	1.64E-06	mg/kg-day	2.00E-03	mg/kg-day	8.22E-04
				Diethylphthalate	2.20E-02	mg/kg	3.01E-08	mg/kg-day	8.00E-01	mg/kg-day	3.77E-08
				di-n-Butylphthalate	1.30E-01	mg/kg	1.78E-07	mg/kg-day	1.00E-01	mg/kg-day	1.78E-06
				Fluoranthene	4.21E+00	mg/kg	5.76E-06	mg/kg-day	4.00E-02	mg/kg-day	1.44E-04
				Fluorene	2.16E-01	mg/kg	2.96E-07	mg/kg-day	4.00E-02	mg/kg-day	7.41E-06
				gamma-Chlordane	2.00E-03	mg/kg	2.74E-09	mg/kg-day	5.00E-04	mg/kg-day	5.48E-06
				Indeno(1,2,3-cd)pyrene	3.38E-01	mg/kg	4.63E-07	mg/kg-day	--	--	--
				Iron	2.04E+04	mg/kg	2.80E-02	mg/kg-day	3.00E-01	mg/kg-day	9.33E-02
				Lead	3.69E+02	mg/kg	5.06E-04	mg/kg-day	--	--	--

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Ingestion (continued)	Manganese	3.75E+02	mg/kg	5.14E-04	mg/kg-day	2.40E-02	mg/kg-day	2.14E-02
				Mercury	6.77E-01	mg/kg	9.27E-07	mg/kg-day	3.00E-04	mg/kg-day	3.09E-03
				Naphthalene	5.14E-02	mg/kg	7.04E-08	mg/kg-day	2.00E-02	mg/kg-day	3.52E-06
				Nickel	2.90E+01	mg/kg	3.98E-05	mg/kg-day	2.00E-02	mg/kg-day	1.99E-03
				n-Nitroso-diphenylamine	2.70E-02	mg/kg	3.70E-08	mg/kg-day	2.00E-02	mg/kg-day	1.85E-06
				Phenanthrene	1.76E+00	mg/kg	2.41E-06	mg/kg-day	3.00E-01	mg/kg-day	8.03E-06
				Pyrene	1.90E+00	mg/kg	2.60E-06	mg/kg-day	3.00E-02	mg/kg-day	8.68E-05
				Silver	4.50E-01	mg/kg	6.16E-07	mg/kg-day	5.00E-03	mg/kg-day	1.23E-04
				Thallium	4.60E+00	mg/kg	6.30E-06	mg/kg-day	6.60E-05	mg/kg-day	9.55E-02
				Titanium	4.00E+02	mg/kg	5.48E-04	mg/kg-day	4.00E+00	mg/kg-day	1.37E-04
				Vanadium	3.19E+01	mg/kg	4.38E-05	mg/kg-day	7.00E-03	mg/kg-day	6.25E-03
				Zinc	2.14E+02	mg/kg	2.93E-04	mg/kg-day	3.00E-01	mg/kg-day	9.78E-04
			Exposure Route Total								**4.17E-01**
			Dermal	2-Methylnaphthalene	2.85E-02	mg/kg	1.6E-09	mg/kg-day	4.00E-03	mg/kg-day	3.89E-07
				4,4'-DDT	9.65E-03	mg/kg	1.6E-09	mg/kg-day	5.00E-04	mg/kg-day	3.16E-06
				Acenaphthene	1.46E-01	mg/kg	1.0E-07	mg/kg-day	6.00E-02	mg/kg-day	1.73E-06
				Acenaphthylene	1.56E-02	mg/kg	8.5E-10	mg/kg-day	6.00E-02	mg/kg-day	1.42E-08
				Acetone	1.40E-01	mg/kg	7.7E-09	mg/kg-day	9.00E-01	mg/kg-day	8.50E-09
				alpha-Chlordane	1.90E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Aluminum	9.36E+03	mg/kg	5.1E-05	mg/kg-day	1.00E+00	mg/kg-day	5.12E-05
				Anthracene	4.19E-01	mg/kg	3.0E-07	mg/kg-day	3.00E-01	mg/kg-day	9.92E-07
				Aroclor-1260	2.01E+00	mg/kg	1.5E-06	mg/kg-day	2.00E-05	mg/kg-day	7.68E-02
				Arsenic	7.86E+00	mg/kg	1.3E-06	mg/kg-day	3.00E-04	mg/kg-day	4.29E-03
				Barium	1.09E+02	mg/kg	6.0E-07	mg/kg-day	4.90E-03	mg/kg-day	1.22E-04
				Benzo(a)anthracene	1.05E+00	mg/kg	7.5E-07	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.58E-01	mg/kg	6.1E-07	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.81E-01	mg/kg	1.3E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.86E-01	mg/kg	1.3E-07	mg/kg-day	3.00E-02	mg/kg-day	4.41E-06
				Benzo(k)fluoranthene	5.78E-01	mg/kg	4.1E-07	mg/kg-day	--	--	--
				Beryllium	1.07E+00	mg/kg	5.9E-09	mg/kg-day	1.40E-05	mg/kg-day	4.19E-04
				Cadmium	8.26E-01	mg/kg	4.5E-09	mg/kg-day	5.00E-04	mg/kg-day	9.02E-06
				Carbazole	1.60E-01	mg/kg	8.7E-09	mg/kg-day	--	--	--
				Chlordane	1.49E-01	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Chromium	3.18E+01	mg/kg	1.7E-07	mg/kg-day	1.50E+00	mg/kg-day	1.16E-07

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Chrysene	2.08E-01	mg/kg	1.5E-07	mg/kg-day	--	--	--
				Cobalt	7.26E+00	mg/kg	4.0E-08	mg/kg-day	2.00E-02	mg/kg-day	1.98E-06
				Copper	3.71E+01	mg/kg	2.0E-07	mg/kg-day	4.00E-02	mg/kg-day	5.06E-06
				Dibenzo(a,h)anthracene	7.09E-02	mg/kg	5.0E-08	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	6.6E-08	mg/kg-day	2.00E-03	mg/kg-day	3.28E-05
				Diethylphthalate	2.20E-02	mg/kg	1.2E-09	mg/kg-day	8.00E-01	mg/kg-day	1.50E-09
				di-n-Butylphthalate	1.30E-01	mg/kg	7.1E-09	mg/kg-day	1.00E+01	mg/kg-day	7.11E-10
				Fluoranthene	4.21E+00	mg/kg	3.0E-06	mg/kg-day	4.00E-02	mg/kg-day	7.47E-05
				Fluorene	2.16E-01	mg/kg	1.5E-07	mg/kg-day	4.00E-02	mg/kg-day	3.84E-06
				gamma-Chlordane	2.00E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Indeno(1,2,3-cd)pyrene	3.38E-01	mg/kg	2.4E-07	mg/kg-day	--	--	--
				Iron	2.04E+04	mg/kg	1.1E-04	mg/kg-day	3.00E-01	mg/kg-day	3.72E-04
				Lead	3.69E+02	mg/kg	2.0E-06	mg/kg-day	--	--	--
				Manganese	3.75E+02	mg/kg	2.0E-06	mg/kg-day	2.40E-02	mg/kg-day	8.54E-05
				Mercury	6.77E-01	mg/kg	--	mg/kg-day	2.10E-05	mg/kg-day	--
				Naphthalene	5.14E-02	mg/kg	3.6E-08	mg/kg-day	2.00E-02	mg/kg-day	1.82E-06
				Nickel	2.90E+01	mg/kg	1.6E-07	mg/kg-day	8.00E-04	mg/kg-day	1.98E-04
				n-Nitroso-diphenylamine	2.70E-02	mg/kg	1.5E-09	mg/kg-day	2.00E-02	mg/kg-day	7.38E-08
				Phenanthrene	1.76E+00	mg/kg	9.6E-08	mg/kg-day	3.00E-01	mg/kg-day	3.20E-07
				Pyrene	1.90E+00	mg/kg	1.4E-06	mg/kg-day	3.00E-02	mg/kg-day	4.50E-05
				Silver	4.50E-01	mg/kg	2.5E-09	mg/kg-day	2.00E-04	mg/kg-day	1.23E-05
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.00E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Vanadium	3.19E+01	mg/kg	1.7E-07	mg/kg-day	1.82E-04	mg/kg-day	9.59E-04
				Zinc	2.14E+02	mg/kg	1.2E-06	mg/kg-day	3.00E-01	mg/kg-day	3.90E-06
			Exposure Route Total								**8.35E-02**
		Exposure Point Total									**5.01E-01**
		Homegrown Produce	Ingestion	2-Methylnaphthalene	2.85E-02	mg/kg	--	mg/kg-day	4.00E-03	mg/kg-day	--
				4,4'-DDT	9.65E-03	mg/kg	4.1E-10	mg/kg-day	5.00E-04	mg/kg-day	8.30E-07
				Acenaphthene	1.46E-01	mg/kg	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Acenaphthylene	1.56E-02	mg/kg	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Acetone	1.40E-01	mg/kg	--	mg/kg-day	9.00E-01	mg/kg-day	--
				alpha-Chlordane	1.90E-03	mg/kg	3.6E-10	mg/kg-day	5.00E-04	mg/kg-day	7.27E-07
				Aluminum	9.36E+03	mg/kg	--	mg/kg-day	1.00E+00	mg/kg-day	--

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Homegrown Produce (continued)	Ingestion (continued)	Anthracene	4.19E-01	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Aroclor-1260	2.01E+00	mg/kg	1.6E-07	mg/kg-day	2.00E-05	mg/kg-day	8.08E-03
				Arsenic	7.86E+00	mg/kg	4.0E-05	mg/kg-day	3.00E-04	mg/kg-day	1.33E-01
				Barium	1.09E+02	mg/kg	--	mg/kg-day	7.00E-02	mg/kg-day	--
				Benzo(a)anthracene	1.05E+00	mg/kg	8.7E-08	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.58E-01	mg/kg	4.7E-08	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.81E-01	mg/kg	1.2E-08	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.86E-01	mg/kg	--	mg/kg-day	3.00E-02	mg/kg-day	--
				Benzo(k)fluoranthene	5.78E-01	mg/kg	3.1E-08	mg/kg-day	--	--	--
				Beryllium	1.07E+00	mg/kg	--	mg/kg-day	2.00E-03	mg/kg-day	--
				Cadmium	8.26E-01	mg/kg	5.3E-05	mg/kg-day	5.00E-04	mg/kg-day	1.06E-01
				Carbazole	1.60E-01	mg/kg	4.6E-06	mg/kg-day	--	--	--
				Chlordane	1.49E-01	mg/kg	2.8E-08	mg/kg-day	5.00E-04	mg/kg-day	5.70E-05
				Chromium	3.18E+01	mg/kg	--	mg/kg-day	1.50E+00	mg/kg-day	--
				Chrysene	2.08E-01	mg/kg	1.7E-08	mg/kg-day	--	--	--
				Cobalt	7.26E+00	mg/kg	--	mg/kg-day	2.00E-02	mg/kg-day	--
				Copper	3.71E+01	mg/kg	--	mg/kg-day	4.00E-02	mg/kg-day	--
				Dibenzo(a,h)anthracene	7.09E-02	mg/kg	2.5E-09	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	--	mg/kg-day	2.00E-03	mg/kg-day	--
				Diethylphthalate	2.20E-02	mg/kg	1.1E-06	mg/kg-day	8.00E-01	mg/kg-day	1.42E-06
				di-n-Butylphthalate	1.30E-01	mg/kg	2.1E-08	mg/kg-day	1.00E-01	mg/kg-day	2.14E-07
				Fluoranthene	4.21E+00	mg/kg	3.7E-07	mg/kg-day	4.00E-02	mg/kg-day	9.32E-06
				Fluorene	2.16E-01	mg/kg	--	mg/kg-day	4.00E-02	mg/kg-day	--
				gamma-Chlordane	2.00E-03	mg/kg	3.8E-10	mg/kg-day	5.00E-04	mg/kg-day	7.66E-07
				Indeno(1,2,3-cd)pyrene	3.38E-01	mg/kg	1.6E-08	mg/kg-day	--	--	--
				Iron	2.04E+04	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Lead	3.69E+02	mg/kg	--	mg/kg-day	--	--	--
				Manganese	3.75E+02	mg/kg	--	mg/kg-day	2.40E-02	mg/kg-day	--
				Mercury	6.77E-01	mg/kg	5.3E-06	mg/kg-day	3.00E-04	mg/kg-day	1.77E-02
				Naphthalene	5.14E-02	mg/kg	--	mg/kg-day	2.00E-02	mg/kg-day	--
				Nickel	2.90E+01	mg/kg	2.4E-04	mg/kg-day	2.00E-02	mg/kg-day	1.20E-02
				n-Nitroso-diphenylamine	2.70E-02	mg/kg	7.6E-07	mg/kg-day	2.00E-02	mg/kg-day	3.79E-05
				Phenanthrene	1.76E+00	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Pyrene	1.90E+00	mg/kg	--	mg/kg-day	3.00E-02	mg/kg-day	--

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Homegrown Produce (continued)	Ingestion (continued)	Silver	4.50E-01	mg/kg	--	mg/kg-day	5.00E-03	mg/kg-day	--
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.00E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Vanadium	3.19E+01	mg/kg	--	mg/kg-day	7.00E-03	mg/kg-day	--
				Zinc	2.14E+02	mg/kg	7.1E-03	mg/kg-day	3.00E-01	mg/kg-day	2.36E-02
			Exposure Route Total								**3.00E-01**
		Exposure Point Total									**3.00E-01**
	Exposure Medium Total										**8.01E-01**
	Air	Outdoor Air	Inhalation (particulates or VOCs)	2-Methylnaphthalene	2.01E-07	mg/m^3	5.5E-08	mg/kg-day	--	--	--
				4,4'-DDT	7.31E-12	mg/m^3	2.0E-12	mg/kg-day	5.00E-04	mg/kg-day	3.99E-09
				Acenaphthene	8.10E-07	mg/m^3	2.2E-07	mg/kg-day	6.00E-02	mg/kg-day	3.68E-06
				Acenaphthylene	8.66E-08	mg/m^3	2.4E-08	mg/kg-day	6.00E-02	mg/kg-day	3.94E-07
				Acetone	1.11E-05	mg/m^3	3.0E-06	mg/kg-day	9.00E-01	mg/kg-day	3.37E-06
				alpha-Chlordane	1.44E-12	mg/m^3	3.9E-13	mg/kg-day	2.00E-04	mg/kg-day	1.96E-09
				Aluminum	7.09E-06	mg/m^3	1.9E-06	mg/kg-day	1.43E-03	mg/kg-day	1.35E-03
				Anthracene	5.98E-07	mg/m^3	1.6E-07	mg/kg-day	3.00E-01	mg/kg-day	5.44E-07
				Aroclor-1260	1.52E-09	mg/m^3	4.1E-10	mg/kg-day	2.00E-05	mg/kg-day	2.07E-05
				Arsenic	5.95E-09	mg/m^3	1.6E-09	mg/kg-day	--	mg/kg-day	--
				Barium	8.29E-08	mg/m^3	2.3E-08	mg/kg-day	1.40E-04	mg/kg-day	1.62E-04
				Benzo(a)anthracene	7.98E-10	mg/m^3	2.2E-10	mg/kg-day	--	--	--
				Benzo(a)pyrene	6.50E-10	mg/m^3	1.8E-10	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.37E-10	mg/m^3	3.7E-11	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.41E-10	mg/m^3	3.8E-11	mg/kg-day	3.00E-02	mg/kg-day	1.28E-09
				Benzo(k)fluoranthene	4.38E-10	mg/m^3	1.2E-10	mg/kg-day	--	--	--
				Beryllium	8.14E-10	mg/m^3	2.2E-10	mg/kg-day	5.71E-06	mg/kg-day	3.89E-05
				Cadmium	6.25E-10	mg/m^3	1.7E-10	mg/kg-day	--	mg/kg-day	--
				Carbazole	1.21E-10	mg/m^3	3.3E-11	mg/kg-day	--	--	--
				Chlordane	1.13E-10	mg/m^3	3.1E-11	mg/kg-day	2.00E-04	mg/kg-day	1.54E-07
				Chromium	2.41E-08	mg/m^3	6.6E-09	mg/kg-day	--	--	--
				Chrysene	1.57E-10	mg/m^3	4.3E-11	mg/kg-day	--	--	--
				Cobalt	5.50E-09	mg/m^3	1.5E-09	mg/kg-day	5.71E-06	mg/kg-day	2.63E-04
				Copper	2.81E-08	mg/m^3	7.7E-09	mg/kg-day	--	--	--
				Dibenzo(a,h)anthracene	5.37E-11	mg/m^3	1.5E-11	mg/kg-day	--	--	--
				Dibenzofuran	1.85E-06	mg/m^3	5.0E-07	mg/kg-day	2.00E-03	mg/kg-day	2.52E-04

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Air (continued)	Outdoor Air (continued)	Inhalation (particulates or VOCs) (continued)	Diethylphthalate	1.67E-11	mg/m^3	4.5E-12	mg/kg-day	8.00E-01	mg/kg-day	5.68E-12
				di-n-Butylphthalate	9.85E-11	mg/m^3	2.7E-11	mg/kg-day	--	--	--
				Fluoranthene	3.19E-09	mg/m^3	8.7E-10	mg/kg-day	4.00E-02	mg/kg-day	2.17E-08
				Fluorene	6.01E-07	mg/m^3	1.6E-07	mg/kg-day	4.00E-02	mg/kg-day	4.10E-06
				gamma-Chlordane	1.52E-12	mg/m^3	4.1E-13	mg/kg-day	2.00E-04	mg/kg-day	2.07E-09
				Indeno(1,2,3-cd)pyrene	2.56E-10	mg/m^3	7.0E-11	mg/kg-day	--	--	--
				Iron	1.55E-05	mg/m^3	4.2E-06	mg/kg-day	--	--	--
				Lead	2.80E-07	mg/m^3	7.6E-08	mg/kg-day	--	--	--
				Manganese	2.84E-07	mg/m^3	7.8E-08	mg/kg-day	1.43E-05	mg/kg-day	5.43E-03
				Mercury	5.13E-10	mg/m^3	1.4E-10	mg/kg-day	--	mg/kg-day	--
				Naphthalene	1.19E-06	mg/m^3	3.3E-07	mg/kg-day	8.57E-04	mg/kg-day	3.80E-04
				Nickel	2.20E-08	mg/m^3	6.0E-09	mg/kg-day	5.71E-05	mg/kg-day	1.05E-04
				n-Nitroso-diphenylamine	2.05E-11	mg/m^3	5.6E-12	mg/kg-day	2.00E-02	mg/kg-day	2.79E-10
				Phenanthrene	1.18E-06	mg/m^3	3.2E-07	mg/kg-day	3.00E-01	mg/kg-day	1.07E-06
				Pyrene	5.00E-07	mg/m^3	1.4E-07	mg/kg-day	3.00E-02	mg/kg-day	4.55E-06
				Silver	3.41E-10	mg/m^3	9.3E-11	mg/kg-day	--	--	--
				Thallium	3.48E-09	mg/m^3	9.5E-10	mg/kg-day	--	--	--
				Titanium	3.03E-07	mg/m^3	8.3E-08	mg/kg-day	8.60E-03	mg/kg-day	9.62E-06
				Vanadium	2.42E-08	mg/m^3	6.6E-09	mg/kg-day	--	--	--
				Zinc	1.62E-07	mg/m^3	4.4E-08	mg/kg-day	--	mg/kg-day	--
			Exposure Route Total								**8.03E-03**
		Exposure Point Total									**8.03E-03**
	Exposure Medium Total										**8.03E-03**
Medium Total											**8.09E-01**
Groundwater	Groundwater	Domestic Use of Groundwater	Ingestion	1,1,1-Trichloroethane	2.23E-02	mg/L	6.11E-04	mg/kg-day	2.80E-01	mg/kg-day	2.18E-03
				1,1,2-Trichloroethane	1.06E-02	mg/L	2.90E-04	mg/kg-day	4.00E-03	mg/kg-day	7.24E-02
				1,1-Dichlorethane	1.08E-01	mg/L	2.96E-03	mg/kg-day	1.00E-01	mg/kg-day	2.96E-02
				1,1-Dichlorethene	5.89E-01	mg/L	1.61E-02	mg/kg-day	5.00E-02	mg/kg-day	3.23E-01
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	3.10E-04	mg/kg-day	5.00E-02	mg/kg-day	6.20E-03
				1,2-Dichlorobenzene	1.34E-02	mg/L	3.66E-04	mg/kg-day	9.00E-02	mg/kg-day	4.07E-03
				1,2-Dichlorethane	1.25E-02	mg/L	3.42E-04	mg/kg-day	2.00E-02	mg/kg-day	1.71E-02
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	8.04E-03	mg/kg-day	1.00E-02	mg/kg-day	8.04E-01
				1,2-Dichloropropane	1.00E-04	mg/L	2.74E-06	mg/kg-day	1.10E-03	mg/kg-day	2.49E-03
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	2.91E-04	mg/kg-day	5.00E-02	mg/kg-day	5.82E-03

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Ingestion (continued)	1,3-Dichlorobenzene	4.50E-03	mg/L	1.23E-04	mg/kg-day	9.00E-04	mg/kg-day	1.37E-01
				1,4-Dichlorobenzene	6.42E-03	mg/L	1.76E-04	mg/kg-day	3.00E-02	mg/kg-day	5.86E-03
				2-Butanone	7.10E-02	mg/L	1.95E-03	mg/kg-day	6.00E-01	mg/kg-day	3.24E-03
				2-Hexanone	2.00E-03	mg/L	5.48E-05	mg/kg-day	8.00E-02	mg/kg-day	6.85E-04
				2-Methylnaphthalene	7.00E-04	mg/L	1.92E-05	mg/kg-day	4.00E-03	mg/kg-day	4.79E-03
				4-Methyl-2-pentanone	2.90E-02	mg/L	7.95E-04	mg/kg-day	8.00E-02	mg/kg-day	9.93E-03
				Acenaphthene	2.00E-03	mg/L	5.48E-05	mg/kg-day	6.00E-02	mg/kg-day	9.13E-04
				Acenaphthylene	2.00E-03	mg/L	5.48E-05	mg/kg-day	6.00E-02	mg/kg-day	9.13E-04
				Acetone	1.65E+00	mg/L	4.53E-02	mg/kg-day	9.00E-01	mg/kg-day	5.03E-02
				Aluminum	9.88E-01	mg/L	2.71E-02	mg/kg-day	1.00E+00	mg/kg-day	2.71E-02
				Antimony	1.43E-02	mg/L	3.91E-04	mg/kg-day	4.00E-04	mg/kg-day	9.79E-01
				Arsenic	1.98E-02	mg/L	5.43E-04	mg/kg-day	3.00E-04	mg/kg-day	1.81E+00
				Barium	2.70E-01	mg/L	7.39E-03	mg/kg-day	7.00E-02	mg/kg-day	1.06E-01
				Benzene	1.59E-02	mg/L	4.35E-04	mg/kg-day	4.00E-03	mg/kg-day	1.09E-01
				Benzo(a)anthracene	1.00E-04	mg/L	2.74E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.00E-04	mg/L	2.74E-06	mg/kg-day	--	--	--
				Beryllium	1.41E-03	mg/L	3.87E-05	mg/kg-day	2.00E-03	mg/kg-day	1.94E-02
				bis(2-ethylhexyl)phthalate	7.09E-03	mg/L	1.94E-04	mg/kg-day	2.00E-02	mg/kg-day	9.72E-03
				Bromodichloromethane	7.10E-03	mg/L	1.95E-04	mg/kg-day	2.00E-02	mg/kg-day	9.73E-03
				Cadmium	1.60E-02	mg/L	4.39E-04	mg/kg-day	5.00E-04	mg/kg-day	8.78E-01
				Carbon disulfide	7.53E-03	mg/L	2.06E-04	mg/kg-day	1.00E-01	mg/kg-day	2.06E-03
				Chlorobenzene	6.07E-03	mg/L	1.66E-04	mg/kg-day	2.00E-02	mg/kg-day	8.32E-03
				Chloroethane	1.23E-02	mg/L	3.38E-04	mg/kg-day	4.00E-01	mg/kg-day	8.46E-04
				Chloroform	7.44E-03	mg/L	2.04E-04	mg/kg-day	1.00E-02	mg/kg-day	2.04E-02
				Chloromethane	7.26E-03	mg/L	1.99E-04	mg/kg-day	2.60E-02	mg/kg-day	7.65E-03
				Chromium	1.52E-01	mg/L	4.16E-03	mg/kg-day	1.50E+00	mg/kg-day	2.78E-03
				Chromium (VI)	4.72E-01	mg/L	1.29E-02	mg/kg-day	3.00E-03	mg/kg-day	4.31E+00
				cis-1,2-Dichloroethene	5.55E-02	mg/L	1.52E-03	mg/kg-day	1.00E-02	mg/kg-day	1.52E-01
				Cobalt	1.51E-02	mg/L	4.14E-04	mg/kg-day	2.00E-02	mg/kg-day	2.07E-02
				Copper	1.24E-02	mg/L	3.39E-04	mg/kg-day	4.00E-02	mg/kg-day	8.48E-03
				Cyanide	6.60E-02	mg/L	1.81E-03	mg/kg-day	2.00E-02	mg/kg-day	9.04E-02
				Ethylbenzene	7.18E-03	mg/L	1.97E-04	mg/kg-day	1.00E-01	mg/kg-day	1.97E-03
				Fluoranthene	1.80E-03	mg/L	4.93E-05	mg/kg-day	4.00E-02	mg/kg-day	1.23E-03
				Fluorene	1.00E-03	mg/L	2.74E-05	mg/kg-day	4.00E-02	mg/kg-day	6.85E-04

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Ingestion (continued)	Hexachlorobutadiene	4.00E-04	mg/L	1.10E-05	mg/kg-day	3.00E-04	mg/kg-day	3.65E-02
				Iron	1.70E+01	mg/L	4.65E-01	mg/kg-day	3.00E-01	mg/kg-day	1.55E+00
				Isopropylbenzene	5.50E-03	mg/L	1.51E-04	mg/kg-day	1.00E-01	mg/kg-day	1.51E-03
				Lead	7.38E-03	mg/L	2.02E-04	mg/kg-day	--	--	--
				m,p-Xylene	1.32E-02	mg/L	3.63E-04	mg/kg-day	2.00E-01	mg/kg-day	1.81E-03
				Manganese	9.91E+00	mg/L	2.71E-01	mg/kg-day	2.40E-02	mg/kg-day	1.13E+01
				Mercury	4.40E-05	mg/L	1.21E-06	mg/kg-day	3.00E-04	mg/kg-day	4.02E-03
				Methylene chloride	9.90E-03	mg/L	2.71E-04	mg/kg-day	6.00E-02	mg/kg-day	4.52E-03
				Methyl-T-Butyl-Ether	6.97E-03	mg/L	1.91E-04	mg/kg-day	8.60E-01	mg/kg-day	2.22E-04
				Molybdenum	7.50E-02	mg/L	2.05E-03	mg/kg-day	5.00E-03	mg/kg-day	4.11E-01
				Naphthalene	3.35E-02	mg/L	9.17E-04	mg/kg-day	2.00E-02	mg/kg-day	4.59E-02
				n-Butylbenzene	2.40E-03	mg/L	6.58E-05	mg/kg-day	4.00E-02	mg/kg-day	1.64E-03
				Nickel	1.83E-01	mg/L	5.01E-03	mg/kg-day	2.00E-02	mg/kg-day	2.50E-01
				n-Propylbenzene	1.22E-02	mg/L	3.35E-04	mg/kg-day	--	mg/kg-day	--
				o-Xylene	6.86E-03	mg/L	1.88E-04	mg/kg-day	2.00E-01	mg/kg-day	9.40E-04
				Phenanthrene	2.00E-03	mg/L	5.48E-05	mg/kg-day	3.00E-01	mg/kg-day	1.83E-04
				Phenol	6.60E-03	mg/L	1.81E-04	mg/kg-day	3.00E-01	mg/kg-day	6.02E-04
				p-Isopropyltoluene	8.00E-04	mg/L	2.19E-05	mg/kg-day	--	mg/kg-day	--
				Pyrene	3.00E-03	mg/L	8.22E-05	mg/kg-day	3.00E-02	mg/kg-day	2.74E-03
				sec-Butylbenzene	5.00E-04	mg/L	1.37E-05	mg/kg-day	4.00E-02	mg/kg-day	3.42E-04
				Selenium	1.08E-02	mg/L	2.96E-04	mg/kg-day	5.00E-03	mg/kg-day	5.92E-02
				Silver	5.48E-03	mg/L	1.50E-04	mg/kg-day	5.00E-03	mg/kg-day	3.00E-02
				Tert-Butanol	4.21E-01	mg/L	1.15E-02	mg/kg-day	--	mg/kg-day	--
				tert-Butylbenzene	3.00E-04	mg/L	8.22E-06	mg/kg-day	4.00E-02	mg/kg-day	2.05E-04
				Tetrachloroethene	5.84E-03	mg/L	1.60E-04	mg/kg-day	1.00E-02	mg/kg-day	1.60E-02
				Thallium	8.12E-03	mg/L	2.22E-04	mg/kg-day	6.60E-05	mg/kg-day	3.37E+00
				Toluene	6.35E-03	mg/L	1.74E-04	mg/kg-day	2.00E-01	mg/kg-day	8.70E-04
				trans-1,2-Dichloroethene	1.16E-02	mg/L	3.18E-04	mg/kg-day	2.00E-02	mg/kg-day	1.59E-02
				Trichloroethene	1.00E+00	mg/L	2.74E-02	mg/kg-day	3.00E-04	mg/kg-day	9.14E+01
				Vanadium	2.85E-02	mg/L	7.82E-04	mg/kg-day	7.00E-03	mg/kg-day	1.12E-01
				Vinyl chloride	2.54E-02	mg/L	6.95E-04	mg/kg-day	3.00E-03	mg/kg-day	2.32E-01
				Xylene (Total)	1.75E-02	mg/L	4.79E-04	mg/kg-day	2.00E-01	mg/kg-day	2.40E-03
				Zinc	1.50E-01	mg/L	4.10E-03	mg/kg-day	3.00E-01	mg/kg-day	1.37E-02
			Exposure Route Total								**1.19E+02**

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Dermal (bathing/ showering)	1,1,1-Trichloroethane	2.23E-02	mg/L	5.46E-05	mg/kg-day	2.80E-01	mg/kg-day	1.95E-04
				1,1,2-Trichloroethane	1.06E-02	mg/L	9.72E-06	mg/kg-day	4.00E-03	mg/kg-day	2.43E-03
				1,1-Dichlorethane	1.08E-01	mg/L	1.37E-04	mg/kg-day	1.00E-01	mg/kg-day	1.37E-03
				1,1-Dichlorethene	5.89E-01	mg/L	1.34E-03	mg/kg-day	5.00E-02	mg/kg-day	2.68E-02
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	1.53E-04	mg/kg-day	5.00E-02	mg/kg-day	3.05E-03
				1,2-Dichlorobenzene	1.34E-02	mg/L	1.26E-04	mg/kg-day	9.00E-02	mg/kg-day	1.40E-03
				1,2-Dichlorethane	1.25E-02	mg/L	9.53E-06	mg/kg-day	2.00E-02	mg/kg-day	4.77E-04
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	6.26E-04	mg/kg-day	1.00E-02	mg/kg-day	6.26E-02
				1,2-Dichloropropane	1.00E-04	mg/L	1.42E-07	mg/kg-day	1.10E-03	mg/kg-day	1.29E-04
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	1.43E-04	mg/kg-day	5.00E-02	mg/kg-day	2.87E-03
				1,3-Dichlorobenzene	4.50E-03	mg/L	4.99E-05	mg/kg-day	9.00E-04	mg/kg-day	5.54E-02
				1,4-Dichlorobenzene	6.42E-03	mg/L	5.69E-05	mg/kg-day	3.00E-02	mg/kg-day	1.90E-03
				2-Butanone	7.10E-02	mg/L	1.13E-05	mg/kg-day	6.00E-01	mg/kg-day	1.88E-05
				2-Hexanone	2.00E-03	mg/L	1.27E-06	mg/kg-day	8.00E-02	mg/kg-day	1.59E-05
				2-Methylnaphthalene	7.00E-04	mg/L	1.42E-05	mg/kg-day	4.00E-03	mg/kg-day	3.55E-03
				4-Methyl-2-pentanone	2.90E-02	mg/L	1.65E-05	mg/kg-day	8.00E-02	mg/kg-day	2.06E-04
				Acenaphthene	2.00E-03	mg/L	3.80E-05	mg/kg-day	6.00E-02	mg/kg-day	6.34E-04
				Acenaphthylene	2.00E-03	mg/L	4.03E-05	mg/kg-day	6.00E-02	mg/kg-day	6.72E-04
				Acetone	1.65E+00	mg/L	1.35E-04	mg/kg-day	9.00E-01	mg/kg-day	1.50E-04
				Aluminum	9.88E-01	mg/L	3.02E-04	mg/kg-day	1.00E+00	mg/kg-day	3.02E-04
				Antimony	1.43E-02	mg/L	2.23E-06	mg/kg-day	4.00E-04	mg/kg-day	5.57E-03
				Arsenic	1.98E-02	mg/L	5.47E-06	mg/kg-day	3.00E-04	mg/kg-day	1.82E-02
				Barium	2.70E-01	mg/L	1.55E-05	mg/kg-day	4.90E-03	mg/kg-day	3.17E-03
				Benzene	1.59E-02	mg/L	4.71E-05	mg/kg-day	4.00E-03	mg/kg-day	1.18E-02
				Benzo(a)anthracene	1.00E-04	mg/L	1.36E-05	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.00E-04	mg/L	1.77E-05	mg/kg-day	--	--	--
				Beryllium	1.41E-03	mg/L	1.33E-07	mg/kg-day	1.40E-05	mg/kg-day	9.53E-03
				bis(2-ethylhexyl)phthalate	7.09E-03	mg/L	2.00E-03	mg/kg-day	2.00E-02	mg/kg-day	9.99E-02
				Bromodichloromethane	7.10E-03	mg/L	5.10E-06	mg/kg-day	2.00E-02	mg/kg-day	2.55E-04
				Cadmium	1.60E-02	mg/L	8.02E-07	mg/kg-day	5.00E-04	mg/kg-day	1.60E-03
				Carbon disulfide	7.53E-03	mg/L	1.68E-05	mg/kg-day	1.00E-01	mg/kg-day	1.68E-04
				Chlorobenzene	6.07E-03	mg/L	3.54E-05	mg/kg-day	2.00E-02	mg/kg-day	1.77E-03
				Chloroethane	1.23E-02	mg/L	1.41E-05	mg/kg-day	4.00E-01	mg/kg-day	3.52E-05
				Chloroform	7.44E-03	mg/L	9.49E-06	mg/kg-day	1.00E-02	mg/kg-day	9.49E-04

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Dermal (bathing/ showering) (continued)	Chloromethane	7.26E-03	mg/L	4.31E-06	mg/kg-day	2.60E-02	mg/kg-day	1.66E-04
				Chromium	1.52E-01	mg/L	2.17E-05	mg/kg-day	1.50E+00	mg/kg-day	1.45E-05
				Chromium (VI)	4.72E-01	mg/L	6.75E-05	mg/kg-day	3.00E-03	mg/kg-day	2.25E-02
				cis-1,2-Dichloroethene	5.55E-02	mg/L	1.18E-04	mg/kg-day	1.00E-02	mg/kg-day	1.18E-02
				Cobalt	1.51E-02	mg/L	2.62E-06	mg/kg-day	2.00E-02	mg/kg-day	1.31E-04
				Copper	1.24E-02	mg/L	5.44E-07	mg/kg-day	4.00E-02	mg/kg-day	1.36E-05
				Cyanide	6.60E-02	mg/L	8.17E-06	mg/kg-day	2.00E-02	mg/kg-day	4.09E-04
				Ethylbenzene	7.18E-03	mg/L	7.59E-05	mg/kg-day	1.00E-01	mg/kg-day	7.59E-04
				Fluoranthene	1.80E-03	mg/L	1.32E-04	mg/kg-day	4.00E-02	mg/kg-day	3.30E-03
				Fluorene	1.00E-03	mg/L	2.45E-05	mg/kg-day	4.00E-02	mg/kg-day	6.11E-04
				Hexachlorobutadiene	4.00E-04	mg/L	6.92E-06	mg/kg-day	3.00E-04	mg/kg-day	2.31E-02
				Iron	1.70E+01	mg/L	6.00E-04	mg/kg-day	3.00E-01	mg/kg-day	2.00E-03
				Isopropylbenzene	5.50E-03	mg/L	1.10E-04	mg/kg-day	1.00E-01	mg/kg-day	1.10E-03
				Lead	7.38E-03	mg/L	3.61E-07	mg/kg-day	--	--	--
				m,p-Xylene	1.32E-02	mg/L	1.52E-04	mg/kg-day	2.00E-01	mg/kg-day	7.59E-04
				Manganese	9.91E+00	mg/L	1.81E-03	mg/kg-day	2.40E-02	mg/kg-day	7.56E-02
				Mercury	4.40E-05	mg/L	6.29E-09	mg/kg-day	2.10E-05	mg/kg-day	3.00E-04
				Methylene chloride	9.90E-03	mg/L	6.32E-06	mg/kg-day	6.00E-02	mg/kg-day	1.05E-04
				Methyl-T-Butyl-Ether	6.97E-03	mg/L	2.56E-06	mg/kg-day	8.60E-01	mg/kg-day	2.98E-06
				Molybdenum	7.50E-02	mg/L	7.72E-06	mg/kg-day	5.00E-03	mg/kg-day	1.54E-03
				Naphthalene	3.35E-02	mg/L	3.32E-04	mg/kg-day	2.00E-02	mg/kg-day	1.66E-02
				n-Butylbenzene	2.40E-03	mg/L	4.81E-05	mg/kg-day	4.00E-02	mg/kg-day	1.20E-03
				Nickel	1.83E-01	mg/L	8.60E-06	mg/kg-day	8.00E-04	mg/kg-day	1.08E-02
				n-Propylbenzene	1.22E-02	mg/L	2.45E-04	mg/kg-day	--	mg/kg-day	--
				o-Xylene	6.86E-03	mg/L	6.91E-05	mg/kg-day	2.00E-01	mg/kg-day	3.45E-04
				Phenanthrene	2.00E-03	mg/L	6.55E-05	mg/kg-day	3.00E-01	mg/kg-day	2.18E-04
				Phenol	6.60E-03	mg/L	5.22E-06	mg/kg-day	3.00E-01	mg/kg-day	1.74E-05
				p-Isopropyltoluene	8.00E-04	mg/L	1.60E-05	mg/kg-day	--	mg/kg-day	--
				Pyrene	3.00E-03	mg/L	1.39E-04	mg/kg-day	3.00E-02	mg/kg-day	4.63E-03
				sec-Butylbenzene	5.00E-04	mg/L	1.00E-05	mg/kg-day	--	mg/kg-day	--
				Selenium	1.08E-02	mg/L	1.40E-06	mg/kg-day	1.50E-03	mg/kg-day	9.30E-04
				Silver	5.48E-03	mg/L	4.77E-07	mg/kg-day	2.00E-04	mg/kg-day	2.39E-03
				Tert-Butanol	4.21E-01	mg/L	1.14E-04	mg/kg-day	--	mg/kg-day	--
				tert-Butylbenzene	3.00E-04	mg/L	6.01E-06	mg/kg-day	4.00E-02	mg/kg-day	1.50E-04

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Dermal (bathing/ showering) (continued)	Tetrachloroethene	5.84E-03	mg/L	4.02E-05	mg/kg-day	1.00E-02	mg/kg-day	4.02E-03
				Thallium	8.12E-03	mg/L	1.16E-06	mg/kg-day	6.60E-05	mg/kg-day	1.76E-02
				Toluene	6.35E-03	mg/L	4.11E-05	mg/kg-day	2.00E-01	mg/kg-day	2.06E-04
				trans-1,2-Dichloroethene	1.16E-02	mg/L	7.98E-05	mg/kg-day	2.00E-02	mg/kg-day	3.99E-03
				Trichloroethene	1.00E+00	mg/L	2.25E-03	mg/kg-day	3.00E-04	mg/kg-day	7.49E+00
				Vanadium	2.85E-02	mg/L	5.51E-06	mg/kg-day	1.82E-04	mg/kg-day	3.03E-02
				Vinyl chloride	2.54E-02	mg/L	4.10E-05	mg/kg-day	3.00E-03	mg/kg-day	1.37E-02
				Xylene (Total)	1.75E-02	mg/L	2.01E-04	mg/kg-day	2.00E-01	mg/kg-day	1.00E-03
				Zinc	1.50E-01	mg/L	7.32E-06	mg/kg-day	3.00E-01	mg/kg-day	2.44E-05
			Exposure Route Total								**8.06E+00**
		Exposure Point Total									**1.27E+02**
	Exposure Medium Total										**1.27E+02**
	Air	Domestic Use of Groundwater Indoors	Inhalation (bathing/ showering)	1,1,1-Trichloroethane	2.23E-02	mg/L	7.36E-05	mg/kg-day	6.30E-01	mg/kg-day	1.17E-04
				1,1,2-Trichloroethane	1.06E-02	mg/L	3.49E-05	mg/kg-day	4.00E-03	mg/kg-day	8.72E-03
				1,1-Dichlorethane	1.08E-01	mg/L	3.57E-04	mg/kg-day	1.40E-01	mg/kg-day	2.55E-03
				1,1-Dichlorethene	5.89E-01	mg/L	1.94E-03	mg/kg-day	5.71E-02	mg/kg-day	3.40E-02
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	3.73E-05	mg/kg-day	1.70E-03	mg/kg-day	2.19E-02
				1,2-Dichlorobenzene	1.34E-02	mg/L	4.41E-05	mg/kg-day	5.70E-02	mg/kg-day	7.73E-04
				1,2-Dichlorethane	1.25E-02	mg/L	4.11E-05	mg/kg-day	6.86E-01	mg/kg-day	6.00E-05
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	9.68E-04	mg/kg-day	1.00E-02	mg/kg-day	9.68E-02
				1,2-Dichloropropane	1.00E-04	mg/L	3.30E-07	mg/kg-day	1.10E-03	mg/kg-day	3.00E-04
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	3.50E-05	mg/kg-day	1.70E-03	mg/kg-day	2.06E-02
				1,3-Dichlorobenzene	4.50E-03	mg/L	1.48E-05	mg/kg-day	3.00E-02	mg/kg-day	4.95E-04
				1,4-Dichlorobenzene	6.42E-03	mg/L	2.12E-05	mg/kg-day	2.29E-01	mg/kg-day	9.26E-05
				2-Butanone	7.10E-02	mg/L	2.34E-04	mg/kg-day	1.43E+00	mg/kg-day	1.64E-04
				2-Hexanone	2.00E-03	mg/L	6.59E-06	mg/kg-day	8.60E-01	mg/kg-day	7.67E-06
				2-MethylNaphthalene	7.00E-04	mg/L	2.31E-06	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	2.90E-02	mg/L	9.56E-05	mg/kg-day	8.60E-01	mg/kg-day	1.11E-04
				Acenaphthene	2.00E-03	mg/L	6.59E-06	mg/kg-day	6.00E-02	mg/kg-day	1.10E-04
				Acenaphthylene	2.00E-03	mg/L	6.59E-06	mg/kg-day	6.00E-02	mg/kg-day	1.10E-04
				Acetone	1.65E+00	mg/L	5.45E-03	mg/kg-day	9.00E-01	mg/kg-day	6.06E-03
				Benzene	1.59E-02	mg/L	5.24E-05	mg/kg-day	8.57E-03	mg/kg-day	6.11E-03
				Bromodichloromethane	7.10E-03	mg/L	2.34E-05	mg/kg-day	2.00E-02	mg/kg-day	1.17E-03
				Carbon disulfide	7.53E-03	mg/L	2.48E-05	mg/kg-day	2.00E-01	mg/kg-day	1.24E-04

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air (continued)	Domestic Use of Groundwater Indoors (continued)	Inhalation (bathing/ showering) (continued)	Chlorobenzene	6.07E-03	mg/L	2.00E-05	mg/kg-day	1.71E-02	mg/kg-day	1.17E-03
				Chloroethane	1.23E-02	mg/L	4.07E-05	mg/kg-day	2.90E+00	mg/kg-day	1.40E-05
				Chloroform	7.44E-03	mg/L	2.45E-05	mg/kg-day	1.40E-04	mg/kg-day	1.75E-01
				Chloromethane	7.26E-03	mg/L	2.39E-05	mg/kg-day	2.57E-02	mg/kg-day	9.31E-04
				cis-1,2-Dichloroethene	5.55E-02	mg/L	1.83E-04	mg/kg-day	1.00E-02	mg/kg-day	1.83E-02
				Cyanide	6.60E-02	mg/L	2.18E-04	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	7.18E-03	mg/L	2.37E-05	mg/kg-day	2.86E-01	mg/kg-day	8.29E-05
				Fluorene	1.00E-03	mg/L	3.30E-06	mg/kg-day	4.00E-02	mg/kg-day	8.24E-05
				Hexachlorobutadiene	4.00E-04	mg/L	1.32E-06	mg/kg-day	3.00E-04	mg/kg-day	4.40E-03
				Isopropylbenzene	5.50E-03	mg/L	1.81E-05	mg/kg-day	1.10E-01	mg/kg-day	1.65E-04
				m,p-Xylene	1.32E-02	mg/L	4.37E-05	mg/kg-day	2.86E-02	mg/kg-day	1.53E-03
				Methylene Chloride	9.90E-03	mg/L	3.27E-05	mg/kg-day	8.57E-01	mg/kg-day	3.81E-05
				Methyl-T-Butyl-ether	6.97E-03	mg/L	2.30E-05	mg/kg-day	8.57E-01	mg/kg-day	2.68E-05
				Naphthalene	3.35E-02	mg/L	1.10E-04	mg/kg-day	8.57E-04	mg/kg-day	1.29E-01
				n-Butylbenzene	2.40E-03	mg/L	7.91E-06	mg/kg-day	1.14E-02	mg/kg-day	6.92E-04
				n-propylbenzene	1.22E-02	mg/L	4.03E-05	mg/kg-day	4.00E-02	mg/kg-day	1.01E-03
				o-Xylene	6.86E-03	mg/L	2.26E-05	mg/kg-day	2.86E-02	mg/kg-day	7.92E-04
				Phenanthrene	2.00E-03	mg/L	6.59E-06	mg/kg-day	3.00E-01	mg/kg-day	2.20E-05
				Pyrene	3.00E-03	mg/L	9.89E-06	mg/kg-day	3.00E-02	mg/kg-day	3.30E-04
				sec-Butylbenzene	5.00E-04	mg/L	1.65E-06	mg/kg-day	1.14E-02	mg/kg-day	1.44E-04
				tert-Butylbenzene	3.00E-04	mg/L	9.89E-07	mg/kg-day	1.14E-02	mg/kg-day	8.66E-05
				trans-1,2-Dichloroethene	1.16E-02	mg/L	3.83E-05	mg/kg-day	2.00E-02	mg/kg-day	1.91E-03
				Tetrachloroethene	5.84E-03	mg/L	1.93E-05	mg/kg-day	1.71E-01	mg/kg-day	1.12E-04
				Toluene	6.35E-03	mg/L	2.09E-05	mg/kg-day	1.14E-01	mg/kg-day	1.83E-04
				Trichloroethene	1.00E+00	mg/L	3.30E-03	mg/kg-day	1.00E-02	mg/kg-day	3.30E-01
				Vinyl chloride	2.54E-02	mg/L	8.37E-05	mg/kg-day	2.86E-02	mg/kg-day	2.93E-03
				Xylene (Total)	1.75E-02	mg/L	5.77E-05	mg/kg-day	2.86E-02	mg/kg-day	2.02E-03
			Exposure Route Total								**8.71E-01**
		Exposure Point Total									**8.71E-01**
		Indoor Air	Inhalation (Vapor Intrusion)	1,1,1-Trichloroethane	2.01E-03	mg/m^3	5.50E-04	mg/kg-day	6.30E-01	mg/kg-day	8.72E-04
				1,1,2-Trichloroethane	4.59E-05	mg/m^3	1.25E-05	mg/kg-day	4.00E-03	mg/kg-day	3.13E-03
				1,1-Dichlorethane	3.16E-03	mg/m^3	8.63E-04	mg/kg-day	1.40E-01	mg/kg-day	6.16E-03
				1,1-Dichlorethene	9.92E-02	mg/m^3	2.71E-02	mg/kg-day	5.71E-02	mg/kg-day	4.73E-01
				1,2,4-Trimethylbenzene	2.33E-04	mg/m^3	6.37E-05	mg/kg-day	1.70E-03	mg/kg-day	3.75E-02

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air (continued)	Indoor Air (continued)	Inhalation (Vapor Intrusion) (continued)	1,2-Dichlorobenzene	9.49E-05	mg/m^3	2.59E-05	mg/kg-day	5.70E-02	mg/kg-day	4.54E-04
				1,2-Dichlorethane	7.70E-05	mg/m^3	2.10E-05	mg/kg-day	6.86E-01	mg/kg-day	3.06E-05
				1,2-Dichlorethene (Total)	6.08E-03	mg/m^3	1.66E-03	mg/kg-day	1.00E-02	mg/kg-day	1.66E-01
				1,2-Dichloropropane	1.41E-06	mg/m^3	3.84E-07	mg/kg-day	1.10E-03	mg/kg-day	3.49E-04
				1,3,5-Trimethylbenzene	2.08E-04	mg/m^3	5.69E-05	mg/kg-day	1.70E-03	mg/kg-day	3.35E-02
				1,3-Dichlorobenzene	5.39E-05	mg/m^3	1.47E-05	mg/kg-day	3.00E-02	mg/kg-day	4.90E-04
				1,4-Dichlorobenzene	5.92E-05	mg/m^3	1.61E-05	mg/kg-day	2.29E-01	mg/kg-day	7.06E-05
				2-Butanone	2.35E-05	mg/m^3	6.42E-06	mg/kg-day	1.43E+00	mg/kg-day	4.49E-06
				2-Hexanone	1.31E-06	mg/m^3	3.58E-07	mg/kg-day	8.60E-01	mg/kg-day	4.16E-07
				2-MethylNaphthalene	8.28E-07	mg/m^3	2.26E-07	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	1.90E-05	mg/m^3	5.19E-06	mg/kg-day	8.60E-01	mg/kg-day	6.04E-06
				Acenaphthene	6.52E-07	mg/m^3	1.78E-07	mg/kg-day	6.00E-02	mg/kg-day	2.97E-06
				Acenaphthylene	6.52E-07	mg/m^3	1.78E-07	mg/kg-day	6.00E-02	mg/kg-day	2.97E-06
				Acetone	5.45E-04	mg/m^3	1.49E-04	mg/kg-day	9.00E-01	mg/kg-day	1.65E-04
				Benzene	5.01E-04	mg/m^3	1.37E-04	mg/kg-day	8.57E-03	mg/kg-day	1.59E-02
				Bromodichloromethane	2.55E-05	mg/m^3	6.97E-06	mg/kg-day	2.00E-02	mg/kg-day	3.48E-04
				Carbon disulfide	1.61E-03	mg/m^3	4.39E-04	mg/kg-day	2.00E-01	mg/kg-day	2.19E-03
				Chlorobenzene	9.89E-05	mg/m^3	2.70E-05	mg/kg-day	1.71E-02	mg/kg-day	1.57E-03
				Chloroethane	1.47E-03	mg/m^3	4.01E-04	mg/kg-day	2.90E+00	mg/kg-day	1.38E-04
				Chloroform	1.82E-04	mg/m^3	4.97E-05	mg/kg-day	1.40E-04	mg/kg-day	3.55E-01
				Chloromethane	5.88E-04	mg/m^3	1.60E-04	mg/kg-day	2.57E-02	mg/kg-day	6.24E-03
				cis-1,2-Dichloroethene	1.15E-03	mg/m^3	3.14E-04	mg/kg-day	1.00E-02	mg/kg-day	3.14E-02
				Cyanide	9.60E-05	mg/m^3	2.62E-05	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	2.48E-04	mg/m^3	6.78E-05	mg/kg-day	2.86E-01	mg/kg-day	2.37E-04
				Fluorene	1.34E-07	mg/m^3	3.66E-08	mg/kg-day	4.00E-02	mg/kg-day	9.14E-07
				Hexachlorobutadiene	9.57E-06	mg/m^3	2.61E-06	mg/kg-day	3.00E-04	mg/kg-day	8.71E-03
				Isopropylbenzene	2.12E-02	mg/m^3	5.79E-03	mg/kg-day	1.10E-01	mg/kg-day	5.26E-02
				m,p-Xylene	4.52E-04	mg/m^3	1.23E-04	mg/kg-day	2.86E-02	mg/kg-day	4.31E-03
				Methylene Chloride	1.47E-04	mg/m^3	4.01E-05	mg/kg-day	8.57E-01	mg/kg-day	4.67E-05
				Methyl-T-Butyl-ether	2.95E-05	mg/m^3	8.06E-06	mg/kg-day	8.57E-01	mg/kg-day	9.41E-06
				Naphthalene	5.03E-05	mg/m^3	1.37E-05	mg/kg-day	8.57E-04	mg/kg-day	1.60E-02
				n-Butylbenzene	9.94E-05	mg/m^3	2.71E-05	mg/kg-day	1.14E-02	mg/kg-day	2.37E-03
				n-propylbenzene	4.44E-04	mg/m^3	1.21E-04	mg/kg-day	4.00E-02	mg/kg-day	3.03E-03
				o-Xylene	1.73E-04	mg/m^3	4.71E-05	mg/kg-day	2.86E-02	mg/kg-day	1.65E-03

TABLE F-7.1.3.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air (continued)	Indoor Air (continued)	Inhalation (Vapor Intrusion) (continued)	Phenanthrene	1.75E-07	mg/m^3	4.79E-08	mg/kg-day	3.00E-01	mg/kg-day	1.60E-07
				Pyrene	6.77E-08	mg/m^3	1.85E-08	mg/kg-day	3.00E-02	mg/kg-day	6.16E-07
				sec-Butylbenzene	5.50E-08	mg/m^3	1.50E-08	mg/kg-day	1.14E-02	mg/kg-day	1.31E-06
				tert-Butylbenzene	1.30E-05	mg/m^3	3.54E-06	mg/kg-day	1.14E-02	mg/kg-day	3.10E-04
				trans-1,2-Dichloroethene	9.43E-04	mg/m^3	2.57E-04	mg/kg-day	2.00E-02	mg/kg-day	1.29E-02
				Tetrachloroethene	4.75E-04	mg/m^3	1.30E-04	mg/kg-day	1.71E-01	mg/kg-day	7.56E-04
				Toluene	2.22E-04	mg/m^3	6.05E-05	mg/kg-day	1.14E-01	mg/kg-day	5.30E-04
				Trichloroethene	5.23E-02	mg/m^3	1.43E-02	mg/kg-day	1.00E-02	mg/kg-day	1.43E+00
				Vinyl chloride	5.47E-03	mg/m^3	1.49E-03	mg/kg-day	2.86E-02	mg/kg-day	5.22E-02
				Xylene (Total)	5.96E-04	mg/m^3	1.63E-04	mg/kg-day	2.86E-02	mg/kg-day	5.70E-03
			Exposure Route Total								**2.72E+00**
		Exposure Point Total									**2.72E+00**
	Exposure Medium Total										**3.60E+00**
Medium Total											**1.31E+02**
										Total of Receptor Hazards Across All Media	**1.31E+02**

Notes:

--	Not applicable or not available
EPA	U.S. Environmental Protection Agency
EPC	Exposure point concentration
ft bgs	Feet below ground surface
mg/kg	Milligram per kilogram
mg/kg-day	Milligram per kilogram per day
mg/L	Milligram per liter
mg/m^3	Milligram per meter
RAGS	Risk Assessment Guidelines for Superfund
RfD	Reference dose
RfC	Reference concentration
RI	Remedial Investigation
RME	Reasonable maximum expsoure
VOC	Volatile Organic Compound

(a) See the Vapor Intrusion to Indoor Air Evaluation for determination of the modeled indoor air concentration.

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs)	Soil	Site Soil	Ingestion	2-Methylnaphthalene	2.85E-02	mg/kg	3.64E-07	mg/kg-day	4.00E-03	mg/kg-day	9.11E-05
				4,4'-DDT	9.65E-03	mg/kg	1.23E-07	mg/kg-day	5.00E-04	mg/kg-day	2.47E-04
				Acenaphthene	1.46E-01	mg/kg	1.86E-06	mg/kg-day	6.00E-02	mg/kg-day	3.11E-05
				Acenaphthylene	1.56E-02	mg/kg	1.99E-07	mg/kg-day	6.00E-02	mg/kg-day	3.32E-06
				Acetone	1.40E-01	mg/kg	1.79E-06	mg/kg-day	9.00E-01	mg/kg-day	1.99E-06
				alpha-Chlordane	1.90E-03	mg/kg	2.43E-08	mg/kg-day	5.00E-04	mg/kg-day	4.86E-05
				Aluminum	9.36E+03	mg/kg	1.20E-01	mg/kg-day	1.00E+00	mg/kg-day	1.20E-01
				Anthracene	4.19E-01	mg/kg	5.35E-06	mg/kg-day	3.00E-01	mg/kg-day	1.78E-05
				Aroclor-1260	2.01E+00	mg/kg	2.57E-05	mg/kg-day	2.00E-05	mg/kg-day	1.28E+00
				Arsenic	7.86E+00	mg/kg	1.00E-04	mg/kg-day	3.00E-04	mg/kg-day	3.35E-01
				Barium	1.09E+02	mg/kg	1.40E-03	mg/kg-day	7.00E-02	mg/kg-day	2.00E-02
				Benzo(a)anthracene	1.05E+00	mg/kg	1.35E-05	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.58E-01	mg/kg	1.10E-05	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.81E-01	mg/kg	2.32E-06	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.86E-01	mg/kg	2.38E-06	mg/kg-day	3.00E-02	mg/kg-day	7.93E-05
				Benzo(k)fluoranthene	5.78E-01	mg/kg	7.40E-06	mg/kg-day	--	--	--
				Beryllium	1.07E+00	mg/kg	1.37E-05	mg/kg-day	2.00E-03	mg/kg-day	6.87E-03
				Cadmium	8.26E-01	mg/kg	1.06E-05	mg/kg-day	5.00E-04	mg/kg-day	2.11E-02
				Carbazole	1.60E-01	mg/kg	2.05E-06	mg/kg-day	--	--	--
				Chlordane	1.49E-01	mg/kg	1.90E-06	mg/kg-day	5.00E-04	mg/kg-day	3.81E-03
				Chromium	3.18E+01	mg/kg	4.07E-04	mg/kg-day	1.50E+00	mg/kg-day	2.71E-04
				Chrysene	2.08E-01	mg/kg	2.66E-06	mg/kg-day	--	--	--
				Cobalt	7.26E+00	mg/kg	9.28E-05	mg/kg-day	2.00E-02	mg/kg-day	4.64E-03
				Copper	3.71E+01	mg/kg	4.74E-04	mg/kg-day	4.00E-02	mg/kg-day	1.18E-02
				Dibenzo(a,h)anthracene	7.09E-02	mg/kg	9.07E-07	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	1.53E-05	mg/kg-day	2.00E-03	mg/kg-day	7.67E-03
				Diethylphthalate	2.20E-02	mg/kg	2.81E-07	mg/kg-day	8.00E-01	mg/kg-day	3.52E-07
				di-n-Butylphthalate	1.30E-01	mg/kg	1.66E-06	mg/kg-day	1.00E-01	mg/kg-day	1.66E-05
				Fluoranthene	4.21E+00	mg/kg	5.38E-05	mg/kg-day	4.00E-02	mg/kg-day	1.34E-03
				Fluorene	2.16E-01	mg/kg	2.77E-06	mg/kg-day	4.00E-02	mg/kg-day	6.91E-05
				gamma-Chlordane	2.00E-03	mg/kg	2.56E-08	mg/kg-day	5.00E-04	mg/kg-day	5.11E-05
				Indeno(1,2,3-cd)pyrene	3.38E-01	mg/kg	4.32E-06	mg/kg-day	--	--	--
				Iron	2.04E+04	mg/kg	2.61E-01	mg/kg-day	3.00E-01	mg/kg-day	8.71E-01
				Lead	3.69E+02	mg/kg	4.72E-03	mg/kg-day	--	--	--
				Manganese	3.75E+02	mg/kg	4.79E-03	mg/kg-day	2.40E-02	mg/kg-day	2.00E-01
				Mercury	6.77E-01	mg/kg	8.65E-06	mg/kg-day	3.00E-04	mg/kg-day	2.88E-02
				Naphthalene	5.14E-02	mg/kg	6.57E-07	mg/kg-day	2.00E-02	mg/kg-day	3.28E-05
				Nickel	2.90E+01	mg/kg	3.71E-04	mg/kg-day	2.00E-02	mg/kg-day	1.86E-02
				n-Nitroso-diphenylamine	2.70E-02	mg/kg	3.45E-07	mg/kg-day	2.00E-02	mg/kg-day	1.73E-05
				Phenanthrene	1.76E+00	mg/kg	2.25E-05	mg/kg-day	3.00E-01	mg/kg-day	7.49E-05
				Pyrene	1.90E+00	mg/kg	2.43E-05	mg/kg-day	3.00E-02	mg/kg-day	8.10E-04

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Ingestion (continued)	Silver	4.50E-01	mg/kg	5.75E-06	mg/kg-day	5.00E-03	mg/kg-day	1.15E-03
				Thallium	4.60E+00	mg/kg	5.88E-05	mg/kg-day	6.60E-05	mg/kg-day	8.91E-01
				Titanium	4.00E+02	mg/kg	5.11E-03	mg/kg-day	4.00E+00	mg/kg-day	1.28E-03
				Vanadium	3.19E+01	mg/kg	4.08E-04	mg/kg-day	7.00E-03	mg/kg-day	5.84E-02
				Zinc	2.14E+02	mg/kg	2.74E-03	mg/kg-day	3.00E-01	mg/kg-day	9.13E-03
			Exposure Route Total								**3.90E+00**
			Dermal	2-Methylnaphthalene	2.85E-02	mg/kg	1.0E-08	mg/kg-day	4.00E-03	mg/kg-day	2.55E-06
				4,4'-DDT	9.65E-03	mg/kg	1.0E-08	mg/kg-day	5.00E-04	mg/kg-day	2.07E-05
				Acenaphthene	1.46E-01	mg/kg	6.8E-07	mg/kg-day	6.00E-02	mg/kg-day	1.13E-05
				Acenaphthylene	1.56E-02	mg/kg	5.6E-09	mg/kg-day	6.00E-02	mg/kg-day	9.30E-08
				Acetone	1.40E-01	mg/kg	5.0E-08	mg/kg-day	9.00E-01	mg/kg-day	5.57E-08
				alpha-Chlordane	1.90E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Aluminum	9.36E+03	mg/kg	3.4E-04	mg/kg-day	1.00E+00	mg/kg-day	3.35E-04
				Anthracene	4.19E-01	mg/kg	1.9E-06	mg/kg-day	3.00E-01	mg/kg-day	6.49E-06
				Aroclor-1260	2.01E+00	mg/kg	1.0E-05	mg/kg-day	2.00E-05	mg/kg-day	5.03E-01
				Arsenic	7.86E+00	mg/kg	8.4E-06	mg/kg-day	3.00E-04	mg/kg-day	2.81E-02
				Barium	1.09E+02	mg/kg	3.9E-06	mg/kg-day	4.90E-03	mg/kg-day	8.00E-04
				Benzo(a)anthracene	1.05E+00	mg/kg	4.9E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.58E-01	mg/kg	4.0E-06	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.81E-01	mg/kg	8.4E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.86E-01	mg/kg	8.7E-07	mg/kg-day	3.00E-02	mg/kg-day	2.89E-05
				Benzo(k)fluoranthene	5.78E-01	mg/kg	2.7E-06	mg/kg-day	--	--	--
				Beryllium	1.07E+00	mg/kg	3.8E-08	mg/kg-day	1.40E-05	mg/kg-day	2.75E-03
				Cadmium	8.26E-01	mg/kg	3.0E-08	mg/kg-day	5.00E-04	mg/kg-day	5.91E-05
				Carbazole	1.60E-01	mg/kg	5.7E-08	mg/kg-day	--	--	--
				Chlordane	1.49E-01	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Chromium	3.18E+01	mg/kg	1.1E-06	mg/kg-day	1.50E+00	mg/kg-day	7.59E-07
				Chrysene	2.08E-01	mg/kg	9.7E-07	mg/kg-day	--	--	--
				Cobalt	7.26E+00	mg/kg	2.6E-07	mg/kg-day	2.00E-02	mg/kg-day	1.30E-05
				Copper	3.71E+01	mg/kg	1.3E-06	mg/kg-day	4.00E-02	mg/kg-day	3.32E-05
				Dibenzo(a,h)anthracene	7.09E-02	mg/kg	3.3E-07	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	4.3E-07	mg/kg-day	2.00E-03	mg/kg-day	2.15E-04
				Diethylphthalate	2.20E-02	mg/kg	7.9E-09	mg/kg-day	8.00E-01	mg/kg-day	9.84E-09
				di-n-Butylphthalate	1.30E-01	mg/kg	4.7E-08	mg/kg-day	1.00E+01	mg/kg-day	4.65E-09
				Fluoranthene	4.21E+00	mg/kg	2.0E-05	mg/kg-day	4.00E-02	mg/kg-day	4.89E-04
				Fluorene	2.16E-01	mg/kg	1.0E-06	mg/kg-day	4.00E-02	mg/kg-day	2.52E-05
				gamma-Chlordane	2.00E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Indeno(1,2,3-cd)pyrene	3.38E-01	mg/kg	1.6E-06	mg/kg-day	--	--	--
				Iron	2.04E+04	mg/kg	7.3E-04	mg/kg-day	3.00E-01	mg/kg-day	2.44E-03
				Lead	3.69E+02	mg/kg	1.3E-05	mg/kg-day	--	--	--
				Manganese	3.75E+02	mg/kg	1.3E-05	mg/kg-day	2.40E-02	mg/kg-day	5.59E-04

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Mercury	6.77E-01	mg/kg	--	mg/kg-day	2.10E-05	mg/kg-day	--
				Naphthalene	5.14E-02	mg/kg	2.4E-07	mg/kg-day	2.00E-02	mg/kg-day	1.20E-05
				Nickel	2.90E+01	mg/kg	1.0E-06	mg/kg-day	8.00E-04	mg/kg-day	1.30E-03
				n-Nitroso-diphenylamine	2.70E-02	mg/kg	9.7E-09	mg/kg-day	2.00E-02	mg/kg-day	4.83E-07
				Phenanthrene	1.76E+00	mg/kg	6.3E-07	mg/kg-day	3.00E-01	mg/kg-day	2.10E-06
				Pyrene	1.90E+00	mg/kg	8.8E-06	mg/kg-day	3.00E-02	mg/kg-day	2.95E-04
				Silver	4.50E-01	mg/kg	1.6E-08	mg/kg-day	2.00E-04	mg/kg-day	8.05E-05
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.00E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Vanadium	3.19E+01	mg/kg	1.1E-06	mg/kg-day	1.82E-04	mg/kg-day	6.28E-03
				Zinc	2.14E+02	mg/kg	7.7E-06	mg/kg-day	3.00E-01	mg/kg-day	2.56E-05
			Exposure Route Total								**5.47E-01**
		Exposure Point Total									**4.44E+00**
		Homegrown Produce	Ingestion	2-Methylnaphthalene	2.85E-02	mg/kg	--	mg/kg-day	4.00E-03	mg/kg-day	--
				4,4'-DDT	9.65E-03	mg/kg	4.1E-10	mg/kg-day	5.00E-04	mg/kg-day	8.30E-07
				Acenaphthene	1.46E-01	mg/kg	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Acenaphthylene	1.56E-02	mg/kg	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Acetone	1.40E-01	mg/kg	--	mg/kg-day	9.00E-01	mg/kg-day	--
				alpha-Chlordane	1.90E-03	mg/kg	3.6E-10	mg/kg-day	5.00E-04	mg/kg-day	7.27E-07
				Aluminum	9.36E+03	mg/kg	--	mg/kg-day	1.00E+00	mg/kg-day	--
				Anthracene	4.19E-01	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Aroclor-1260	2.01E+00	mg/kg	1.6E-07	mg/kg-day	2.00E-05	mg/kg-day	8.08E-03
				Arsenic	7.86E+00	mg/kg	4.0E-05	mg/kg-day	3.00E-04	mg/kg-day	1.33E-01
				Barium	1.09E+02	mg/kg	--	mg/kg-day	7.00E-02	mg/kg-day	--
				Benzo(a)anthracene	1.05E+00	mg/kg	8.7E-08	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.58E-01	mg/kg	4.7E-08	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.81E-01	mg/kg	1.2E-08	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.86E-01	mg/kg	--	mg/kg-day	3.00E-02	mg/kg-day	--
				Benzo(k)fluoranthene	5.78E-01	mg/kg	3.1E-08	mg/kg-day	--	--	--
				Beryllium	1.07E+00	mg/kg	--	mg/kg-day	2.00E-03	mg/kg-day	--
				Cadmium	8.26E-01	mg/kg	5.3E-05	mg/kg-day	5.00E-04	mg/kg-day	1.06E-01
				Carbazole	1.60E-01	mg/kg	4.6E-06	mg/kg-day	--	--	--
				Chlordane	1.49E-01	mg/kg	2.8E-08	mg/kg-day	5.00E-04	mg/kg-day	5.70E-05
				Chromium	3.18E+01	mg/kg	--	mg/kg-day	1.50E+00	mg/kg-day	--
				Chrysene	2.08E-01	mg/kg	1.7E-08	mg/kg-day	--	--	--
				Cobalt	7.26E+00	mg/kg	--	mg/kg-day	2.00E-02	mg/kg-day	--
				Copper	3.71E+01	mg/kg	--	mg/kg-day	4.00E-02	mg/kg-day	--
				Dibenzo(a,h)anthracene	7.09E-02	mg/kg	2.5E-09	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	--	mg/kg-day	2.00E-03	mg/kg-day	--
				Diethylphthalate	2.20E-02	mg/kg	1.1E-06	mg/kg-day	8.00E-01	mg/kg-day	1.42E-06
				di-n-Butylphthalate	1.30E-01	mg/kg	2.1E-08	mg/kg-day	1.00E-01	mg/kg-day	2.14E-07

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Soil (continued)	Homegrown Produce (continued)	Ingestion (continued)	Fluoranthene	4.21E+00	mg/kg	3.7E-07	mg/kg-day	4.00E-02	mg/kg-day	9.32E-06
				Fluorene	2.16E-01	mg/kg	--	mg/kg-day	4.00E-02	mg/kg-day	--
				gamma-Chlordane	2.00E-03	mg/kg	3.8E-10	mg/kg-day	5.00E-04	mg/kg-day	7.66E-07
				Indeno(1,2,3-cd)pyrene	3.38E-01	mg/kg	1.6E-08	mg/kg-day	--	--	--
				Iron	2.04E+04	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Lead	3.69E+02	mg/kg	--	mg/kg-day	--	--	--
				Manganese	3.75E+02	mg/kg	--	mg/kg-day	2.40E-02	mg/kg-day	--
				Mercury	6.77E-01	mg/kg	5.3E-06	mg/kg-day	3.00E-04	mg/kg-day	1.77E-02
				Naphthalene	5.14E-02	mg/kg	--	mg/kg-day	2.00E-02	mg/kg-day	--
				Nickel	2.90E+01	mg/kg	2.4E-04	mg/kg-day	2.00E-02	mg/kg-day	1.20E-02
				n-Nitroso-diphenylamine	2.70E-02	mg/kg	7.6E-07	mg/kg-day	2.00E-02	mg/kg-day	3.79E-05
				Phenanthrene	1.76E+00	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Pyrene	1.90E+00	mg/kg	--	mg/kg-day	3.00E-02	mg/kg-day	--
				Silver	4.50E-01	mg/kg	--	mg/kg-day	5.00E-03	mg/kg-day	--
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.00E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Vanadium	3.19E+01	mg/kg	--	mg/kg-day	7.00E-03	mg/kg-day	--
				Zinc	2.14E+02	mg/kg	7.1E-03	mg/kg-day	3.00E-01	mg/kg-day	2.36E-02
			Exposure Route Total								**3.00E-01**
		Exposure Point Total									**3.00E-01**
	Exposure Medium Total										**4.74E+00**
	Air	Outdoor Air	Inhalation (particulates or VOCs)	2-Methylnaphthalene	2.01E-07	mg/m^3	1.3E-07	mg/kg-day	--	--	--
				4,4'-DDT	7.31E-12	mg/m^3	4.7E-12	mg/kg-day	5.00E-04	mg/kg-day	9.42E-09
				Acenaphthene	8.10E-07	mg/m^3	5.2E-07	mg/kg-day	6.00E-02	mg/kg-day	8.70E-06
				Acenaphthylene	8.66E-08	mg/m^3	5.6E-08	mg/kg-day	6.00E-02	mg/kg-day	9.30E-07
				Acetone	1.11E-05	mg/m^3	7.2E-06	mg/kg-day	9.00E-01	mg/kg-day	7.96E-06
				alpha-Chlordane	1.44E-12	mg/m^3	9.3E-13	mg/kg-day	2.00E-04	mg/kg-day	4.64E-09
				Aluminum	7.09E-06	mg/m^3	4.6E-06	mg/kg-day	1.43E-03	mg/kg-day	3.20E-03
				Anthracene	5.98E-07	mg/m^3	3.9E-07	mg/kg-day	3.00E-01	mg/kg-day	1.28E-06
				Aroclor-1260	1.52E-09	mg/m^3	9.8E-10	mg/kg-day	2.00E-05	mg/kg-day	4.90E-05
				Arsenic	5.95E-09	mg/m^3	3.8E-09	mg/kg-day	--	mg/kg-day	--
				Barium	8.29E-08	mg/m^3	5.3E-08	mg/kg-day	1.40E-04	mg/kg-day	3.82E-04
				Benzo(a)anthracene	7.98E-10	mg/m^3	5.1E-10	mg/kg-day	--	--	--
				Benzo(a)pyrene	6.50E-10	mg/m^3	4.2E-10	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	1.37E-10	mg/m^3	8.8E-11	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	1.41E-10	mg/m^3	9.1E-11	mg/kg-day	3.00E-02	mg/kg-day	3.03E-09
				Benzo(k)fluoranthene	4.38E-10	mg/m^3	2.8E-10	mg/kg-day	--	--	--
				Beryllium	8.14E-10	mg/m^3	5.2E-10	mg/kg-day	5.71E-06	mg/kg-day	9.18E-05
				Cadmium	6.25E-10	mg/m^3	4.0E-10	mg/kg-day	--	mg/kg-day	--
				Carbazole	1.21E-10	mg/m^3	7.8E-11	mg/kg-day	--	--	--
				Chlordane	1.13E-10	mg/m^3	7.3E-11	mg/kg-day	2.00E-04	mg/kg-day	3.63E-07

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-2 ft bgs) (continued)	Air (continued)	Outdoor Air (continued)	Inhalation (particulates or VOCs) (continued)	Chromium	2.41E-08	mg/m^3	1.6E-08	mg/kg-day	--	--	--
				Chrysene	1.57E-10	mg/m^3	1.0E-10	mg/kg-day	--	--	--
				Cobalt	5.50E-09	mg/m^3	3.5E-09	mg/kg-day	5.71E-06	mg/kg-day	6.21E-04
				Copper	2.81E-08	mg/m^3	1.8E-08	mg/kg-day	--	--	--
				Dibenzo(a,h)anthracene	5.37E-11	mg/m^3	3.5E-11	mg/kg-day	--	--	--
				Dibenzofuran	1.85E-06	mg/m^3	1.2E-06	mg/kg-day	2.00E-03	mg/kg-day	5.95E-04
				Diethylphthalate	1.67E-11	mg/m^3	1.1E-11	mg/kg-day	8.00E-01	mg/kg-day	1.34E-11
				di-n-Butylphthalate	9.85E-11	mg/m^3	6.3E-11	mg/kg-day	--	--	--
				Fluoranthene	3.19E-09	mg/m^3	2.1E-09	mg/kg-day	4.00E-02	mg/kg-day	5.13E-08
				Fluorene	6.01E-07	mg/m^3	3.9E-07	mg/kg-day	4.00E-02	mg/kg-day	9.68E-06
				gamma-Chlordane	1.52E-12	mg/m^3	9.8E-13	mg/kg-day	2.00E-04	mg/kg-day	4.88E-09
				Indeno(1,2,3-cd)pyrene	2.56E-10	mg/m^3	1.7E-10	mg/kg-day	--	--	--
				Iron	1.55E-05	mg/m^3	1.0E-05	mg/kg-day	--	--	--
				Lead	2.80E-07	mg/m^3	1.8E-07	mg/kg-day	--	--	--
				Manganese	2.84E-07	mg/m^3	1.8E-07	mg/kg-day	1.43E-05	mg/kg-day	1.28E-02
				Mercury	5.13E-10	mg/m^3	3.3E-10	mg/kg-day	--	mg/kg-day	--
				Naphthalene	1.19E-06	mg/m^3	7.7E-07	mg/kg-day	8.57E-04	mg/kg-day	8.98E-04
				Nickel	2.20E-08	mg/m^3	1.4E-08	mg/kg-day	5.71E-05	mg/kg-day	2.48E-04
				n-Nitroso-diphenylamine	2.05E-11	mg/m^3	1.3E-11	mg/kg-day	2.00E-02	mg/kg-day	6.59E-10
				Phenanthrene	1.18E-06	mg/m^3	7.6E-07	mg/kg-day	3.00E-01	mg/kg-day	2.53E-06
				Pyrene	5.00E-07	mg/m^3	3.2E-07	mg/kg-day	3.00E-02	mg/kg-day	1.07E-05
				Silver	3.41E-10	mg/m^3	2.2E-10	mg/kg-day	--	--	--
				Thallium	3.48E-09	mg/m^3	2.2E-09	mg/kg-day	--	--	--
				Titanium	3.03E-07	mg/m^3	2.0E-07	mg/kg-day	8.60E-03	mg/kg-day	2.27E-05
				Vanadium	2.42E-08	mg/m^3	1.6E-08	mg/kg-day	--	--	--
				Zinc	1.62E-07	mg/m^3	1.0E-07	mg/kg-day	--	mg/kg-day	--
			Exposure Route Total								**1.90E-02**
		Exposure Point Total									**1.90E-02**
	Exposure Medium Total										**1.90E-02**
Medium Total											**4.76E+00**
Groundwater	Groundwater	Domestic Use of Groundwater	Ingestion	1,1,1-Trichloroethane	2.23E-02	mg/L	1.43E-03	mg/kg-day	2.80E-01	mg/kg-day	5.09E-03
				1,1,2-Trichloroethane	1.06E-02	mg/L	6.76E-04	mg/kg-day	4.00E-03	mg/kg-day	1.69E-01
				1,1-Dichlorethane	1.08E-01	mg/L	6.92E-03	mg/kg-day	1.00E-01	mg/kg-day	6.92E-02
				1,1-Dichlorethene	5.89E-01	mg/L	3.76E-02	mg/kg-day	5.00E-02	mg/kg-day	7.53E-01
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	7.23E-04	mg/kg-day	5.00E-02	mg/kg-day	1.45E-02
				1,2-Dichlorobenzene	1.34E-02	mg/L	8.55E-04	mg/kg-day	9.00E-02	mg/kg-day	9.50E-03
				1,2-Dichlorethane	1.25E-02	mg/L	7.98E-04	mg/kg-day	2.00E-02	mg/kg-day	3.99E-02
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	1.88E-02	mg/kg-day	1.00E-02	mg/kg-day	1.88E+00
				1,2-Dichloropropane	1.00E-04	mg/L	6.39E-06	mg/kg-day	1.10E-03	mg/kg-day	5.81E-03
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	6.79E-04	mg/kg-day	5.00E-02	mg/kg-day	1.36E-02
				1,3-Dichlorobenzene	4.50E-03	mg/L	2.88E-04	mg/kg-day	9.00E-04	mg/kg-day	3.20E-01

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Ingestion (continued)	1,4-Dichlorobenzene	6.42E-03	mg/L	4.10E-04	mg/kg-day	3.00E-02	mg/kg-day	1.37E-02
				2-Butanone	7.10E-02	mg/L	4.54E-03	mg/kg-day	6.00E-01	mg/kg-day	7.56E-03
				2-Hexanone	2.00E-03	mg/L	1.28E-04	mg/kg-day	8.00E-02	mg/kg-day	1.60E-03
				2-Methylnaphthalene	7.00E-04	mg/L	4.47E-05	mg/kg-day	4.00E-03	mg/kg-day	1.12E-02
				4-Methyl-2-pentanone	2.90E-02	mg/L	1.85E-03	mg/kg-day	8.00E-02	mg/kg-day	2.32E-02
				Acenaphthene	2.00E-03	mg/L	1.28E-04	mg/kg-day	6.00E-02	mg/kg-day	2.13E-03
				Acenaphthylene	2.00E-03	mg/L	1.28E-04	mg/kg-day	6.00E-02	mg/kg-day	2.13E-03
				Acetone	1.65E+00	mg/L	1.06E-01	mg/kg-day	9.00E-01	mg/kg-day	1.17E-01
				Aluminum	9.88E-01	mg/L	6.31E-02	mg/kg-day	1.00E+00	mg/kg-day	6.31E-02
				Antimony	1.43E-02	mg/L	9.13E-04	mg/kg-day	4.00E-04	mg/kg-day	2.28E+00
				Arsenic	1.98E-02	mg/L	1.27E-03	mg/kg-day	3.00E-04	mg/kg-day	4.22E+00
				Barium	2.70E-01	mg/L	1.72E-02	mg/kg-day	7.00E-02	mg/kg-day	2.46E-01
				Benzene	1.59E-02	mg/L	1.02E-03	mg/kg-day	4.00E-03	mg/kg-day	2.54E-01
				Benzo(a)anthracene	1.00E-04	mg/L	6.39E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.00E-04	mg/L	6.39E-06	mg/kg-day	--	--	--
				Beryllium	1.41E-03	mg/L	9.03E-05	mg/kg-day	2.00E-03	mg/kg-day	4.52E-02
				bis(2-ethylhexyl)phthalate	7.09E-03	mg/L	4.54E-04	mg/kg-day	2.00E-02	mg/kg-day	2.27E-02
				Bromodichloromethane	7.10E-03	mg/L	4.54E-04	mg/kg-day	2.00E-02	mg/kg-day	2.27E-02
				Cadmium	1.60E-02	mg/L	1.02E-03	mg/kg-day	5.00E-04	mg/kg-day	2.05E+00
				Carbon disulfide	7.53E-03	mg/L	4.81E-04	mg/kg-day	1.00E-01	mg/kg-day	4.81E-03
				Chlorobenzene	6.07E-03	mg/L	3.88E-04	mg/kg-day	2.00E-02	mg/kg-day	1.94E-02
				Chloroethane	1.23E-02	mg/L	7.89E-04	mg/kg-day	4.00E-01	mg/kg-day	1.97E-03
				Chloroform	7.44E-03	mg/L	4.76E-04	mg/kg-day	1.00E-02	mg/kg-day	4.76E-02
				Chloromethane	7.26E-03	mg/L	4.64E-04	mg/kg-day	2.60E-02	mg/kg-day	1.78E-02
				Chromium	1.52E-01	mg/L	9.71E-03	mg/kg-day	1.50E+00	mg/kg-day	6.48E-03
				Chromium (VI)	4.72E-01	mg/L	3.02E-02	mg/kg-day	3.00E-03	mg/kg-day	1.01E+01
				cis-1,2-Dichloroethene	5.55E-02	mg/L	3.55E-03	mg/kg-day	1.00E-02	mg/kg-day	3.55E-01
				Cobalt	1.51E-02	mg/L	9.66E-04	mg/kg-day	2.00E-02	mg/kg-day	4.83E-02
				Copper	1.24E-02	mg/L	7.92E-04	mg/kg-day	4.00E-02	mg/kg-day	1.98E-02
				Cyanide	6.60E-02	mg/L	4.22E-03	mg/kg-day	2.00E-02	mg/kg-day	2.11E-01
				Ethylbenzene	7.18E-03	mg/L	4.59E-04	mg/kg-day	1.00E-01	mg/kg-day	4.59E-03
				Fluoranthene	1.80E-03	mg/L	1.15E-04	mg/kg-day	4.00E-02	mg/kg-day	2.88E-03
				Fluorene	1.00E-03	mg/L	6.39E-05	mg/kg-day	4.00E-02	mg/kg-day	1.60E-03
				Hexachlorobutadiene	4.00E-04	mg/L	2.56E-05	mg/kg-day	3.00E-04	mg/kg-day	8.52E-02
				Iron	1.70E+01	mg/L	1.09E+00	mg/kg-day	3.00E-01	mg/kg-day	3.62E+00
				Isopropylbenzene	5.50E-03	mg/L	3.52E-04	mg/kg-day	1.00E-01	mg/kg-day	3.52E-03
				Lead	7.38E-03	mg/L	4.72E-04	mg/kg-day	--	--	--
				m,p-Xylene	1.32E-02	mg/L	8.46E-04	mg/kg-day	2.00E-01	mg/kg-day	4.23E-03
				Manganese	9.91E+00	mg/L	6.33E-01	mg/kg-day	2.40E-02	mg/kg-day	2.64E+01
				Mercury	4.40E-05	mg/L	2.81E-06	mg/kg-day	3.00E-04	mg/kg-day	9.38E-03
				Methylene chloride	9.90E-03	mg/L	6.33E-04	mg/kg-day	6.00E-02	mg/kg-day	1.06E-02

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Ingestion (continued)	Methyl-T-Butyl-Ether	6.97E-03	mg/L	4.46E-04	mg/kg-day	8.60E-01	mg/kg-day	5.18E-04
				Molybdenum	7.50E-02	mg/L	4.79E-03	mg/kg-day	5.00E-03	mg/kg-day	9.59E-01
				Naphthalene	3.35E-02	mg/L	2.14E-03	mg/kg-day	2.00E-02	mg/kg-day	1.07E-01
				n-Butylbenzene	2.40E-03	mg/L	1.53E-04	mg/kg-day	4.00E-02	mg/kg-day	3.84E-03
				Nickel	1.83E-01	mg/L	1.17E-02	mg/kg-day	2.00E-02	mg/kg-day	5.84E-01
				n-Propylbenzene	1.22E-02	mg/L	7.82E-04	mg/kg-day	--	mg/kg-day	--
				o-Xylene	6.86E-03	mg/L	4.39E-04	mg/kg-day	2.00E-01	mg/kg-day	2.19E-03
				Phenanthrene	2.00E-03	mg/L	1.28E-04	mg/kg-day	3.00E-01	mg/kg-day	4.26E-04
				Phenol	6.60E-03	mg/L	4.22E-04	mg/kg-day	3.00E-01	mg/kg-day	1.41E-03
				p-Isopropyltoluene	8.00E-04	mg/L	5.11E-05	mg/kg-day	--	mg/kg-day	--
				Pyrene	3.00E-03	mg/L	1.92E-04	mg/kg-day	3.00E-02	mg/kg-day	6.39E-03
				sec-Butylbenzene	5.00E-04	mg/L	3.20E-05	mg/kg-day	4.00E-02	mg/kg-day	7.99E-04
				Selenium	1.08E-02	mg/L	6.91E-04	mg/kg-day	5.00E-03	mg/kg-day	1.38E-01
				Silver	5.48E-03	mg/L	3.50E-04	mg/kg-day	5.00E-03	mg/kg-day	7.00E-02
				Tert-Butanol	4.21E-01	mg/L	2.69E-02	mg/kg-day	--	mg/kg-day	--
				tert-Butylbenzene	3.00E-04	mg/L	1.92E-05	mg/kg-day	4.00E-02	mg/kg-day	4.79E-04
				Tetrachloroethene	5.84E-03	mg/L	3.74E-04	mg/kg-day	1.00E-02	mg/kg-day	3.74E-02
				Thallium	8.12E-03	mg/L	5.19E-04	mg/kg-day	6.60E-05	mg/kg-day	7.86E+00
				Toluene	6.35E-03	mg/L	4.06E-04	mg/kg-day	2.00E-01	mg/kg-day	2.03E-03
				trans-1,2-Dichloroethene	1.16E-02	mg/L	7.42E-04	mg/kg-day	2.00E-02	mg/kg-day	3.71E-02
				Trichloroethene	1.00E+00	mg/L	6.39E-02	mg/kg-day	3.00E-04	mg/kg-day	2.13E+02
				Vanadium	2.85E-02	mg/L	1.83E-03	mg/kg-day	7.00E-03	mg/kg-day	2.61E-01
				Vinyl chloride	2.54E-02	mg/L	1.62E-03	mg/kg-day	3.00E-03	mg/kg-day	5.41E-01
				Xylene (Total)	1.75E-02	mg/L	1.12E-03	mg/kg-day	2.00E-01	mg/kg-day	5.59E-03
				Zinc	1.50E-01	mg/L	9.57E-03	mg/kg-day	3.00E-01	mg/kg-day	3.19E-02
			Exposure Route Total								**2.77E+02**
			Dermal (bathing/ showering)	1,1,1-Trichloroethane	2.23E-02	mg/L	1.61E-04	mg/kg-day	2.80E-01	mg/kg-day	5.75E-04
				1,1,2-Trichloroethane	1.06E-02	mg/L	2.87E-05	mg/kg-day	4.00E-03	mg/kg-day	7.17E-03
				1,1-Dichlorethane	1.08E-01	mg/L	4.04E-04	mg/kg-day	1.00E-01	mg/kg-day	4.04E-03
				1,1-Dichlorethene	5.89E-01	mg/L	3.95E-03	mg/kg-day	5.00E-02	mg/kg-day	7.90E-02
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	4.51E-04	mg/kg-day	5.00E-02	mg/kg-day	9.01E-03
				1,2-Dichlorobenzene	1.34E-02	mg/L	3.72E-04	mg/kg-day	9.00E-02	mg/kg-day	4.13E-03
				1,2-Dichlorethane	1.25E-02	mg/L	2.81E-05	mg/kg-day	2.00E-02	mg/kg-day	1.41E-03
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	1.85E-03	mg/kg-day	1.00E-02	mg/kg-day	1.85E-01
				1,2-Dichloropropane	1.00E-04	mg/L	4.19E-07	mg/kg-day	1.10E-03	mg/kg-day	3.80E-04
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	4.23E-04	mg/kg-day	5.00E-02	mg/kg-day	8.46E-03
				1,3-Dichlorobenzene	4.50E-03	mg/L	1.47E-04	mg/kg-day	9.00E-04	mg/kg-day	1.63E-01
				1,4-Dichlorobenzene	6.42E-03	mg/L	1.68E-04	mg/kg-day	3.00E-02	mg/kg-day	5.60E-03
				2-Butanone	7.10E-02	mg/L	3.33E-05	mg/kg-day	6.00E-01	mg/kg-day	5.54E-05
				2-Hexanone	2.00E-03	mg/L	3.76E-06	mg/kg-day	8.00E-02	mg/kg-day	4.69E-05
				2-Methylnaphthalene	7.00E-04	mg/L	4.19E-05	mg/kg-day	4.00E-03	mg/kg-day	1.05E-02

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Dermal (bathing/ showering) (continued)	4-Methyl-2-pentanone	2.90E-02	mg/L	4.86E-05	mg/kg-day	8.00E-02	mg/kg-day	6.07E-04
				Acenaphthene	2.00E-03	mg/L	1.12E-04	mg/kg-day	6.00E-02	mg/kg-day	1.87E-03
				Acenaphthylene	2.00E-03	mg/L	1.19E-04	mg/kg-day	6.00E-02	mg/kg-day	1.98E-03
				Acetone	1.65E+00	mg/L	3.97E-04	mg/kg-day	9.00E-01	mg/kg-day	4.41E-04
				Aluminum	9.88E-01	mg/L	8.92E-04	mg/kg-day	1.00E+00	mg/kg-day	8.92E-04
				Antimony	1.43E-02	mg/L	6.57E-06	mg/kg-day	4.00E-04	mg/kg-day	1.64E-02
				Arsenic	1.98E-02	mg/L	1.61E-05	mg/kg-day	3.00E-04	mg/kg-day	5.38E-02
				Barium	2.70E-01	mg/L	4.58E-05	mg/kg-day	4.90E-03	mg/kg-day	9.36E-03
				Benzene	1.59E-02	mg/L	1.39E-04	mg/kg-day	4.00E-03	mg/kg-day	3.47E-02
				Benzo(a)anthracene	1.00E-04	mg/L	4.00E-05	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.00E-04	mg/L	5.23E-05	mg/kg-day	--	--	--
				Beryllium	1.41E-03	mg/L	3.94E-07	mg/kg-day	1.40E-05	mg/kg-day	2.81E-02
				bis(2-ethylhexyl)phthalate	7.09E-03	mg/L	5.90E-03	mg/kg-day	2.00E-02	mg/kg-day	2.95E-01
				Bromodichloromethane	7.10E-03	mg/L	1.50E-05	mg/kg-day	2.00E-02	mg/kg-day	7.52E-04
				Cadmium	1.60E-02	mg/L	2.37E-06	mg/kg-day	5.00E-04	mg/kg-day	4.73E-03
				Carbon disulfide	7.53E-03	mg/L	4.95E-05	mg/kg-day	1.00E-01	mg/kg-day	4.95E-04
				Chlorobenzene	6.07E-03	mg/L	1.04E-04	mg/kg-day	2.00E-02	mg/kg-day	5.22E-03
				Chloroethane	1.23E-02	mg/L	4.16E-05	mg/kg-day	4.00E-01	mg/kg-day	1.04E-04
				Chloroform	7.44E-03	mg/L	2.80E-05	mg/kg-day	1.00E-02	mg/kg-day	2.80E-03
				Chloromethane	7.26E-03	mg/L	1.27E-05	mg/kg-day	2.60E-02	mg/kg-day	4.89E-04
				Chromium	1.52E-01	mg/L	6.41E-05	mg/kg-day	1.50E+00	mg/kg-day	4.27E-05
				Chromium (VI)	4.72E-01	mg/L	1.99E-04	mg/kg-day	3.00E-03	mg/kg-day	6.64E-02
				cis-1,2-Dichloroethene	5.55E-02	mg/L	3.49E-04	mg/kg-day	1.00E-02	mg/kg-day	3.49E-02
				Cobalt	1.51E-02	mg/L	7.72E-06	mg/kg-day	2.00E-02	mg/kg-day	3.86E-04
				Copper	1.24E-02	mg/L	1.60E-06	mg/kg-day	4.00E-02	mg/kg-day	4.01E-05
				Cyanide	6.60E-02	mg/L	2.41E-05	mg/kg-day	2.00E-02	mg/kg-day	1.21E-03
				Ethylbenzene	7.18E-03	mg/L	2.24E-04	mg/kg-day	1.00E-01	mg/kg-day	2.24E-03
				Fluoranthene	1.80E-03	mg/L	3.90E-04	mg/kg-day	4.00E-02	mg/kg-day	9.74E-03
				Fluorene	1.00E-03	mg/L	7.21E-05	mg/kg-day	4.00E-02	mg/kg-day	1.80E-03
				Hexachlorobutadiene	4.00E-04	mg/L	2.04E-05	mg/kg-day	3.00E-04	mg/kg-day	6.81E-02
				Iron	1.70E+01	mg/L	1.77E-03	mg/kg-day	3.00E-01	mg/kg-day	5.90E-03
				Isopropylbenzene	5.50E-03	mg/L	3.25E-04	mg/kg-day	1.00E-01	mg/kg-day	3.25E-03
				Lead	7.38E-03	mg/L	1.06E-06	mg/kg-day	--	--	--
				m,p-Xylene	1.32E-02	mg/L	4.48E-04	mg/kg-day	2.00E-01	mg/kg-day	2.24E-03
				Manganese	9.91E+00	mg/L	5.35E-03	mg/kg-day	2.40E-02	mg/kg-day	2.23E-01
				Mercury	4.40E-05	mg/L	1.86E-08	mg/kg-day	2.10E-05	mg/kg-day	8.84E-04
				Methylene chloride	9.90E-03	mg/L	1.86E-05	mg/kg-day	6.00E-02	mg/kg-day	3.11E-04
				Methyl-T-Butyl-Ether	6.97E-03	mg/L	7.56E-06	mg/kg-day	8.60E-01	mg/kg-day	8.79E-06
				Molybdenum	7.50E-02	mg/L	2.28E-05	mg/kg-day	5.00E-03	mg/kg-day	4.56E-03
				Naphthalene	3.35E-02	mg/L	9.81E-04	mg/kg-day	2.00E-02	mg/kg-day	4.90E-02
				n-Butylbenzene	2.40E-03	mg/L	1.42E-04	mg/kg-day	4.00E-02	mg/kg-day	3.54E-03

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Dermal (bathing/ showering) (continued)	Nickel	1.83E-01	mg/L	2.54E-05	mg/kg-day	8.00E-04	mg/kg-day	3.17E-02
				n-Propylbenzene	1.22E-02	mg/L	7.22E-04	mg/kg-day	--	mg/kg-day	--
				o-Xylene	6.86E-03	mg/L	2.04E-04	mg/kg-day	2.00E-01	mg/kg-day	1.02E-03
				Phenanthrene	2.00E-03	mg/L	1.93E-04	mg/kg-day	3.00E-01	mg/kg-day	6.44E-04
				Phenol	6.60E-03	mg/L	1.54E-05	mg/kg-day	3.00E-01	mg/kg-day	5.13E-05
				p-Isopropyltoluene	8.00E-04	mg/L	4.73E-05	mg/kg-day	--	mg/kg-day	--
				Pyrene	3.00E-03	mg/L	4.10E-04	mg/kg-day	3.00E-02	mg/kg-day	1.37E-02
				sec-Butylbenzene	5.00E-04	mg/L	2.95E-05	mg/kg-day	--	mg/kg-day	--
				Selenium	1.08E-02	mg/L	4.12E-06	mg/kg-day	1.50E-03	mg/kg-day	2.74E-03
				Silver	5.48E-03	mg/L	1.41E-06	mg/kg-day	2.00E-04	mg/kg-day	7.04E-03
				Tert-Butanol	4.21E-01	mg/L	3.37E-04	mg/kg-day	--	mg/kg-day	--
				tert-Butylbenzene	3.00E-04	mg/L	1.77E-05	mg/kg-day	4.00E-02	mg/kg-day	4.43E-04
				Tetrachloroethene	5.84E-03	mg/L	1.19E-04	mg/kg-day	1.00E-02	mg/kg-day	1.19E-02
				Thallium	8.12E-03	mg/L	3.42E-06	mg/kg-day	6.60E-05	mg/kg-day	5.19E-02
				Toluene	6.35E-03	mg/L	1.21E-04	mg/kg-day	2.00E-01	mg/kg-day	6.07E-04
				trans-1,2-Dichloroethene	1.16E-02	mg/L	2.36E-04	mg/kg-day	2.00E-02	mg/kg-day	1.18E-02
				Trichloroethene	1.00E+00	mg/L	6.63E-03	mg/kg-day	3.00E-04	mg/kg-day	2.21E+01
				Vanadium	2.85E-02	mg/L	1.63E-05	mg/kg-day	1.82E-04	mg/kg-day	8.93E-02
				Vinyl chloride	2.54E-02	mg/L	1.21E-04	mg/kg-day	3.00E-03	mg/kg-day	4.03E-02
				Xylene (Total)	1.75E-02	mg/L	5.92E-04	mg/kg-day	2.00E-01	mg/kg-day	2.96E-03
				Zinc	1.50E-01	mg/L	2.16E-05	mg/kg-day	3.00E-01	mg/kg-day	7.20E-05
			Exposure Route Total								**2.38E+01**
		Exposure Point Total									**3.01E+02**
	Exposure Medium Total										**3.01E+02**
	Air	Domestic Use of Groundwater Indoors	Inhalation (bathing/ showering)	1,1,1-Trichloroethane	2.23E-02	mg/L	3.00E-04	mg/kg-day	6.30E-01	mg/kg-day	4.75E-04
				1,1,2-Trichloroethane	1.06E-02	mg/L	1.42E-04	mg/kg-day	4.00E-03	mg/kg-day	3.55E-02
				1,1-Dichlorethane	1.08E-01	mg/L	1.45E-03	mg/kg-day	1.40E-01	mg/kg-day	1.04E-02
				1,1-Dichlorethene	5.89E-01	mg/L	7.91E-03	mg/kg-day	5.71E-02	mg/kg-day	1.38E-01
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	1.52E-04	mg/kg-day	1.70E-03	mg/kg-day	8.93E-02
				1,2-Dichlorobenzene	1.34E-02	mg/L	1.79E-04	mg/kg-day	5.70E-02	mg/kg-day	3.15E-03
				1,2-Dichlorethane	1.25E-02	mg/L	1.68E-04	mg/kg-day	6.86E-01	mg/kg-day	2.44E-04
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	3.94E-03	mg/kg-day	1.00E-02	mg/kg-day	3.94E-01
				1,2-Dichloropropane	1.00E-04	mg/L	1.34E-06	mg/kg-day	1.10E-03	mg/kg-day	1.22E-03
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	1.43E-04	mg/kg-day	1.70E-03	mg/kg-day	8.39E-02
				1,3-Dichlorobenzene	4.50E-03	mg/L	6.04E-05	mg/kg-day	3.00E-02	mg/kg-day	2.01E-03
				1,4-Dichlorobenzene	6.42E-03	mg/L	8.62E-05	mg/kg-day	2.29E-01	mg/kg-day	3.77E-04
				2-Butanone	7.10E-02	mg/L	9.53E-04	mg/kg-day	1.43E+00	mg/kg-day	6.67E-04
				2-Hexanone	2.00E-03	mg/L	2.68E-05	mg/kg-day	8.60E-01	mg/kg-day	3.12E-05
				2-MethylNaphthalene	7.00E-04	mg/L	9.40E-06	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	2.90E-02	mg/L	3.89E-04	mg/kg-day	8.60E-01	mg/kg-day	4.53E-04
				Acenaphthene	2.00E-03	mg/L	2.68E-05	mg/kg-day	6.00E-02	mg/kg-day	4.47E-04

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air (continued)	Domestic Use of Groundwater Indoors (continued)	Inhalation (bathing/ showering) (continued)	Acenaphthylene	2.00E-03	mg/L	2.68E-05	mg/kg-day	6.00E-02	mg/kg-day	4.47E-04
				Acetone	1.65E+00	mg/L	2.22E-02	mg/kg-day	9.00E-01	mg/kg-day	2.47E-02
				Benzene	1.59E-02	mg/L	2.13E-04	mg/kg-day	8.57E-03	mg/kg-day	2.49E-02
				Bromodichloromethane	7.10E-03	mg/L	9.53E-05	mg/kg-day	2.00E-02	mg/kg-day	4.77E-03
				Carbon disulfide	7.53E-03	mg/L	1.01E-04	mg/kg-day	2.00E-01	mg/kg-day	5.05E-04
				Chlorobenzene	6.07E-03	mg/L	8.15E-05	mg/kg-day	1.71E-02	mg/kg-day	4.76E-03
				Chloroethane	1.23E-02	mg/L	1.66E-04	mg/kg-day	2.90E+00	mg/kg-day	5.72E-05
				Chloroform	7.44E-03	mg/L	9.99E-05	mg/kg-day	1.40E-04	mg/kg-day	7.14E-01
				Chloromethane	7.26E-03	mg/L	9.75E-05	mg/kg-day	2.57E-02	mg/kg-day	3.79E-03
				cis-1,2-Dichloroethene	5.55E-02	mg/L	7.45E-04	mg/kg-day	1.00E-02	mg/kg-day	7.45E-02
				Cyanide	6.60E-02	mg/L	8.86E-04	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	7.18E-03	mg/L	9.65E-05	mg/kg-day	2.86E-01	mg/kg-day	3.38E-04
				Fluorene	1.00E-03	mg/L	1.34E-05	mg/kg-day	4.00E-02	mg/kg-day	3.36E-04
				Hexachlorobutadiene	4.00E-04	mg/L	5.37E-06	mg/kg-day	3.00E-04	mg/kg-day	1.79E-02
				Isopropylbenzene	5.50E-03	mg/L	7.38E-05	mg/kg-day	1.10E-01	mg/kg-day	6.71E-04
				m,p-Xylene	1.32E-02	mg/L	1.78E-04	mg/kg-day	2.86E-02	mg/kg-day	6.22E-03
				Methylene Chloride	9.90E-03	mg/L	1.33E-04	mg/kg-day	8.57E-01	mg/kg-day	1.55E-04
				Methyl-T-Butyl-ether	6.97E-03	mg/L	9.36E-05	mg/kg-day	8.57E-01	mg/kg-day	1.09E-04
				Naphthalene	3.35E-02	mg/L	4.50E-04	mg/kg-day	8.57E-04	mg/kg-day	5.24E-01
				n-Butylbenzene	2.40E-03	mg/L	3.22E-05	mg/kg-day	1.14E-02	mg/kg-day	2.82E-03
				n-propylbenzene	1.22E-02	mg/L	1.64E-04	mg/kg-day	4.00E-02	mg/kg-day	4.10E-03
				o-Xylene	6.86E-03	mg/L	9.21E-05	mg/kg-day	2.86E-02	mg/kg-day	3.22E-03
				Phenanthrene	2.00E-03	mg/L	2.68E-05	mg/kg-day	3.00E-01	mg/kg-day	8.95E-05
				Pyrene	3.00E-03	mg/L	4.03E-05	mg/kg-day	3.00E-02	mg/kg-day	1.34E-03
				sec-Butylbenzene	5.00E-04	mg/L	6.71E-06	mg/kg-day	1.14E-02	mg/kg-day	5.87E-04
				tert-Butylbenzene	3.00E-04	mg/L	4.03E-06	mg/kg-day	1.14E-02	mg/kg-day	3.52E-04
				trans-1,2-Dichloroethene	1.16E-02	mg/L	1.56E-04	mg/kg-day	2.00E-02	mg/kg-day	7.79E-03
				Tetrachloroethene	5.84E-03	mg/L	7.85E-05	mg/kg-day	1.71E-01	mg/kg-day	4.58E-04
				Toluene	6.35E-03	mg/L	8.52E-05	mg/kg-day	1.14E-01	mg/kg-day	7.46E-04
				Trichloroethene	1.00E+00	mg/L	1.34E-02	mg/kg-day	1.00E-02	mg/kg-day	1.34E+00
				Vinyl chloride	2.54E-02	mg/L	3.41E-04	mg/kg-day	2.86E-02	mg/kg-day	1.19E-02
				Xylene (Total)	1.75E-02	mg/L	2.35E-04	mg/kg-day	2.86E-02	mg/kg-day	8.22E-03
			Exposure Route Total								**3.55E+00**
		Exposure Point Total									**3.55E+00**
		Indoor Air	Inhalation (Vapor Intrusion)	1,1,1-Trichloroethane	2.01E-03	mg/m^3	1.30E-03	mg/kg-day	6.30E-01	mg/kg-day	2.06E-03
				1,1,2-Trichloroethane	4.59E-05	mg/m^3	2.95E-05	mg/kg-day	4.00E-03	mg/kg-day	7.39E-03
				1,1-Dichlorethane	3.16E-03	mg/m^3	2.04E-03	mg/kg-day	1.40E-01	mg/kg-day	1.45E-02
				1,1-Dichlorethene	9.92E-02	mg/m^3	6.39E-02	mg/kg-day	5.71E-02	mg/kg-day	1.12E+00
				1,2,4-Trimethylbenzene	2.33E-04	mg/m^3	1.50E-04	mg/kg-day	1.70E-03	mg/kg-day	8.85E-02
				1,2-Dichlorobenzene	9.49E-05	mg/m^3	6.12E-05	mg/kg-day	5.70E-02	mg/kg-day	1.07E-03
				1,2-Dichlorethane	7.70E-05	mg/m^3	4.96E-05	mg/kg-day	6.86E-01	mg/kg-day	7.24E-05

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air (continued)	Indoor Air (continued)	Inhalation (Vapor Intrusion) (continued)	1,2-Dichlorethene (Total)	6.08E-03	mg/m^3	3.92E-03	mg/kg-day	1.00E-02	mg/kg-day	3.92E-01
				1,2-Dichloropropane	1.41E-06	mg/m^3	9.06E-07	mg/kg-day	1.10E-03	mg/kg-day	8.24E-04
				1,3,5-Trimethylbenzene	2.08E-04	mg/m^3	1.34E-04	mg/kg-day	1.70E-03	mg/kg-day	7.90E-02
				1,3-Dichlorobenzene	5.39E-05	mg/m^3	3.47E-05	mg/kg-day	3.00E-02	mg/kg-day	1.16E-03
				1,4-Dichlorobenzene	5.92E-05	mg/m^3	3.81E-05	mg/kg-day	2.29E-01	mg/kg-day	1.67E-04
				2-Butanone	2.35E-05	mg/m^3	1.52E-05	mg/kg-day	1.43E+00	mg/kg-day	1.06E-05
				2-Hexanone	1.31E-06	mg/m^3	8.46E-07	mg/kg-day	8.60E-01	mg/kg-day	9.83E-07
				2-MethylNaphthalene	8.28E-07	mg/m^3	5.33E-07	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	1.90E-05	mg/m^3	1.23E-05	mg/kg-day	8.60E-01	mg/kg-day	1.43E-05
				Acenaphthene	6.52E-07	mg/m^3	4.20E-07	mg/kg-day	6.00E-02	mg/kg-day	7.00E-06
				Acenaphthylene	6.52E-07	mg/m^3	4.20E-07	mg/kg-day	6.00E-02	mg/kg-day	7.00E-06
				Acetone	5.45E-04	mg/m^3	3.51E-04	mg/kg-day	9.00E-01	mg/kg-day	3.90E-04
				Benzene	5.01E-04	mg/m^3	3.23E-04	mg/kg-day	8.57E-03	mg/kg-day	3.77E-02
				Bromodichloromethane	2.55E-05	mg/m^3	1.65E-05	mg/kg-day	2.00E-02	mg/kg-day	8.23E-04
				Carbon disulfide	1.61E-03	mg/m^3	1.04E-03	mg/kg-day	2.00E-01	mg/kg-day	5.18E-03
				Chlorobenzene	9.89E-05	mg/m^3	6.37E-05	mg/kg-day	1.71E-02	mg/kg-day	3.72E-03
				Chloroethane	1.47E-03	mg/m^3	9.46E-04	mg/kg-day	2.90E+00	mg/kg-day	3.26E-04
				Chloroform	1.82E-04	mg/m^3	1.17E-04	mg/kg-day	1.40E-04	mg/kg-day	8.39E-01
				Chloromethane	5.88E-04	mg/m^3	3.79E-04	mg/kg-day	2.57E-02	mg/kg-day	1.47E-02
				cis-1,2-Dichloroethene	1.15E-03	mg/m^3	7.41E-04	mg/kg-day	1.00E-02	mg/kg-day	7.41E-02
				Cyanide	9.60E-05	mg/m^3	6.18E-05	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	2.48E-04	mg/m^3	1.60E-04	mg/kg-day	2.86E-01	mg/kg-day	5.60E-04
				Fluorene	1.34E-07	mg/m^3	8.64E-08	mg/kg-day	4.00E-02	mg/kg-day	2.16E-06
				Hexachlorobutadiene	9.57E-06	mg/m^3	6.17E-06	mg/kg-day	3.00E-04	mg/kg-day	2.06E-02
				Isopropylbenzene	2.12E-02	mg/m^3	1.37E-02	mg/kg-day	1.10E-01	mg/kg-day	1.24E-01
				m,p-Xylene	4.52E-04	mg/m^3	2.91E-04	mg/kg-day	2.86E-02	mg/kg-day	1.02E-02
				Methylene Chloride	1.47E-04	mg/m^3	9.46E-05	mg/kg-day	8.57E-01	mg/kg-day	1.10E-04
				Methyl-T-Butyl-ether	2.95E-05	mg/m^3	1.90E-05	mg/kg-day	8.57E-01	mg/kg-day	2.22E-05
				Naphthalene	5.03E-05	mg/m^3	3.24E-05	mg/kg-day	8.57E-04	mg/kg-day	3.78E-02
				n-Butylbenzene	9.94E-05	mg/m^3	6.41E-05	mg/kg-day	1.14E-02	mg/kg-day	5.61E-03
				n-propylbenzene	4.44E-04	mg/m^3	2.86E-04	mg/kg-day	4.00E-02	mg/kg-day	7.15E-03
				o-Xylene	1.73E-04	mg/m^3	1.11E-04	mg/kg-day	2.86E-02	mg/kg-day	3.90E-03
				Phenanthrene	1.75E-07	mg/m^3	1.13E-07	mg/kg-day	3.00E-01	mg/kg-day	3.77E-07
				Pyrene	6.77E-08	mg/m^3	4.36E-08	mg/kg-day	3.00E-02	mg/kg-day	1.45E-06
				sec-Butylbenzene	5.50E-08	mg/m^3	3.54E-08	mg/kg-day	1.14E-02	mg/kg-day	3.10E-06
				tert-Butylbenzene	1.30E-05	mg/m^3	8.37E-06	mg/kg-day	1.14E-02	mg/kg-day	7.32E-04
				trans-1,2-Dichloroethene	9.43E-04	mg/m^3	6.08E-04	mg/kg-day	2.00E-02	mg/kg-day	3.04E-02
				Tetrachloroethene	4.75E-04	mg/m^3	3.06E-04	mg/kg-day	1.71E-01	mg/kg-day	1.78E-03
				Toluene	2.22E-04	mg/m^3	1.43E-04	mg/kg-day	1.14E-01	mg/kg-day	1.25E-03
				Trichloroethene	5.23E-02	mg/m^3	3.37E-02	mg/kg-day	1.00E-02	mg/kg-day	3.37E+00

TABLE F-7.1.4.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air (continued)	Indoor Air (continued)	Inhalation (continued)	Vinyl chloride	5.47E-03	mg/m^3	3.52E-03	mg/kg-day	2.86E-02	mg/kg-day	1.23E-01
				Xylene (Total)	5.96E-04	mg/m^3	3.84E-04	mg/kg-day	2.86E-02	mg/kg-day	1.35E-02
			Exposure Route Total								**6.43E+00**
		Exposure Point Total									**6.43E+00**
	Exposure Medium Total										**9.98E+00**
Medium Total											**3.11E+02**
										Total of Receptor Hazards Across All Media	**3.16E+02**

Notes:

--	Not applicable or not available
EPA	U.S. Environmental Protection Agency
EPC	Exposure point concentration
ft bgs	Feet below ground surface
mg/kg	Milligram per kilogram
mg/kg-day	Milligram per kilogram per day
mg/L	Milligram per liter
mg/m^3	Milligram per meter
RAGS	Risk Assessment Guidelines for Superfund
RfD	Reference dose
RfC	Reference concentration
RI	Remedial Investigation
RME	Reasonable maximum expsoure
VOC	Volatile Organic Compound

(a) See the Vapor Intrusion to Indoor Air Evaluation for determination of the modeled indoor air concentration.

TABLE F-7.1.5.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS
HYPOTHETICAL FUTURE REDEVELOPED INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs)	Soil	Site Soil	Ingestion	2,4-Dimethylphenol	4.30E-02	mg/kg	4.21E-08	mg/kg-day	2.00E-02	mg/kg-day	2.10E-06
				2-Butanone	2.40E-01	mg/kg	2.35E-07	mg/kg-day	6.00E-01	mg/kg-day	3.91E-07
				2-Methylnaphthalene	2.69E-01	mg/kg	2.64E-07	mg/kg-day	4.00E-03	mg/kg-day	6.59E-05
				4,4'-DDT	6.49E-03	mg/kg	6.35E-09	mg/kg-day	5.00E-04	mg/kg-day	1.27E-05
				4-Methyl-2-pentanone	4.50E-02	mg/kg	4.40E-08	mg/kg-day	8.00E-02	mg/kg-day	5.50E-07
				Acenaphthene	2.67E-01	mg/kg	2.61E-07	mg/kg-day	6.00E-02	mg/kg-day	4.36E-06
				Acenaphthylene	1.94E-02	mg/kg	1.90E-08	mg/kg-day	6.00E-02	mg/kg-day	3.17E-07
				Acetone	1.50E+00	mg/kg	1.47E-06	mg/kg-day	9.00E-01	mg/kg-day	1.63E-06
				alpha-Chlordane	1.86E-03	mg/kg	1.82E-09	mg/kg-day	5.00E-04	mg/kg-day	3.64E-06
				Aluminum	1.10E+04	mg/kg	1.08E-02	mg/kg-day	1.00E+00	mg/kg-day	1.08E-02
				Anthracene	5.40E-01	mg/kg	5.29E-07	mg/kg-day	3.00E-01	mg/kg-day	1.76E-06
				Antimony	5.00E+00	mg/kg	4.89E-06	mg/kg-day	4.00E-04	mg/kg-day	1.22E-02
				Aroclor-1260	1.01E+00	mg/kg	9.93E-07	mg/kg-day	2.00E-05	mg/kg-day	4.97E-02
				Arsenic	1.95E+01	mg/kg	1.91E-05	mg/kg-day	3.00E-04	mg/kg-day	6.37E-02
				Barium	2.06E+02	mg/kg	2.02E-04	mg/kg-day	7.00E-02	mg/kg-day	2.88E-03
				Benzene	1.87E+00	mg/kg	1.83E-06	mg/kg-day	4.00E-03	mg/kg-day	4.57E-04
				Benzo(a)anthracene	8.85E-01	mg/kg	8.66E-07	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.12E+00	mg/kg	1.10E-06	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	7.80E-01	mg/kg	7.63E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.88E-01	mg/kg	2.81E-07	mg/kg-day	3.00E-02	mg/kg-day	9.38E-06
				Benzo(k)fluoranthene	3.96E-01	mg/kg	3.88E-07	mg/kg-day	--	--	--
				Beryllium	1.90E+00	mg/kg	1.86E-06	mg/kg-day	2.00E-03	mg/kg-day	9.30E-04
				bis(2-ethylhexyl)phthalate	5.00E-02	mg/kg	4.89E-08	mg/kg-day	2.00E-02	mg/kg-day	2.45E-06
				Cadmium	1.30E+00	mg/kg	1.27E-06	mg/kg-day	5.00E-04	mg/kg-day	2.54E-03
				Carbazole	1.60E-01	mg/kg	1.57E-07	mg/kg-day	--	--	--
				Carbon disulfide	1.20E-02	mg/kg	1.17E-08	mg/kg-day	1.00E-01	mg/kg-day	1.17E-07
				Chlordane	1.49E-01	mg/kg	1.46E-07	mg/kg-day	5.00E-04	mg/kg-day	2.91E-04
				Chromium	4.50E+01	mg/kg	4.40E-05	mg/kg-day	1.50E+00	mg/kg-day	2.93E-05
				Chrysene	9.05E-01	mg/kg	8.86E-07	mg/kg-day	--	--	--
				Cobalt	7.51E+00	mg/kg	7.35E-06	mg/kg-day	2.00E-02	mg/kg-day	3.68E-04
				Copper	9.89E+01	mg/kg	9.68E-05	mg/kg-day	4.00E-02	mg/kg-day	2.42E-03
				Dibenzo(a,h)anthracene	6.74E-02	mg/kg	6.59E-08	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	1.17E-06	mg/kg-day	2.00E-03	mg/kg-day	5.87E-04
				Diethylphthalate	2.20E-02	mg/kg	2.15E-08	mg/kg-day	8.00E-01	mg/kg-day	2.69E-08
				di-n-Butylphthalate	1.30E-01	mg/kg	1.27E-07	mg/kg-day	1.00E-01	mg/kg-day	1.27E-06
				di-n-Octylphthalate	9.40E-02	mg/kg	9.20E-08	mg/kg-day	4.00E-02	mg/kg-day	2.30E-06
				Ethylbenzene	5.72E+00	mg/kg	5.60E-06	mg/kg-day	1.00E-01	mg/kg-day	5.60E-05
				Fluoranthene	3.09E+00	mg/kg	3.03E-06	mg/kg-day	4.00E-02	mg/kg-day	7.56E-05
				Fluorene	4.10E-01	mg/kg	4.01E-07	mg/kg-day	4.00E-02	mg/kg-day	1.00E-05
				gamma-BHC (Lindane)	1.90E-03	mg/kg	1.86E-09	mg/kg-day	3.00E-04	mg/kg-day	6.20E-06
				gamma-Chlordane	1.85E-03	mg/kg	1.81E-09	mg/kg-day	5.00E-04	mg/kg-day	3.61E-06
				Indeno(1,2,3-cd)pyrene	2.70E-01	mg/kg	2.64E-07	mg/kg-day	--	--	--

TABLE F-7.1.5.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Ingestion (continued)	Iron	2.48E+04	mg/kg	2.43E-02	mg/kg-day	3.00E-01	mg/kg-day	8.09E-02
				Lead	1.80E+03	mg/kg	1.76E-03	mg/kg-day	--	--	--
				m,p-Xylene	3.09E+00	mg/kg	3.03E-06	mg/kg-day	2.00E-01	mg/kg-day	1.51E-05
				Manganese	2.87E+02	mg/kg	2.81E-04	mg/kg-day	2.40E-02	mg/kg-day	1.17E-02
				Mercury	3.10E+00	mg/kg	3.03E-06	mg/kg-day	3.00E-04	mg/kg-day	1.01E-02
				Methylene chloride	9.40E-02	mg/kg	9.20E-08	mg/kg-day	6.00E-02	mg/kg-day	1.53E-06
				Methyl-T-Butyl-Ether	4.00E-03	mg/kg	3.91E-09	mg/kg-day	8.60E-01	mg/kg-day	4.55E-09
				Naphthalene	3.48E-01	mg/kg	3.40E-07	mg/kg-day	2.00E-02	mg/kg-day	1.70E-05
				Nickel	3.65E+01	mg/kg	3.57E-05	mg/kg-day	2.00E-02	mg/kg-day	1.78E-03
				n-Nitroso-diphenylamine	5.50E-01	mg/kg	5.38E-07	mg/kg-day	2.00E-02	mg/kg-day	2.69E-05
				o-Xylene	1.22E+00	mg/kg	1.19E-06	mg/kg-day	2.00E-01	mg/kg-day	5.95E-06
				Phenanthrene	2.25E+00	mg/kg	2.20E-06	mg/kg-day	3.00E-01	mg/kg-day	7.34E-06
				Pyrene	1.80E+00	mg/kg	1.76E-06	mg/kg-day	3.00E-02	mg/kg-day	5.86E-05
				Silver	2.40E+00	mg/kg	2.35E-06	mg/kg-day	5.00E-03	mg/kg-day	4.70E-04
				Thallium	4.60E+00	mg/kg	4.50E-06	mg/kg-day	6.60E-05	mg/kg-day	6.82E-02
				Titanium	4.78E+02	mg/kg	4.67E-04	mg/kg-day	4.00E+00	mg/kg-day	1.17E-04
				Toluene	2.26E+01	mg/kg	2.21E-05	mg/kg-day	2.00E-01	mg/kg-day	1.11E-04
				Vanadium	3.46E+01	mg/kg	3.38E-05	mg/kg-day	7.00E-03	mg/kg-day	4.83E-03
				Xylene (Total)	3.19E+01	mg/kg	3.12E-05	mg/kg-day	2.00E-01	mg/kg-day	1.56E-04
				Zinc	3.97E+02	mg/kg	3.89E-04	mg/kg-day	3.00E-01	mg/kg-day	1.30E-03
			Exposure Route Total								**3.27E-01**
			Dermal	2,4-Dimethylphenol	4.30E-02	mg/kg	2.8E-09	mg/kg-day	2.00E-02	mg/kg-day	1.39E-07
				2-Butanone	2.40E-01	mg/kg	1.5E-08	mg/kg-day	6.00E-01	mg/kg-day	2.58E-08
				2-Methylnaphthalene	2.69E-01	mg/kg	1.7E-08	mg/kg-day	4.00E-03	mg/kg-day	4.35E-06
				4,4'-DDT	6.49E-03	mg/kg	1.3E-09	mg/kg-day	5.00E-04	mg/kg-day	2.51E-06
				4-Methyl-2-pentanone	4.50E-02	mg/kg	2.9E-09	mg/kg-day	8.00E-02	mg/kg-day	3.63E-08
				Acenaphthene	2.67E-01	mg/kg	2.2E-07	mg/kg-day	6.00E-02	mg/kg-day	3.74E-06
				Acenaphthylene	1.94E-02	mg/kg	1.3E-09	mg/kg-day	6.00E-02	mg/kg-day	2.09E-08
				Acetone	1.50E+00	mg/kg	9.7E-08	mg/kg-day	9.00E-01	mg/kg-day	1.08E-07
				alpha-Chlordane	1.86E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Aluminum	1.10E+04	mg/kg	7.1E-05	mg/kg-day	1.00E+00	mg/kg-day	7.13E-05
				Anthracene	5.40E-01	mg/kg	4.5E-07	mg/kg-day	3.00E-01	mg/kg-day	1.51E-06
				Antimony	5.00E+00	mg/kg	3.2E-08	mg/kg-day	4.00E-04	mg/kg-day	8.07E-05
				Aroclor-1260	1.01E+00	mg/kg	9.2E-07	mg/kg-day	2.00E-05	mg/kg-day	4.59E-02
				Arsenic	1.95E+01	mg/kg	3.8E-06	mg/kg-day	3.00E-04	mg/kg-day	1.26E-02
				Barium	2.06E+02	mg/kg	1.3E-06	mg/kg-day	4.90E-03	mg/kg-day	2.72E-04
				Benzene	1.87E+00	mg/kg	1.2E-07	mg/kg-day	4.00E-03	mg/kg-day	3.01E-05
				Benzo(a)anthracene	8.85E-01	mg/kg	7.4E-07	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.12E+00	mg/kg	9.4E-07	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	7.80E-01	mg/kg	6.6E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.88E-01	mg/kg	2.4E-07	mg/kg-day	3.00E-02	mg/kg-day	8.05E-06
				Benzo(k)fluoranthene	3.96E-01	mg/kg	3.3E-07	mg/kg-day	--	--	--

TABLE F-7.1.5.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Beryllium	1.90E+00	mg/kg	1.2E-08	mg/kg-day	1.40E-05	mg/kg-day	8.76E-04
				bis(2-ethylhexyl)phthalate	5.00E-02	mg/kg	3.2E-09	mg/kg-day	2.00E-02	mg/kg-day	1.61E-07
				Cadmium	1.30E+00	mg/kg	8.4E-09	mg/kg-day	5.00E-04	mg/kg-day	1.68E-05
				Carbazole	1.60E-01	mg/kg	1.0E-08	mg/kg-day	--	--	--
				Carbon disulfide	1.20E-02	mg/kg	1.9E-08	mg/kg-day	1.00E-01	mg/kg-day	1.94E-07
				Chlordane	1.49E-01	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Chromium	4.50E+01	mg/kg	2.9E-07	mg/kg-day	1.50E+00	mg/kg-day	1.94E-07
				Chrysene	9.05E-01	mg/kg	7.6E-07	mg/kg-day	--	--	--
				Cobalt	7.51E+00	mg/kg	4.9E-08	mg/kg-day	2.00E-02	mg/kg-day	2.43E-06
				Copper	9.89E+01	mg/kg	6.4E-07	mg/kg-day	4.00E-02	mg/kg-day	1.60E-05
				Dibenzo(a,h)anthracene	6.74E-02	mg/kg	5.7E-08	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	7.7E-08	mg/kg-day	2.00E-03	mg/kg-day	3.87E-05
				Diethylphthalate	2.20E-02	mg/kg	1.4E-09	mg/kg-day	8.00E-01	mg/kg-day	1.78E-09
				di-n-Butylphthalate	1.30E-01	mg/kg	8.4E-09	mg/kg-day	1.00E+01	mg/kg-day	8.40E-10
				di-n-Octylphthalate	9.40E-02	mg/kg	6.1E-09	mg/kg-day	4.00E-02	mg/kg-day	1.52E-07
				Ethylbenzene	5.72E+00	mg/kg	3.7E-07	mg/kg-day	1.00E-01	mg/kg-day	3.70E-06
				Fluoranthene	3.09E+00	mg/kg	2.6E-06	mg/kg-day	4.00E-02	mg/kg-day	6.49E-05
				Fluorene	4.10E-01	mg/kg	3.4E-07	mg/kg-day	4.00E-02	mg/kg-day	8.60E-06
				gamma-BHC (Lindane)	1.90E-03	mg/kg	4.9E-10	mg/kg-day	3.00E-04	mg/kg-day	1.64E-06
				gamma-Chlordane	1.85E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Indeno(1,2,3-cd)pyrene	2.70E-01	mg/kg	2.3E-07	mg/kg-day	--	--	--
				Iron	2.48E+04	mg/kg	1.6E-04	mg/kg-day	3.00E-01	mg/kg-day	5.34E-04
				Lead	1.80E+03	mg/kg	1.2E-05	mg/kg-day	--	--	--
				m,p-Xylene	3.09E+00	mg/kg	2.0E-07	mg/kg-day	2.00E-01	mg/kg-day	9.98E-07
				Manganese	2.87E+02	mg/kg	1.9E-06	mg/kg-day	2.40E-02	mg/kg-day	7.73E-05
				Mercury	3.10E+00	mg/kg	--	mg/kg-day	2.10E-05	mg/kg-day	--
				Methylene chloride	9.40E-02	mg/kg	6.1E-09	mg/kg-day	6.00E-02	mg/kg-day	1.01E-07
				Methyl-T-Butyl-Ether	4.00E-03	mg/kg	2.6E-10	mg/kg-day	8.60E-01	mg/kg-day	3.00E-10
				Naphthalene	3.48E-01	mg/kg	2.9E-07	mg/kg-day	2.00E-02	mg/kg-day	1.46E-05
				Nickel	3.65E+01	mg/kg	2.4E-07	mg/kg-day	8.00E-04	mg/kg-day	2.94E-04
				n-Nitroso-diphenylamine	5.50E-01	mg/kg	3.6E-08	mg/kg-day	2.00E-02	mg/kg-day	1.78E-06
				o-Xylene	1.22E+00	mg/kg	7.8E-08	mg/kg-day	2.00E-01	mg/kg-day	3.92E-07
				Phenanthrene	2.25E+00	mg/kg	1.5E-07	mg/kg-day	3.00E-01	mg/kg-day	4.84E-07
				Pyrene	1.80E+00	mg/kg	1.5E-06	mg/kg-day	3.00E-02	mg/kg-day	5.03E-05
				Silver	2.40E+00	mg/kg	1.5E-08	mg/kg-day	2.00E-04	mg/kg-day	7.75E-05
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.78E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Toluene	2.26E+01	mg/kg	1.5E-06	mg/kg-day	2.00E-01	mg/kg-day	7.30E-06

TABLE F-7.1.5.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Vanadium	3.46E+01	mg/kg	2.2E-07	mg/kg-day	1.82E-04	mg/kg-day	1.23E-03
				Xylene (Total)	3.19E+01	mg/kg	2.1E-06	mg/kg-day	2.00E-01	mg/kg-day	1.03E-05
				Zinc	3.97E+02	mg/kg	2.6E-06	mg/kg-day	3.00E-01	mg/kg-day	8.55E-06
			Exposure Route Total								**6.23E-02**
		Exposure Point Total									**3.89E-01**
	Exposure Medium Total										**3.89E-01**
	Air	Outdoor Air	Inhalation (particulates or VOCs)	2,4-Dimethylphenol	3.26E-11	mg/m^3	6.4E-12	mg/kg-day	2.00E-02	mg/kg-day	3.19E-10
				2-Butanone	1.26E-05	mg/m^3	2.5E-06	mg/kg-day	1.43E+00	mg/kg-day	1.73E-06
				2-Methylnaphthalene	1.90E-06	mg/m^3	3.7E-07	mg/kg-day	--	--	--
				4,4'-DDT	4.92E-12	mg/m^3	9.6E-13	mg/kg-day	5.00E-04	mg/kg-day	1.92E-09
				4-Methyl-2-pentanone	1.80E-06	mg/m^3	3.5E-07	mg/kg-day	8.60E-01	mg/kg-day	4.10E-07
				Acenaphthene	1.48E-06	mg/m^3	2.9E-07	mg/kg-day	6.00E-02	mg/kg-day	4.84E-06
				Acenaphthylene	1.08E-07	mg/m^3	2.1E-08	mg/kg-day	6.00E-02	mg/kg-day	3.52E-07
				Acetone	1.19E-04	mg/m^3	2.3E-05	mg/kg-day	9.00E-01	mg/kg-day	2.59E-05
				alpha-Chlordane	1.41E-12	mg/m^3	2.8E-13	mg/kg-day	2.00E-04	mg/kg-day	1.38E-09
				Aluminum	8.36E-06	mg/m^3	1.6E-06	mg/kg-day	1.43E-03	mg/kg-day	1.14E-03
				Anthracene	7.72E-07	mg/m^3	1.5E-07	mg/kg-day	3.00E-01	mg/kg-day	5.03E-07
				Antimony	3.79E-09	mg/m^3	7.4E-10	mg/kg-day	--	--	--
				Aroclor-1260	7.69E-10	mg/m^3	1.5E-10	mg/kg-day	2.00E-05	mg/kg-day	7.52E-06
				Arsenic	1.48E-08	mg/m^3	2.9E-09	mg/kg-day	--	mg/kg-day	--
				Barium	1.56E-07	mg/m^3	3.1E-08	mg/kg-day	1.40E-04	mg/kg-day	2.18E-04
				Benzene	6.91E-04	mg/m^3	1.4E-04	mg/kg-day	8.57E-03	mg/kg-day	1.58E-02
				Benzo(a)anthracene	6.70E-10	mg/m^3	1.3E-10	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.52E-10	mg/m^3	1.7E-10	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	5.91E-10	mg/m^3	1.2E-10	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.18E-10	mg/m^3	4.3E-11	mg/kg-day	3.00E-02	mg/kg-day	1.42E-09
				Benzo(k)fluoranthene	3.00E-10	mg/m^3	5.9E-11	mg/kg-day	--	--	--
				Beryllium	1.44E-09	mg/m^3	2.8E-10	mg/kg-day	5.71E-06	mg/kg-day	4.93E-05
				bis(2-ethylhexyl)phthalate	3.79E-11	mg/m^3	7.4E-12	mg/kg-day	2.20E-02	mg/kg-day	3.37E-10
				Cadmium	9.85E-10	mg/m^3	1.9E-10	mg/kg-day	--	mg/kg-day	--
				Carbazole	1.21E-10	mg/m^3	2.4E-11	mg/kg-day	--	--	--
				Carbon disulfide	1.00E-05	mg/m^3	2.0E-06	mg/kg-day	2.00E-01	mg/kg-day	9.78E-06
				Chlordane	1.13E-10	mg/m^3	2.2E-11	mg/kg-day	2.00E-04	mg/kg-day	1.10E-07
				Chromium	3.41E-08	mg/m^3	6.7E-09	mg/kg-day	--	--	--
				Chrysene	6.86E-10	mg/m^3	1.3E-10	mg/kg-day	--	--	--
				Cobalt	5.69E-09	mg/m^3	1.1E-09	mg/kg-day	5.71E-06	mg/kg-day	1.95E-04
				Copper	7.49E-08	mg/m^3	1.5E-08	mg/kg-day	--	--	--
				Dibenzo(a,h)anthracene	5.10E-11	mg/m^3	1.0E-11	mg/kg-day	--	--	--
				Dibenzofuran	1.85E-06	mg/m^3	3.6E-07	mg/kg-day	2.00E-03	mg/kg-day	1.81E-04
				Diethylphthalate	1.67E-11	mg/m^3	3.3E-12	mg/kg-day	8.00E-01	mg/kg-day	4.08E-12
				di-n-Butylphthalate	9.85E-11	mg/m^3	1.9E-11	mg/kg-day	--	--	--
				di-n-Octylphthalate	7.12E-11	mg/m^3	1.4E-11	mg/kg-day	4.00E-02	mg/kg-day	3.48E-10

TABLE F-7.1.5.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Air (continued)	Outdoor Air (continued)	Inhalation (particulates or VOCs) (continued)	Ethylbenzene	1.06E-03	mg/m^3	2.1E-04	mg/kg-day	2.86E-01	mg/kg-day	7.26E-04
				Fluoranthene	2.34E-09	mg/m^3	4.6E-10	mg/kg-day	4.00E-02	mg/kg-day	1.15E-08
				Fluorene	1.14E-06	mg/m^3	2.2E-07	mg/kg-day	4.00E-02	mg/kg-day	5.57E-06
				gamma-BHC (Lindane)	1.44E-12	mg/m^3	2.8E-13	mg/kg-day	3.00E-04	mg/kg-day	9.39E-10
				gamma-Chlordane	1.40E-12	mg/m^3	2.7E-13	mg/kg-day	2.00E-04	mg/kg-day	1.37E-09
				Indeno(1,2,3-cd)pyrene	2.04E-10	mg/m^3	4.0E-11	mg/kg-day	--	--	--
				Iron	1.88E-05	mg/m^3	3.7E-06	mg/kg-day	--	--	--
				Lead	1.37E-06	mg/m^3	2.7E-07	mg/kg-day	--	--	--
				m,p-Xylene	5.07E-04	mg/m^3	9.9E-05	mg/kg-day	2.86E-02	mg/kg-day	3.47E-03
				Manganese	2.18E-07	mg/m^3	4.3E-08	mg/kg-day	1.43E-05	mg/kg-day	2.98E-03
				Mercury	2.35E-09	mg/m^3	4.6E-10	mg/kg-day	--	mg/kg-day	--
				Methylene chloride	3.78E-05	mg/m^3	7.4E-06	mg/kg-day	8.57E-01	mg/kg-day	8.62E-06
				Methyl-T-Butyl-Ether	8.51E-07	mg/m^3	1.7E-07	mg/kg-day	8.57E-01	mg/kg-day	1.94E-07
				Naphthalene	8.08E-06	mg/m^3	1.6E-06	mg/kg-day	8.57E-04	mg/kg-day	1.85E-03
				Nickel	2.76E-08	mg/m^3	5.4E-09	mg/kg-day	5.71E-05	mg/kg-day	9.46E-05
				n-Nitroso-diphenylamine	4.17E-10	mg/m^3	8.2E-11	mg/kg-day	2.00E-02	mg/kg-day	4.08E-09
				o-Xylene	1.99E-04	mg/m^3	3.9E-05	mg/kg-day	2.86E-02	mg/kg-day	1.36E-03
				Phenanthrene	1.50E-06	mg/m^3	2.9E-07	mg/kg-day	3.00E-01	mg/kg-day	9.81E-07
				Pyrene	4.73E-07	mg/m^3	9.3E-08	mg/kg-day	3.00E-02	mg/kg-day	3.08E-06
				Silver	1.82E-09	mg/m^3	3.6E-10	mg/kg-day	--	--	--
				Thallium	3.48E-09	mg/m^3	6.8E-10	mg/kg-day	--	--	--
				Titanium	3.62E-07	mg/m^3	7.1E-08	mg/kg-day	8.60E-03	mg/kg-day	8.24E-06
				Toluene	5.65E-03	mg/m^3	1.1E-03	mg/kg-day	1.14E-01	mg/kg-day	9.67E-03
				Vanadium	2.62E-08	mg/m^3	5.1E-09	mg/kg-day	--	--	--
				Xylene (Total)	5.23E-03	mg/m^3	1.0E-03	mg/kg-day	2.86E-02	mg/kg-day	3.58E-02
				Zinc	3.01E-07	mg/m^3	5.9E-08	mg/kg-day	--	mg/kg-day	--
			Exposure Route Total								**7.36E-02**
		Exposure Point Total									**7.36E-02**
	Exposure Medium Total										**7.36E-02**
Medium Total											**4.63E-01**
Groundwater	Groundwater	Indoor Air	Inhalation (Vapor Intrusion)	1,1,1-Trichloroethane	2.01E-04	mg/m^3	3.94E-05	mg/kg-day	6.30E-01	mg/kg-day	6.26E-05
				1,1,2-Trichloroethane	4.59E-06	mg/m^3	8.97E-07	mg/kg-day	4.00E-03	mg/kg-day	2.24E-04
				1,1-Dichlorethane	3.16E-04	mg/m^3	6.19E-05	mg/kg-day	1.40E-01	mg/kg-day	4.42E-04
				1,1-Dichlorethene	9.92E-03	mg/m^3	1.94E-03	mg/kg-day	5.71E-02	mg/kg-day	3.40E-02
				1,2,4-Trimethylbenzene	2.33E-05	mg/m^3	4.57E-06	mg/kg-day	1.70E-03	mg/kg-day	2.69E-03
				1,2-Dichlorobenzene	9.49E-06	mg/m^3	1.86E-06	mg/kg-day	5.70E-02	mg/kg-day	3.26E-05
				1,2-Dichlorethane	7.70E-06	mg/m^3	1.51E-06	mg/kg-day	6.86E-01	mg/kg-day	2.20E-06
				1,2-Dichlorethene (Total)	6.08E-04	mg/m^3	1.19E-04	mg/kg-day	1.00E-02	mg/kg-day	1.19E-02
				1,2-Dichloropropane	1.41E-07	mg/m^3	2.75E-08	mg/kg-day	1.10E-03	mg/kg-day	2.50E-05
				1,3,5-Trimethylbenzene	2.08E-05	mg/m^3	4.08E-06	mg/kg-day	1.70E-03	mg/kg-day	2.40E-03
				1,3-Dichlorobenzene	5.39E-06	mg/m^3	1.05E-06	mg/kg-day	3.00E-02	mg/kg-day	3.51E-05
				1,4-Dichlorobenzene	5.92E-06	mg/m^3	1.16E-06	mg/kg-day	2.29E-01	mg/kg-day	5.07E-06

TABLE F-7.1.5.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Indoor Air (continued)	Inhalation (Vapor Intrusion) (continued)	2-Butanone	2.35E-06	mg/m^3	4.60E-07	mg/kg-day	1.43E+00	mg/kg-day	3.22E-07
				2-Hexanone	1.31E-07	mg/m^3	2.57E-08	mg/kg-day	8.60E-01	mg/kg-day	2.99E-08
				2-MethylNaphthalene	8.28E-08	mg/m^3	1.62E-08	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	1.90E-06	mg/m^3	3.72E-07	mg/kg-day	8.60E-01	mg/kg-day	4.33E-07
				Acenaphthene	6.52E-08	mg/m^3	1.28E-08	mg/kg-day	6.00E-02	mg/kg-day	2.13E-07
				Acenaphthylene	6.52E-08	mg/m^3	1.28E-08	mg/kg-day	6.00E-02	mg/kg-day	2.13E-07
				Acetone	5.45E-05	mg/m^3	1.07E-05	mg/kg-day	9.00E-01	mg/kg-day	1.18E-05
				Benzene	5.01E-05	mg/m^3	9.80E-06	mg/kg-day	8.57E-03	mg/kg-day	1.14E-03
				Bromodichloromethane	2.55E-06	mg/m^3	5.00E-07	mg/kg-day	2.00E-02	mg/kg-day	2.50E-05
				Carbon disulfide	1.61E-04	mg/m^3	3.15E-05	mg/kg-day	2.00E-01	mg/kg-day	1.57E-04
				Chlorobenzene	9.89E-06	mg/m^3	1.94E-06	mg/kg-day	1.71E-02	mg/kg-day	1.13E-04
				Chloroethane	1.47E-04	mg/m^3	2.87E-05	mg/kg-day	2.90E+00	mg/kg-day	9.91E-06
				Chloroform	1.82E-05	mg/m^3	3.57E-06	mg/kg-day	1.40E-04	mg/kg-day	2.55E-02
				Chloromethane	5.88E-05	mg/m^3	1.15E-05	mg/kg-day	2.57E-02	mg/kg-day	4.47E-04
				cis-1,2-Dichloroethene	1.15E-04	mg/m^3	2.25E-05	mg/kg-day	1.00E-02	mg/kg-day	2.25E-03
				Cyanide	9.60E-06	mg/m^3	1.88E-06	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	2.48E-05	mg/m^3	4.86E-06	mg/kg-day	2.86E-01	mg/kg-day	1.70E-05
				Fluorene	1.34E-08	mg/m^3	2.62E-09	mg/kg-day	4.00E-02	mg/kg-day	6.56E-08
				Hexachlorobutadiene	9.57E-07	mg/m^3	1.87E-07	mg/kg-day	3.00E-04	mg/kg-day	6.24E-04
				Isopropylbenzene	2.12E-03	mg/m^3	4.15E-04	mg/kg-day	1.10E-01	mg/kg-day	3.78E-03
				m,p-Xylene	4.52E-05	mg/m^3	8.84E-06	mg/kg-day	2.86E-02	mg/kg-day	3.09E-04
				Methylene Chloride	1.47E-05	mg/m^3	2.87E-06	mg/kg-day	8.57E-01	mg/kg-day	3.35E-06
				Methyl-T-Butyl-ether	2.95E-06	mg/m^3	5.78E-07	mg/kg-day	8.57E-01	mg/kg-day	6.75E-07
				Naphthalene	5.03E-06	mg/m^3	9.84E-07	mg/kg-day	8.57E-04	mg/kg-day	1.15E-03
				n-Butylbenzene	9.94E-06	mg/m^3	1.95E-06	mg/kg-day	1.14E-02	mg/kg-day	1.70E-04
				n-propylbenzene	4.44E-05	mg/m^3	8.68E-06	mg/kg-day	4.00E-02	mg/kg-day	2.17E-04
				o-Xylene	1.73E-05	mg/m^3	3.38E-06	mg/kg-day	2.86E-02	mg/kg-day	1.18E-04
				Phenanthrene	1.75E-08	mg/m^3	3.43E-09	mg/kg-day	3.00E-01	mg/kg-day	1.14E-08
				Pyrene	6.77E-09	mg/m^3	1.32E-09	mg/kg-day	3.00E-02	mg/kg-day	4.42E-08
				sec-Butylbenzene	5.50E-09	mg/m^3	1.08E-09	mg/kg-day	1.14E-02	mg/kg-day	9.42E-08
				tert-Butylbenzene	1.30E-06	mg/m^3	2.54E-07	mg/kg-day	1.14E-02	mg/kg-day	2.22E-05
				trans-1,2-Dichloroethene	9.43E-05	mg/m^3	1.85E-05	mg/kg-day	2.00E-02	mg/kg-day	9.23E-04
				Tetrachloroethene	4.75E-05	mg/m^3	9.29E-06	mg/kg-day	1.71E-01	mg/kg-day	5.42E-05
				Toluene	2.22E-05	mg/m^3	4.34E-06	mg/kg-day	1.14E-01	mg/kg-day	3.80E-05
				Trichloroethene	5.23E-03	mg/m^3	1.02E-03	mg/kg-day	1.00E-02	mg/kg-day	1.02E-01
				Vinyl chloride	5.47E-04	mg/m^3	1.07E-04	mg/kg-day	2.86E-02	mg/kg-day	3.75E-03
				Xylene (Total)	5.96E-05	mg/m^3	1.17E-05	mg/kg-day	2.86E-02	mg/kg-day	4.09E-04
			Exposure Route Total								**1.95E-01**
		Exposure Point Total									**1.95E-01**
	Exposure Medium Total										**1.95E-01**
Medium Total											**1.95E-01**
										Total of Receptor Hazards Across All Media	**6.58E-01**

TABLE F-7.1.5.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED INDUSTRIAL WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Industrial Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	

Notes:

--	Not applicable or not available
EPA	U.S. Environmental Protection Agency
EPC	Exposure point concentration
ft bgs	Feet below ground surface
mg/kg	Milligram per kilogram
mg/kg-day	Milligram per kilogram per day
mg/m^3	Milligram per cubic meter
RAGS	Risk Assessment Guidelines for Superfund
RfD	Reference dose
RfC	Reference concentration
RI	Remedial Investigation
RME	Reasonable maximum expsoure
VOC	Volatile Organic Compound

(a) See the Vapor Intrusion to Indoor Air Evaluation for determination of the modeled indoor air concentration.

TABLE F-7.1.6.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS
HYPOTHETICAL FUTURE REDEVELOPED CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs)	Soil	Site Soil	Ingestion	2,4-Dimethylphenol	4.30E-02	mg/kg	1.39E-07	mg/kg-day	2.00E-02	mg/kg-day	6.94E-06
				2-Butanone	2.40E-01	mg/kg	7.75E-07	mg/kg-day	6.00E-01	mg/kg-day	1.29E-06
				2-Methylnaphthalene	2.69E-01	mg/kg	8.70E-07	mg/kg-day	4.00E-03	mg/kg-day	2.17E-04
				4,4'-DDT	6.49E-03	mg/kg	2.10E-08	mg/kg-day	5.00E-04	mg/kg-day	4.19E-05
				4-Methyl-2-pentanone	4.50E-02	mg/kg	1.45E-07	mg/kg-day	8.00E-02	mg/kg-day	1.82E-06
				Acenaphthene	2.67E-01	mg/kg	8.62E-07	mg/kg-day	6.00E-02	mg/kg-day	1.44E-05
				Acenaphthylene	1.94E-02	mg/kg	6.28E-08	mg/kg-day	6.00E-02	mg/kg-day	1.05E-06
				Acetone	1.50E+00	mg/kg	4.84E-06	mg/kg-day	9.00E-01	mg/kg-day	5.38E-06
				alpha-Chlordane	1.86E-03	mg/kg	6.00E-09	mg/kg-day	5.00E-04	mg/kg-day	1.20E-05
				Aluminum	1.10E+04	mg/kg	3.56E-02	mg/kg-day	1.00E+00	mg/kg-day	3.56E-02
				Anthracene	5.40E-01	mg/kg	1.74E-06	mg/kg-day	3.00E-01	mg/kg-day	5.81E-06
				Antimony	5.00E+00	mg/kg	1.61E-05	mg/kg-day	4.00E-04	mg/kg-day	4.04E-02
				Aroclor-1260	1.01E+00	mg/kg	3.28E-06	mg/kg-day	2.00E-05	mg/kg-day	1.64E-01
				Arsenic	1.95E+01	mg/kg	6.31E-05	mg/kg-day	3.00E-04	mg/kg-day	2.10E-01
				Barium	2.06E+02	mg/kg	6.66E-04	mg/kg-day	7.00E-02	mg/kg-day	9.51E-03
				Benzene	1.87E+00	mg/kg	6.03E-06	mg/kg-day	4.00E-03	mg/kg-day	1.51E-03
				Benzo(a)anthracene	8.85E-01	mg/kg	2.86E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.12E+00	mg/kg	3.63E-06	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	7.80E-01	mg/kg	2.52E-06	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.88E-01	mg/kg	9.29E-07	mg/kg-day	3.00E-02	mg/kg-day	3.10E-05
				Benzo(k)fluoranthene	3.96E-01	mg/kg	1.28E-06	mg/kg-day	--	--	--
				Beryllium	1.90E+00	mg/kg	6.14E-06	mg/kg-day	2.00E-03	mg/kg-day	3.07E-03
				bis(2-ethylhexyl)phthalate	5.00E-02	mg/kg	1.61E-07	mg/kg-day	2.00E-02	mg/kg-day	8.07E-06
				Cadmium	1.30E+00	mg/kg	4.20E-06	mg/kg-day	5.00E-04	mg/kg-day	8.40E-03
				Carbazole	1.60E-01	mg/kg	5.17E-07	mg/kg-day	--	--	--
				Carbon disulfide	1.20E-02	mg/kg	3.87E-08	mg/kg-day	1.00E-01	mg/kg-day	3.87E-07
				Chlordane	1.49E-01	mg/kg	4.81E-07	mg/kg-day	5.00E-04	mg/kg-day	9.62E-04
				Chromium	4.50E+01	mg/kg	1.45E-04	mg/kg-day	1.50E+00	mg/kg-day	9.68E-05
				Chrysene	9.05E-01	mg/kg	2.92E-06	mg/kg-day	--	--	--
				Cobalt	7.51E+00	mg/kg	2.43E-05	mg/kg-day	2.00E-02	mg/kg-day	1.21E-03
				Copper	9.89E+01	mg/kg	3.19E-04	mg/kg-day	4.00E-02	mg/kg-day	7.99E-03
				Dibenzo(a,h)anthracene	6.74E-02	mg/kg	2.18E-07	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	3.87E-06	mg/kg-day	2.00E-03	mg/kg-day	1.94E-03
				Diethylphthalate	2.20E-02	mg/kg	7.10E-08	mg/kg-day	8.00E-01	mg/kg-day	8.88E-08
				di-n-Butylphthalate	1.30E-01	mg/kg	4.20E-07	mg/kg-day	1.00E-01	mg/kg-day	4.20E-06
				di-n-Octylphthalate	9.40E-02	mg/kg	3.04E-07	mg/kg-day	4.00E-02	mg/kg-day	7.59E-06
				Ethylbenzene	5.72E+00	mg/kg	1.85E-05	mg/kg-day	1.00E-01	mg/kg-day	1.85E-04
				Fluoranthene	3.09E+00	mg/kg	9.98E-06	mg/kg-day	4.00E-02	mg/kg-day	2.50E-04
				Fluorene	4.10E-01	mg/kg	1.32E-06	mg/kg-day	4.00E-02	mg/kg-day	3.31E-05
				gamma-BHC (Lindane)	1.90E-03	mg/kg	6.14E-09	mg/kg-day	3.00E-04	mg/kg-day	2.05E-05
				gamma-Chlordane	1.85E-03	mg/kg	5.96E-09	mg/kg-day	5.00E-04	mg/kg-day	1.19E-05
				Indeno(1,2,3-cd)pyrene	2.70E-01	mg/kg	8.72E-07	mg/kg-day	--	--	--

TABLE F-7.1.6.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Ingestion (continued)	Iron	2.48E+04	mg/kg	8.01E-02	mg/kg-day	3.00E-01	mg/kg-day	2.67E-01
				Lead	1.80E+03	mg/kg	5.82E-03	mg/kg-day	--	--	--
				m,p-Xylene	3.09E+00	mg/kg	9.98E-06	mg/kg-day	2.00E-01	mg/kg-day	4.99E-05
				Manganese	2.87E+02	mg/kg	9.28E-04	mg/kg-day	2.40E-02	mg/kg-day	3.86E-02
				Mercury	3.10E+00	mg/kg	1.00E-05	mg/kg-day	3.00E-04	mg/kg-day	3.34E-02
				Methylene chloride	9.40E-02	mg/kg	3.04E-07	mg/kg-day	6.00E-02	mg/kg-day	5.06E-06
				Methyl-T-Butyl-Ether	4.00E-03	mg/kg	1.29E-08	mg/kg-day	8.60E-01	mg/kg-day	1.50E-08
				Naphthalene	3.48E-01	mg/kg	1.12E-06	mg/kg-day	2.00E-02	mg/kg-day	5.61E-05
				Nickel	3.65E+01	mg/kg	1.18E-04	mg/kg-day	2.00E-02	mg/kg-day	5.89E-03
				n-Nitroso-diphenylamine	5.50E-01	mg/kg	1.78E-06	mg/kg-day	2.00E-02	mg/kg-day	8.88E-05
				o-Xylene	1.22E+00	mg/kg	3.92E-06	mg/kg-day	2.00E-01	mg/kg-day	1.96E-05
				Phenanthrene	2.25E+00	mg/kg	7.26E-06	mg/kg-day	3.00E-01	mg/kg-day	2.42E-05
				Pyrene	1.80E+00	mg/kg	5.80E-06	mg/kg-day	3.00E-02	mg/kg-day	1.93E-04
				Silver	2.40E+00	mg/kg	7.75E-06	mg/kg-day	5.00E-03	mg/kg-day	1.55E-03
				Thallium	4.60E+00	mg/kg	1.49E-05	mg/kg-day	6.60E-05	mg/kg-day	2.25E-01
				Titanium	4.78E+02	mg/kg	1.54E-03	mg/kg-day	4.00E+00	mg/kg-day	3.86E-04
				Toluene	2.26E+01	mg/kg	7.30E-05	mg/kg-day	2.00E-01	mg/kg-day	3.65E-04
				Vanadium	3.46E+01	mg/kg	1.12E-04	mg/kg-day	7.00E-03	mg/kg-day	1.60E-02
				Xylene (Total)	3.19E+01	mg/kg	1.03E-04	mg/kg-day	2.00E-01	mg/kg-day	5.15E-04
				Zinc	3.97E+02	mg/kg	1.28E-03	mg/kg-day	3.00E-01	mg/kg-day	4.28E-03
			Exposure Route Total								**1.08E+00**
			Dermal	2,4-Dimethylphenol	4.30E-02	mg/kg	4.2E-09	mg/kg-day	2.00E-02	mg/kg-day	2.08E-07
				2-Butanone	2.40E-01	mg/kg	2.3E-08	mg/kg-day	6.00E-01	mg/kg-day	3.87E-08
				2-Methylnaphthalene	2.69E-01	mg/kg	2.6E-08	mg/kg-day	4.00E-03	mg/kg-day	6.52E-06
				4,4'-DDT	6.49E-03	mg/kg	1.9E-09	mg/kg-day	5.00E-04	mg/kg-day	3.77E-06
				4-Methyl-2-pentanone	4.50E-02	mg/kg	4.4E-09	mg/kg-day	8.00E-02	mg/kg-day	5.45E-08
				Acenaphthene	2.67E-01	mg/kg	3.4E-07	mg/kg-day	6.00E-02	mg/kg-day	5.61E-06
				Acenaphthylene	1.94E-02	mg/kg	1.9E-09	mg/kg-day	6.00E-02	mg/kg-day	3.14E-08
				Acetone	1.50E+00	mg/kg	1.5E-07	mg/kg-day	9.00E-01	mg/kg-day	1.61E-07
				alpha-Chlordane	1.86E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Aluminum	1.10E+04	mg/kg	1.1E-04	mg/kg-day	1.00E+00	mg/kg-day	1.07E-04
				Anthracene	5.40E-01	mg/kg	6.8E-07	mg/kg-day	3.00E-01	mg/kg-day	2.27E-06
				Antimony	5.00E+00	mg/kg	4.8E-08	mg/kg-day	4.00E-04	mg/kg-day	1.21E-04
				Aroclor-1260	1.01E+00	mg/kg	1.4E-06	mg/kg-day	2.00E-05	mg/kg-day	6.88E-02
				Arsenic	1.95E+01	mg/kg	5.7E-06	mg/kg-day	3.00E-04	mg/kg-day	1.89E-02
				Barium	2.06E+02	mg/kg	2.0E-06	mg/kg-day	4.90E-03	mg/kg-day	4.08E-04
				Benzene	1.87E+00	mg/kg	1.8E-07	mg/kg-day	4.00E-03	mg/kg-day	4.52E-05
				Benzo(a)anthracene	8.85E-01	mg/kg	1.1E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.12E+00	mg/kg	1.4E-06	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	7.80E-01	mg/kg	9.8E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.88E-01	mg/kg	3.6E-07	mg/kg-day	3.00E-02	mg/kg-day	1.21E-05
				Benzo(k)fluoranthene	3.96E-01	mg/kg	5.0E-07	mg/kg-day	--	--	--

TABLE F-7.1.6.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Beryllium	1.90E+00	mg/kg	1.8E-08	mg/kg-day	1.40E-05	mg/kg-day	1.31E-03
				bis(2-ethylhexyl)phthalate	5.00E-02	mg/kg	4.8E-09	mg/kg-day	2.00E-02	mg/kg-day	2.42E-07
				Cadmium	1.30E+00	mg/kg	1.3E-08	mg/kg-day	5.00E-04	mg/kg-day	2.52E-05
				Carbazole	1.60E-01	mg/kg	1.5E-08	mg/kg-day	--	--	--
				Carbon disulfide	1.20E-02	mg/kg	2.9E-08	mg/kg-day	1.00E-01	mg/kg-day	2.91E-07
				Chlordane	1.49E-01	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Chromium	4.50E+01	mg/kg	4.4E-07	mg/kg-day	1.50E+00	mg/kg-day	2.90E-07
				Chrysene	9.05E-01	mg/kg	1.1E-06	mg/kg-day	--	--	--
				Cobalt	7.51E+00	mg/kg	7.3E-08	mg/kg-day	2.00E-02	mg/kg-day	3.64E-06
				Copper	9.89E+01	mg/kg	9.6E-07	mg/kg-day	4.00E-02	mg/kg-day	2.40E-05
				Dibenzo(a,h)anthracene	6.74E-02	mg/kg	8.5E-08	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	1.2E-07	mg/kg-day	2.00E-03	mg/kg-day	5.81E-05
				Diethylphthalate	2.20E-02	mg/kg	2.1E-09	mg/kg-day	8.00E-01	mg/kg-day	2.66E-09
				di-n-Butylphthalate	1.30E-01	mg/kg	1.3E-08	mg/kg-day	1.00E+01	mg/kg-day	1.26E-09
				di-n-Octylphthalate	9.40E-02	mg/kg	9.1E-09	mg/kg-day	4.00E-02	mg/kg-day	2.28E-07
				Ethylbenzene	5.72E+00	mg/kg	5.5E-07	mg/kg-day	1.00E-01	mg/kg-day	5.54E-06
				Fluoranthene	3.09E+00	mg/kg	3.9E-06	mg/kg-day	4.00E-02	mg/kg-day	9.73E-05
				Fluorene	4.10E-01	mg/kg	5.2E-07	mg/kg-day	4.00E-02	mg/kg-day	1.29E-05
				gamma-BHC (Lindane)	1.90E-03	mg/kg	7.4E-10	mg/kg-day	3.00E-04	mg/kg-day	2.45E-06
				gamma-Chlordane	1.85E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Indeno(1,2,3-cd)pyrene	2.70E-01	mg/kg	3.4E-07	mg/kg-day	--	--	--
				Iron	2.48E+04	mg/kg	2.4E-04	mg/kg-day	3.00E-01	mg/kg-day	8.01E-04
				Lead	1.80E+03	mg/kg	1.7E-05	mg/kg-day	--	--	--
				m,p-Xylene	3.09E+00	mg/kg	3.0E-07	mg/kg-day	2.00E-01	mg/kg-day	1.50E-06
				Manganese	2.87E+02	mg/kg	2.8E-06	mg/kg-day	2.40E-02	mg/kg-day	1.16E-04
				Mercury	3.10E+00	mg/kg	--	mg/kg-day	2.10E-05	mg/kg-day	--
				Methylene chloride	9.40E-02	mg/kg	9.1E-09	mg/kg-day	6.00E-02	mg/kg-day	1.52E-07
				Methyl-T-Butyl-Ether	4.00E-03	mg/kg	3.9E-10	mg/kg-day	8.60E-01	mg/kg-day	4.51E-10
				Naphthalene	3.48E-01	mg/kg	4.4E-07	mg/kg-day	2.00E-02	mg/kg-day	2.19E-05
				Nickel	3.65E+01	mg/kg	3.5E-07	mg/kg-day	8.00E-04	mg/kg-day	4.42E-04
				n-Nitroso-diphenylamine	5.50E-01	mg/kg	5.3E-08	mg/kg-day	2.00E-02	mg/kg-day	2.66E-06
				o-Xylene	1.22E+00	mg/kg	1.2E-07	mg/kg-day	2.00E-01	mg/kg-day	5.89E-07
				Phenanthrene	2.25E+00	mg/kg	2.2E-07	mg/kg-day	3.00E-01	mg/kg-day	7.26E-07
				Pyrene	1.80E+00	mg/kg	2.3E-06	mg/kg-day	3.00E-02	mg/kg-day	7.54E-05
				Silver	2.40E+00	mg/kg	2.3E-08	mg/kg-day	2.00E-04	mg/kg-day	1.16E-04
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.78E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Toluene	2.26E+01	mg/kg	2.2E-06	mg/kg-day	2.00E-01	mg/kg-day	1.09E-05
				Vanadium	3.46E+01	mg/kg	3.4E-07	mg/kg-day	1.82E-04	mg/kg-day	1.84E-03

TABLE F-7.1.6.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Xylene (Total)	3.19E+01	mg/kg	3.1E-06	mg/kg-day	2.00E-01	mg/kg-day	1.55E-05
				Zinc	3.97E+02	mg/kg	3.8E-06	mg/kg-day	3.00E-01	mg/kg-day	1.28E-05
			Exposure Route Total								**9.35E-02**
		Exposure Point Total									**1.17E+00**
	Exposure Medium Total										**1.17E+00**
	Air	Outdoor Air	Inhalation (particulates or VOCs)	2,4-Dimethylphenol	3.26E-11	mg/m^3	6.4E-12	mg/kg-day	2.00E-02	mg/kg-day	3.19E-10
				2-Butanone	1.26E-05	mg/m^3	2.5E-06	mg/kg-day	1.43E+00	mg/kg-day	1.73E-06
				2-Methylnaphthalene	1.90E-06	mg/m^3	3.7E-07	mg/kg-day	--	--	--
				4,4'-DDT	4.92E-12	mg/m^3	9.6E-13	mg/kg-day	5.00E-04	mg/kg-day	1.92E-09
				4-Methyl-2-pentanone	1.80E-06	mg/m^3	3.5E-07	mg/kg-day	8.60E-01	mg/kg-day	4.10E-07
				Acenaphthene	1.48E-06	mg/m^3	2.9E-07	mg/kg-day	6.00E-02	mg/kg-day	4.84E-06
				Acenaphthylene	1.08E-07	mg/m^3	2.1E-08	mg/kg-day	6.00E-02	mg/kg-day	3.52E-07
				Acetone	1.19E-04	mg/m^3	2.3E-05	mg/kg-day	9.00E-01	mg/kg-day	2.59E-05
				alpha-Chlordane	1.41E-12	mg/m^3	2.8E-13	mg/kg-day	2.00E-04	mg/kg-day	1.38E-09
				Aluminum	8.36E-06	mg/m^3	1.6E-06	mg/kg-day	1.43E-03	mg/kg-day	1.14E-03
				Anthracene	7.72E-07	mg/m^3	1.5E-07	mg/kg-day	3.00E-01	mg/kg-day	5.03E-07
				Antimony	3.79E-09	mg/m^3	7.4E-10	mg/kg-day	--	--	--
				Aroclor-1260	7.69E-10	mg/m^3	1.5E-10	mg/kg-day	2.00E-05	mg/kg-day	7.52E-06
				Arsenic	1.48E-08	mg/m^3	2.9E-09	mg/kg-day	--	mg/kg-day	--
				Barium	1.56E-07	mg/m^3	3.1E-08	mg/kg-day	1.40E-04	mg/kg-day	2.18E-04
				Benzene	6.91E-04	mg/m^3	1.4E-04	mg/kg-day	8.57E-03	mg/kg-day	1.58E-02
				Benzo(a)anthracene	6.70E-10	mg/m^3	1.3E-10	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.52E-10	mg/m^3	1.7E-10	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	5.91E-10	mg/m^3	1.2E-10	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.18E-10	mg/m^3	4.3E-11	mg/kg-day	3.00E-02	mg/kg-day	1.42E-09
				Benzo(k)fluoranthene	3.00E-10	mg/m^3	5.9E-11	mg/kg-day	--	--	--
				Beryllium	1.44E-09	mg/m^3	2.8E-10	mg/kg-day	5.71E-06	mg/kg-day	4.93E-05
				bis(2-ethylhexyl)phthalate	3.79E-11	mg/m^3	7.4E-12	mg/kg-day	2.20E-02	mg/kg-day	3.37E-10
				Cadmium	9.85E-10	mg/m^3	1.9E-10	mg/kg-day	--	mg/kg-day	--
				Carbazole	1.21E-10	mg/m^3	2.4E-11	mg/kg-day	--	--	--
				Carbon disulfide	1.00E-05	mg/m^3	2.0E-06	mg/kg-day	2.00E-01	mg/kg-day	9.78E-06
				Chlordane	1.13E-10	mg/m^3	2.2E-11	mg/kg-day	2.00E-04	mg/kg-day	1.10E-07
				Chromium	3.41E-08	mg/m^3	6.7E-09	mg/kg-day	--	--	--
				Chrysene	6.86E-10	mg/m^3	1.3E-10	mg/kg-day	--	--	--
				Cobalt	5.69E-09	mg/m^3	1.1E-09	mg/kg-day	5.71E-06	mg/kg-day	1.95E-04
				Copper	7.49E-08	mg/m^3	1.5E-08	mg/kg-day	--	--	--
				Dibenzo(a,h)anthracene	5.10E-11	mg/m^3	1.0E-11	mg/kg-day	--	--	--
				Dibenzofuran	1.85E-06	mg/m^3	3.6E-07	mg/kg-day	2.00E-03	mg/kg-day	1.81E-04
				Diethylphthalate	1.67E-11	mg/m^3	3.3E-12	mg/kg-day	8.00E-01	mg/kg-day	4.08E-12
				di-n-Butylphthalate	9.85E-11	mg/m^3	1.9E-11	mg/kg-day	--	--	--
				di-n-Octylphthalate	7.12E-11	mg/m^3	1.4E-11	mg/kg-day	4.00E-02	mg/kg-day	3.48E-10
				Ethylbenzene	1.06E-03	mg/m^3	2.1E-04	mg/kg-day	2.86E-01	mg/kg-day	7.26E-04

TABLE F-7.1.6.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Air (continued)	Outdoor Air (continued)	Inhalation (particulates or VOCs) (continued)	Fluoranthene	2.34E-09	mg/m^3	4.6E-10	mg/kg-day	4.00E-02	mg/kg-day	1.15E-08
				Fluorene	1.14E-06	mg/m^3	2.2E-07	mg/kg-day	4.00E-02	mg/kg-day	5.57E-06
				gamma-BHC (Lindane)	1.44E-12	mg/m^3	2.8E-13	mg/kg-day	3.00E-04	mg/kg-day	9.39E-10
				gamma-Chlordane	1.40E-12	mg/m^3	2.7E-13	mg/kg-day	2.00E-04	mg/kg-day	1.37E-09
				Indeno(1,2,3-cd)pyrene	2.04E-10	mg/m^3	4.0E-11	mg/kg-day	--	--	--
				Iron	1.88E-05	mg/m^3	3.7E-06	mg/kg-day	--	--	--
				Lead	1.37E-06	mg/m^3	2.7E-07	mg/kg-day	--	--	--
				m,p-Xylene	5.07E-04	mg/m^3	9.9E-05	mg/kg-day	2.86E-02	mg/kg-day	3.47E-03
				Manganese	2.18E-07	mg/m^3	4.3E-08	mg/kg-day	1.43E-05	mg/kg-day	2.98E-03
				Mercury	2.35E-09	mg/m^3	4.6E-10	mg/kg-day	--	mg/kg-day	--
				Methylene chloride	3.78E-05	mg/m^3	7.4E-06	mg/kg-day	8.57E-01	mg/kg-day	8.62E-06
				Methyl-T-Butyl-Ether	8.51E-07	mg/m^3	1.7E-07	mg/kg-day	8.57E-01	mg/kg-day	1.94E-07
				Naphthalene	8.08E-06	mg/m^3	1.6E-06	mg/kg-day	8.57E-04	mg/kg-day	1.85E-03
				Nickel	2.76E-08	mg/m^3	5.4E-09	mg/kg-day	5.71E-05	mg/kg-day	9.46E-05
				n-Nitroso-diphenylamine	4.17E-10	mg/m^3	8.2E-11	mg/kg-day	2.00E-02	mg/kg-day	4.08E-09
				o-Xylene	1.99E-04	mg/m^3	3.9E-05	mg/kg-day	2.86E-02	mg/kg-day	1.36E-03
				Phenanthrene	1.50E-06	mg/m^3	2.9E-07	mg/kg-day	3.00E-01	mg/kg-day	9.81E-07
				Pyrene	4.73E-07	mg/m^3	9.3E-08	mg/kg-day	3.00E-02	mg/kg-day	3.08E-06
				Silver	1.82E-09	mg/m^3	3.6E-10	mg/kg-day	--	--	--
				Thallium	3.48E-09	mg/m^3	6.8E-10	mg/kg-day	--	--	--
				Titanium	3.62E-07	mg/m^3	7.1E-08	mg/kg-day	8.60E-03	mg/kg-day	8.24E-06
				Toluene	5.65E-03	mg/m^3	1.1E-03	mg/kg-day	1.14E-01	mg/kg-day	9.67E-03
				Vanadium	2.62E-08	mg/m^3	5.1E-09	mg/kg-day	--	--	--
				Xylene (Total)	5.23E-03	mg/m^3	1.0E-03	mg/kg-day	2.86E-02	mg/kg-day	3.58E-02
				Zinc	3.01E-07	mg/m^3	5.9E-08	mg/kg-day	--	mg/kg-day	--
			Exposure Route Total								**7.36E-02**
		Exposure Point Total									**7.36E-02**
	Exposure Medium Total										**7.36E-02**
Medium Total											**1.25E+00**
Groundwater	Groundwater	Indoor Air	Inhalation (Vapor Intrusion)	1,1,1-Trichloroethane	2.29E-04	mg/m^3	4.49E-05	mg/kg-day	6.30E-01	mg/kg-day	7.12E-05
				1,1,2-Trichloroethane	5.81E-06	mg/m^3	1.14E-06	mg/kg-day	4.00E-03	mg/kg-day	2.84E-04
				1,1-Dichlorethane	3.45E-04	mg/m^3	6.76E-05	mg/kg-day	1.40E-01	mg/kg-day	4.83E-04
				1,1-Dichlorethene	1.06E-02	mg/m^3	2.07E-03	mg/kg-day	5.71E-02	mg/kg-day	3.63E-02
				1,2,4-Trimethylbenzene	--	mg/m^3	--	mg/kg-day	1.70E-03	mg/kg-day	--
				1,2-Dichlorobenzene	1.35E-05	mg/m^3	2.64E-06	mg/kg-day	5.70E-02	mg/kg-day	4.63E-05
				1,2-Dichlorethane	9.78E-06	mg/m^3	1.91E-06	mg/kg-day	6.86E-01	mg/kg-day	2.79E-06
				1,2-Dichlorethene (Total)	2.96E-04	mg/m^3	5.79E-05	mg/kg-day	1.00E-02	mg/kg-day	5.79E-03
				1,2-Dichloropropane	1.68E-07	mg/m^3	3.29E-08	mg/kg-day	1.10E-03	mg/kg-day	2.99E-05
				1,3,5-Trimethylbenzene	--	mg/m^3	--	mg/kg-day	1.70E-03	mg/kg-day	--
				1,3-Dichlorobenzene	5.79E-06	mg/m^3	1.13E-06	mg/kg-day	3.00E-02	mg/kg-day	3.78E-05
				1,4-Dichlorobenzene	8.27E-01	mg/m^3	1.62E-01	mg/kg-day	2.29E-01	mg/kg-day	7.08E-01
				2-Butanone	--	mg/m^3	--	mg/kg-day	1.43E+00	mg/kg-day	--

TABLE F-7.1.6.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Indoor Air (continued)	Inhalation (Vapor Intrusion) (continued)	2-Hexanone	--	mg/m^3	--	mg/kg-day	8.60E-01	mg/kg-day	--
				2-MethylNaphthalene	1.55E-07	mg/m^3	3.04E-08	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	--	mg/m^3	--	mg/kg-day	8.60E-01	mg/kg-day	--
				Acenaphthene	1.07E-07	mg/m^3	2.09E-08	mg/kg-day	6.00E-02	mg/kg-day	3.49E-07
				Acenaphthylene	--	mg/m^3	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Acetone	6.83E-05	mg/m^3	1.34E-05	mg/kg-day	9.00E-01	mg/kg-day	1.49E-05
				Benzene	5.97E-05	mg/m^3	1.17E-05	mg/kg-day	8.57E-03	mg/kg-day	1.36E-03
				Bromodichloromethane	2.63E-06	mg/m^3	5.15E-07	mg/kg-day	2.00E-02	mg/kg-day	2.57E-05
				Carbon disulfide	1.81E-04	mg/m^3	3.54E-05	mg/kg-day	2.00E-01	mg/kg-day	1.77E-04
				Chlorobenzene	1.26E-05	mg/m^3	2.47E-06	mg/kg-day	1.71E-02	mg/kg-day	1.44E-04
				Chloroethane	--	mg/m^3	--	mg/kg-day	2.90E+00	mg/kg-day	--
				Chloroform	2.17E-05	mg/m^3	4.25E-06	mg/kg-day	1.40E-04	mg/kg-day	3.03E-02
				Chloromethane	--	mg/m^3	--	mg/kg-day	2.57E-02	mg/kg-day	--
				cis-1,2-Dichloroethene	1.28E-04	mg/m^3	2.50E-05	mg/kg-day	1.00E-02	mg/kg-day	2.50E-03
				Cyanide	--	mg/m^3	--	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	3.25E-05	mg/m^3	6.36E-06	mg/kg-day	2.86E-01	mg/kg-day	2.23E-05
				Fluorene	2.06E-08	mg/m^3	4.03E-09	mg/kg-day	4.00E-02	mg/kg-day	1.01E-07
				Hexachlorobutadiene	1.40E-06	mg/m^3	2.74E-07	mg/kg-day	3.00E-04	mg/kg-day	9.13E-04
				Isopropylbenzene	2.49E-05	mg/m^3	4.88E-06	mg/kg-day	1.10E-01	mg/kg-day	4.43E-05
				m,p-Xylene	5.98E-05	mg/m^3	1.17E-05	mg/kg-day	2.86E-02	mg/kg-day	4.10E-04
				Methylene Chloride	1.68E-05	mg/m^3	3.29E-06	mg/kg-day	8.57E-01	mg/kg-day	3.84E-06
				Methyl-T-Butyl-ether	--	mg/m^3	--	mg/kg-day	8.57E-01	mg/kg-day	--
				Naphthalene	7.42E-06	mg/m^3	1.45E-06	mg/kg-day	8.57E-04	mg/kg-day	1.69E-03
				n-Butylbenzene	1.09E-05	mg/m^3	2.13E-06	mg/kg-day	1.14E-02	mg/kg-day	1.86E-04
				n-propylbenzene	5.54E-05	mg/m^3	1.08E-05	mg/kg-day	4.00E-02	mg/kg-day	2.71E-04
				o-Xylene	2.38E-05	mg/m^3	4.66E-06	mg/kg-day	2.86E-02	mg/kg-day	1.63E-04
				Phenanthrene	4.07E-08	mg/m^3	7.97E-09	mg/kg-day	3.00E-01	mg/kg-day	2.66E-08
				Pyrene	1.11E-08	mg/m^3	2.17E-09	mg/kg-day	3.00E-02	mg/kg-day	7.24E-08
				sec-Butylbenzene	2.26E-06	mg/m^3	4.43E-07	mg/kg-day	1.14E-02	mg/kg-day	3.88E-05
				tert-Butylbenzene	1.36E-06	mg/m^3	2.66E-07	mg/kg-day	1.14E-02	mg/kg-day	2.33E-05
				trans-1,2-Dichloroethene	1.18E-04	mg/m^3	2.30E-05	mg/kg-day	2.00E-02	mg/kg-day	1.15E-03
				Tetrachloroethene	5.93E-05	mg/m^3	1.16E-05	mg/kg-day	1.71E-01	mg/kg-day	6.77E-05
				Toluene	2.81E-05	mg/m^3	5.50E-06	mg/kg-day	1.14E-01	mg/kg-day	4.81E-05
				Trichloroethene	6.23E-03	mg/m^3	1.22E-03	mg/kg-day	1.00E-02	mg/kg-day	1.22E-01
				Vinyl chloride	5.58E-04	mg/m^3	1.09E-04	mg/kg-day	2.86E-02	mg/kg-day	3.82E-03
				Xylene (Total)	7.89E-05	mg/m^3	1.54E-05	mg/kg-day	2.86E-02	mg/kg-day	5.40E-04
			Exposure Route Total								**9.17E-01**
		Exposure Point Total									**9.17E-01**
	Exposure Medium Total										**9.17E-01**
Medium Total											**9.17E-01**
										Total of Receptor Hazards Across All Media	**2.16E+00**

TABLE F-7.1.6.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CONSTRUCTION WORKER
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Construction Worker
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	

Notes:

--	Not applicable or not available
EPA	U.S. Environmental Protection Agency
EPC	Exposure point concentration
ft bgs	Feet below ground surface
mg/kg	Milligram per kilogram
mg/kg-day	Milligram per kilogram per day
mg/m^3	Milligram per cubic meter
RAGS	Risk Assessment Guidelines for Superfund
RfD	Reference dose
RfC	Reference concentration
RI	Remedial Investigation
RME	Reasonable maximum expsoure
VOC	Volatile Organic Compound

(a) See the Vapor Intrusion to Indoor Air Evaluation for determination of the modeled indoor air concentration.

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs)	Soil	Site Soil	Ingestion	2,4-Dimethylphenol	4.30E-02	mg/kg	5.89E-08	mg/kg-day	2.00E-02	mg/kg-day	2.95E-06
				2-Butanone	2.40E-01	mg/kg	3.29E-07	mg/kg-day	6.00E-01	mg/kg-day	5.48E-07
				2-Methylnaphthalene	2.69E-01	mg/kg	3.69E-07	mg/kg-day	4.00E-03	mg/kg-day	9.22E-05
				4,4'-DDT	6.49E-03	mg/kg	8.89E-09	mg/kg-day	5.00E-04	mg/kg-day	1.78E-05
				4-Methyl-2-pentanone	4.50E-02	mg/kg	6.16E-08	mg/kg-day	8.00E-02	mg/kg-day	7.71E-07
				Acenaphthene	2.67E-01	mg/kg	3.66E-07	mg/kg-day	6.00E-02	mg/kg-day	6.10E-06
				Acenaphthylene	1.94E-02	mg/kg	2.66E-08	mg/kg-day	6.00E-02	mg/kg-day	4.44E-07
				Acetone	1.50E+00	mg/kg	2.05E-06	mg/kg-day	9.00E-01	mg/kg-day	2.28E-06
				alpha-Chlordane	1.86E-03	mg/kg	2.55E-09	mg/kg-day	5.00E-04	mg/kg-day	5.09E-06
				Aluminum	1.10E+04	mg/kg	1.51E-02	mg/kg-day	1.00E+00	mg/kg-day	1.51E-02
				Anthracene	5.40E-01	mg/kg	7.40E-07	mg/kg-day	3.00E-01	mg/kg-day	2.47E-06
				Antimony	5.00E+00	mg/kg	6.85E-06	mg/kg-day	4.00E-04	mg/kg-day	1.71E-02
				Aroclor-1260	1.01E+00	mg/kg	1.39E-06	mg/kg-day	2.00E-05	mg/kg-day	6.95E-02
				Arsenic	1.95E+01	mg/kg	2.68E-05	mg/kg-day	3.00E-04	mg/kg-day	8.92E-02
				Barium	2.06E+02	mg/kg	2.83E-04	mg/kg-day	7.00E-02	mg/kg-day	4.04E-03
				Benzene	1.87E+00	mg/kg	2.56E-06	mg/kg-day	4.00E-03	mg/kg-day	6.39E-04
				Benzo(a)anthracene	8.85E-01	mg/kg	1.21E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.12E+00	mg/kg	1.54E-06	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	7.80E-01	mg/kg	1.07E-06	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.88E-01	mg/kg	3.94E-07	mg/kg-day	3.00E-02	mg/kg-day	1.31E-05
				Benzo(k)fluoranthene	3.96E-01	mg/kg	5.43E-07	mg/kg-day	--	--	--
				Beryllium	1.90E+00	mg/kg	2.60E-06	mg/kg-day	2.00E-03	mg/kg-day	1.30E-03
				bis(2-ethylhexyl)phthalate	5.00E-02	mg/kg	6.85E-08	mg/kg-day	2.00E-02	mg/kg-day	3.42E-06
				Cadmium	1.30E+00	mg/kg	1.78E-06	mg/kg-day	5.00E-04	mg/kg-day	3.56E-03
				Carbazole	1.60E-01	mg/kg	2.19E-07	mg/kg-day	--	--	--
				Carbon disulfide	1.20E-02	mg/kg	1.64E-08	mg/kg-day	1.00E-01	mg/kg-day	1.64E-07
				Chlordane	1.49E-01	mg/kg	2.04E-07	mg/kg-day	5.00E-04	mg/kg-day	4.08E-04
				Chromium	4.50E+01	mg/kg	6.16E-05	mg/kg-day	1.50E+00	mg/kg-day	4.11E-05
				Chrysene	9.05E-01	mg/kg	1.24E-06	mg/kg-day	--	--	--
				Cobalt	7.51E+00	mg/kg	1.03E-05	mg/kg-day	2.00E-02	mg/kg-day	5.15E-04
				Copper	9.89E+01	mg/kg	1.36E-04	mg/kg-day	4.00E-02	mg/kg-day	3.39E-03
				Dibenzo(a,h)anthracene	6.74E-02	mg/kg	9.23E-08	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	1.64E-06	mg/kg-day	2.00E-03	mg/kg-day	8.22E-04
				Diethylphthalate	2.20E-02	mg/kg	3.01E-08	mg/kg-day	8.00E-01	mg/kg-day	3.77E-08
				di-n-Butylphthalate	1.30E-01	mg/kg	1.78E-07	mg/kg-day	1.00E-01	mg/kg-day	1.78E-06
				di-n-Octylphthalate	9.40E-02	mg/kg	1.29E-07	mg/kg-day	4.00E-02	mg/kg-day	3.22E-06
				Ethylbenzene	5.72E+00	mg/kg	7.84E-06	mg/kg-day	1.00E-01	mg/kg-day	7.84E-05
				Fluoranthene	3.09E+00	mg/kg	4.24E-06	mg/kg-day	4.00E-02	mg/kg-day	1.06E-04
				Fluorene	4.10E-01	mg/kg	5.61E-07	mg/kg-day	4.00E-02	mg/kg-day	1.40E-05
				gamma-BHC (Lindane)	1.90E-03	mg/kg	2.60E-09	mg/kg-day	3.00E-04	mg/kg-day	8.68E-06
				gamma-Chlordane	1.85E-03	mg/kg	2.53E-09	mg/kg-day	5.00E-04	mg/kg-day	5.06E-06

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Ingestion (continued)	Indeno(1,2,3-cd)pyrene	2.70E-01	mg/kg	3.70E-07	mg/kg-day	--	--	--
				Iron	2.48E+04	mg/kg	3.40E-02	mg/kg-day	3.00E-01	mg/kg-day	1.13E-01
				Lead	1.80E+03	mg/kg	2.47E-03	mg/kg-day	--	--	--
				m,p-Xylene	3.09E+00	mg/kg	4.24E-06	mg/kg-day	2.00E-01	mg/kg-day	2.12E-05
				Manganese	2.87E+02	mg/kg	3.94E-04	mg/kg-day	2.40E-02	mg/kg-day	1.64E-02
				Mercury	3.10E+00	mg/kg	4.25E-06	mg/kg-day	3.00E-04	mg/kg-day	1.42E-02
				Methylene chloride	9.40E-02	mg/kg	1.29E-07	mg/kg-day	6.00E-02	mg/kg-day	2.15E-06
				Methyl-T-Butyl-Ether	4.00E-03	mg/kg	5.48E-09	mg/kg-day	8.60E-01	mg/kg-day	6.37E-09
				Naphthalene	3.48E-01	mg/kg	4.76E-07	mg/kg-day	2.00E-02	mg/kg-day	2.38E-05
				Nickel	3.65E+01	mg/kg	5.00E-05	mg/kg-day	2.00E-02	mg/kg-day	2.50E-03
				n-Nitroso-diphenylamine	5.50E-01	mg/kg	7.53E-07	mg/kg-day	2.00E-02	mg/kg-day	3.77E-05
				o-Xylene	1.22E+00	mg/kg	1.66E-06	mg/kg-day	2.00E-01	mg/kg-day	8.32E-06
				Phenanthrene	2.25E+00	mg/kg	3.08E-06	mg/kg-day	3.00E-01	mg/kg-day	1.03E-05
				Pyrene	1.80E+00	mg/kg	2.46E-06	mg/kg-day	3.00E-02	mg/kg-day	8.20E-05
				Silver	2.40E+00	mg/kg	3.29E-06	mg/kg-day	5.00E-03	mg/kg-day	6.58E-04
				Thallium	4.60E+00	mg/kg	6.30E-06	mg/kg-day	6.60E-05	mg/kg-day	9.55E-02
				Titanium	4.78E+02	mg/kg	6.54E-04	mg/kg-day	4.00E+00	mg/kg-day	1.64E-04
				Toluene	2.26E+01	mg/kg	3.10E-05	mg/kg-day	2.00E-01	mg/kg-day	1.55E-04
				Vanadium	3.46E+01	mg/kg	4.74E-05	mg/kg-day	7.00E-03	mg/kg-day	6.77E-03
				Xylene (Total)	3.19E+01	mg/kg	4.37E-05	mg/kg-day	2.00E-01	mg/kg-day	2.19E-04
				Zinc	3.97E+02	mg/kg	5.44E-04	mg/kg-day	3.00E-01	mg/kg-day	1.81E-03
			Exposure Route Total								**4.58E-01**
			Dermal	2,4-Dimethylphenol	4.30E-02	mg/kg	2.4E-09	mg/kg-day	2.00E-02	mg/kg-day	1.18E-07
				2-Butanone	2.40E-01	mg/kg	1.3E-08	mg/kg-day	6.00E-01	mg/kg-day	2.19E-08
				2-Methylnaphthalene	2.69E-01	mg/kg	1.5E-08	mg/kg-day	4.00E-03	mg/kg-day	3.68E-06
				4,4'-DDT	6.49E-03	mg/kg	1.1E-09	mg/kg-day	5.00E-04	mg/kg-day	2.13E-06
				4-Methyl-2-pentanone	4.50E-02	mg/kg	2.5E-09	mg/kg-day	8.00E-02	mg/kg-day	3.07E-08
				Acenaphthene	2.67E-01	mg/kg	1.9E-07	mg/kg-day	6.00E-02	mg/kg-day	3.16E-06
				Acenaphthylene	1.94E-02	mg/kg	1.1E-09	mg/kg-day	6.00E-02	mg/kg-day	1.77E-08
				Acetone	1.50E+00	mg/kg	8.2E-08	mg/kg-day	9.00E-01	mg/kg-day	9.11E-08
				alpha-Chlordane	1.86E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Aluminum	1.10E+04	mg/kg	6.0E-05	mg/kg-day	1.00E+00	mg/kg-day	6.03E-05
				Anthracene	5.40E-01	mg/kg	3.8E-07	mg/kg-day	3.00E-01	mg/kg-day	1.28E-06
				Antimony	5.00E+00	mg/kg	2.7E-08	mg/kg-day	4.00E-04	mg/kg-day	6.83E-05
				Aroclor-1260	1.01E+00	mg/kg	7.8E-07	mg/kg-day	2.00E-05	mg/kg-day	3.88E-02
				Arsenic	1.95E+01	mg/kg	3.2E-06	mg/kg-day	3.00E-04	mg/kg-day	1.07E-02
				Barium	2.06E+02	mg/kg	1.1E-06	mg/kg-day	4.90E-03	mg/kg-day	2.30E-04
				Benzene	1.87E+00	mg/kg	1.0E-07	mg/kg-day	4.00E-03	mg/kg-day	2.55E-05
				Benzo(a)anthracene	8.85E-01	mg/kg	6.3E-07	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.12E+00	mg/kg	8.0E-07	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	7.80E-01	mg/kg	5.5E-07	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.88E-01	mg/kg	2.0E-07	mg/kg-day	3.00E-02	mg/kg-day	6.81E-06

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Benzo(k)fluoranthene	3.96E-01	mg/kg	2.8E-07	mg/kg-day	--	--	--
				Beryllium	1.90E+00	mg/kg	1.0E-08	mg/kg-day	1.40E-05	mg/kg-day	7.42E-04
				bis(2-ethylhexyl)phthalate	5.00E-02	mg/kg	2.7E-09	mg/kg-day	2.00E-02	mg/kg-day	1.37E-07
				Cadmium	1.30E+00	mg/kg	7.1E-09	mg/kg-day	5.00E-04	mg/kg-day	1.42E-05
				Carbazole	1.60E-01	mg/kg	8.7E-09	mg/kg-day	--	--	--
				Carbon disulfide	1.20E-02	mg/kg	1.6E-08	mg/kg-day	1.00E-01	mg/kg-day	1.64E-07
				Chlordane	1.49E-01	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Chromium	4.50E+01	mg/kg	2.5E-07	mg/kg-day	1.50E+00	mg/kg-day	1.64E-07
				Chrysene	9.05E-01	mg/kg	6.4E-07	mg/kg-day	--	--	--
				Cobalt	7.51E+00	mg/kg	4.1E-08	mg/kg-day	2.00E-02	mg/kg-day	2.05E-06
				Copper	9.89E+01	mg/kg	5.4E-07	mg/kg-day	4.00E-02	mg/kg-day	1.35E-05
				Dibenzo(a,h)anthracene	6.74E-02	mg/kg	4.8E-08	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	6.6E-08	mg/kg-day	2.00E-03	mg/kg-day	3.28E-05
				Diethylphthalate	2.20E-02	mg/kg	1.2E-09	mg/kg-day	8.00E-01	mg/kg-day	1.50E-09
				di-n-Butylphthalate	1.30E-01	mg/kg	7.1E-09	mg/kg-day	1.00E+01	mg/kg-day	7.11E-10
				di-n-Octylphthalate	9.40E-02	mg/kg	5.1E-09	mg/kg-day	4.00E-02	mg/kg-day	1.28E-07
				Ethylbenzene	5.72E+00	mg/kg	3.1E-07	mg/kg-day	1.00E-01	mg/kg-day	3.13E-06
				Fluoranthene	3.09E+00	mg/kg	2.2E-06	mg/kg-day	4.00E-02	mg/kg-day	5.49E-05
				Fluorene	4.10E-01	mg/kg	2.9E-07	mg/kg-day	4.00E-02	mg/kg-day	7.28E-06
				gamma-BHC (Lindane)	1.90E-03	mg/kg	4.2E-10	mg/kg-day	3.00E-04	mg/kg-day	1.38E-06
				gamma-Chlordane	1.85E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Indeno(1,2,3-cd)pyrene	2.70E-01	mg/kg	1.9E-07	mg/kg-day	--	--	--
				Iron	2.48E+04	mg/kg	1.4E-04	mg/kg-day	3.00E-01	mg/kg-day	4.52E-04
				Lead	1.80E+03	mg/kg	9.9E-06	mg/kg-day	--	--	--
				m,p-Xylene	3.09E+00	mg/kg	1.7E-07	mg/kg-day	2.00E-01	mg/kg-day	8.45E-07
				Manganese	2.87E+02	mg/kg	1.6E-06	mg/kg-day	2.40E-02	mg/kg-day	6.54E-05
				Mercury	3.10E+00	mg/kg	--	mg/kg-day	2.10E-05	mg/kg-day	--
				Methylene chloride	9.40E-02	mg/kg	5.1E-09	mg/kg-day	6.00E-02	mg/kg-day	8.56E-08
				Methyl-T-Butyl-Ether	4.00E-03	mg/kg	2.2E-10	mg/kg-day	8.60E-01	mg/kg-day	2.54E-10
				Naphthalene	3.48E-01	mg/kg	2.5E-07	mg/kg-day	2.00E-02	mg/kg-day	1.23E-05
				Nickel	3.65E+01	mg/kg	2.0E-07	mg/kg-day	8.00E-04	mg/kg-day	2.49E-04
				n-Nitroso-diphenylamine	5.50E-01	mg/kg	3.0E-08	mg/kg-day	2.00E-02	mg/kg-day	1.50E-06
				o-Xylene	1.22E+00	mg/kg	6.6E-08	mg/kg-day	2.00E-01	mg/kg-day	3.32E-07
				Phenanthrene	2.25E+00	mg/kg	1.2E-07	mg/kg-day	3.00E-01	mg/kg-day	4.10E-07
				Pyrene	1.80E+00	mg/kg	1.3E-06	mg/kg-day	3.00E-02	mg/kg-day	4.25E-05
				Silver	2.40E+00	mg/kg	1.3E-08	mg/kg-day	2.00E-04	mg/kg-day	6.56E-05
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.78E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Toluene	2.26E+01	mg/kg	1.2E-06	mg/kg-day	2.00E-01	mg/kg-day	6.18E-06

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Vanadium	3.46E+01	mg/kg	1.9E-07	mg/kg-day	1.82E-04	mg/kg-day	1.04E-03
				Xylene (Total)	3.19E+01	mg/kg	1.7E-06	mg/kg-day	2.00E-01	mg/kg-day	8.72E-06
				Zinc	3.97E+02	mg/kg	2.2E-06	mg/kg-day	3.00E-01	mg/kg-day	7.24E-06
			Exposure Route Total								**5.27E-02**
		Exposure Point Total									**5.10E-01**
		Homegrown Produce	Ingestion	2,4-Dimethylphenol	4.30E-02	mg/kg	2.4E-06	mg/kg-day	2.00E-02	mg/kg-day	1.19E-04
				2-Butanone	2.40E-01	mg/kg	--	mg/kg-day	6.00E-01	mg/kg-day	--
				2-Methylnaphthalene	2.69E-01	mg/kg	--	mg/kg-day	4.00E-03	mg/kg-day	--
				4,4'-DDT	6.49E-03	mg/kg	2.8E-10	mg/kg-day	5.00E-04	mg/kg-day	5.58E-07
				4-Methyl-2-pentanone	4.50E-02	mg/kg	--	mg/kg-day	8.00E-02	mg/kg-day	--
				Acenaphthene	2.67E-01	mg/kg	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Acenaphthylene	1.94E-02	mg/kg	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Acetone	1.50E+00	mg/kg	--	mg/kg-day	9.00E-01	mg/kg-day	--
				alpha-Chlordane	1.86E-03	mg/kg	3.6E-10	mg/kg-day	5.00E-04	mg/kg-day	7.11E-07
				Aluminum	1.10E+04	mg/kg	--	mg/kg-day	1.00E+00	mg/kg-day	--
				Anthracene	5.40E-01	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Antimony	5.00E+00	mg/kg	--	mg/kg-day	4.00E-04	mg/kg-day	--
				Aroclor-1260	1.01E+00	mg/kg	8.2E-08	mg/kg-day	2.00E-05	mg/kg-day	4.08E-03
				Arsenic	1.95E+01	mg/kg	9.9E-05	mg/kg-day	3.00E-04	mg/kg-day	3.30E-01
				Barium	2.06E+02	mg/kg	--	mg/kg-day	7.00E-02	mg/kg-day	--
				Benzene	1.87E+00	mg/kg	--	mg/kg-day	4.00E-03	mg/kg-day	--
				Benzo(a)anthracene	8.85E-01	mg/kg	7.3E-08	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.12E+00	mg/kg	6.1E-08	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	7.80E-01	mg/kg	5.0E-08	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.88E-01	mg/kg	--	mg/kg-day	3.00E-02	mg/kg-day	--
				Benzo(k)fluoranthene	3.96E-01	mg/kg	2.1E-08	mg/kg-day	--	--	--
				Beryllium	1.90E+00	mg/kg	--	mg/kg-day	2.00E-03	mg/kg-day	--
				bis(2-ethylhexyl)phthalate	5.00E-02	mg/kg	3.7E-11	mg/kg-day	2.00E-02	mg/kg-day	1.87E-09
				Cadmium	1.30E+00	mg/kg	8.3E-05	mg/kg-day	5.00E-04	mg/kg-day	1.67E-01
				Carbazole	1.60E-01	mg/kg	4.6E-06	mg/kg-day	--	--	--
				Carbon disulfide	1.20E-02	mg/kg	--	mg/kg-day	1.00E-01	mg/kg-day	--
				Chlordane	1.49E-01	mg/kg	2.9E-08	mg/kg-day	5.00E-04	mg/kg-day	5.70E-05
				Chromium	4.50E+01	mg/kg	--	mg/kg-day	1.50E+00	mg/kg-day	--
				Chrysene	9.05E-01	mg/kg	7.4E-08	mg/kg-day	--	--	--
				Cobalt	7.51E+00	mg/kg	--	mg/kg-day	2.00E-02	mg/kg-day	--
				Copper	9.89E+01	mg/kg	--	mg/kg-day	4.00E-02	mg/kg-day	--
				Dibenzo(a,h)anthracene	6.74E-02	mg/kg	2.4E-09	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	--	mg/kg-day	2.00E-03	mg/kg-day	--
				Diethylphthalate	2.20E-02	mg/kg	1.1E-06	mg/kg-day	8.00E-01	mg/kg-day	1.42E-06
				di-n-Butylphthalate	1.30E-01	mg/kg	2.1E-08	mg/kg-day	1.00E-01	mg/kg-day	2.14E-07

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Homegrown Produce (continued)	Ingestion (continued)	di-n-Octylphthalate	9.40E-02	mg/kg	2.6E-09	mg/kg-day	4.00E-02	mg/kg-day	6.51E-08
				Ethylbenzene	5.72E+00	mg/kg	--	mg/kg-day	1.00E-01	mg/kg-day	--
				Fluoranthene	3.09E+00	mg/kg	2.7E-07	mg/kg-day	4.00E-02	mg/kg-day	6.85E-06
				Fluorene	4.10E-01	mg/kg	--	mg/kg-day	4.00E-02	mg/kg-day	--
				gamma-BHC (Lindane)	1.90E-03	mg/kg	1.5E-07	mg/kg-day	3.00E-04	mg/kg-day	4.88E-04
				gamma-Chlordane	1.85E-03	mg/kg	3.5E-10	mg/kg-day	5.00E-04	mg/kg-day	7.07E-07
				Indeno(1,2,3-cd)pyrene	2.70E-01	mg/kg	1.3E-08	mg/kg-day	--	--	--
				Iron	2.48E+04	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Lead	1.80E+03	mg/kg	--	mg/kg-day	--	--	--
				m,p-Xylene	3.09E+00	mg/kg	--	mg/kg-day	2.00E-01	mg/kg-day	--
				Manganese	2.87E+02	mg/kg	--	mg/kg-day	2.40E-02	mg/kg-day	--
				Mercury	3.10E+00	mg/kg	2.4E-05	mg/kg-day	3.00E-04	mg/kg-day	8.09E-02
				Methylene chloride	9.40E-02	mg/kg	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Methyl-T-Butyl-Ether	4.00E-03	mg/kg	--	mg/kg-day	8.60E-01	mg/kg-day	--
				Naphthalene	3.48E-01	mg/kg	--	mg/kg-day	2.00E-02	mg/kg-day	--
				Nickel	3.65E+01	mg/kg	3.0E-04	mg/kg-day	2.00E-02	mg/kg-day	1.51E-02
				n-Nitroso-diphenylamine	5.50E-01	mg/kg	1.5E-05	mg/kg-day	2.00E-02	mg/kg-day	7.71E-04
				o-Xylene	1.22E+00	mg/kg	--	mg/kg-day	2.00E-01	mg/kg-day	--
				Phenanthrene	2.25E+00	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Pyrene	1.80E+00	mg/kg	--	mg/kg-day	3.00E-02	mg/kg-day	--
				Silver	2.40E+00	mg/kg	--	mg/kg-day	5.00E-03	mg/kg-day	--
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.78E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Toluene	2.26E+01	mg/kg	--	mg/kg-day	2.00E-01	mg/kg-day	--
				Vanadium	3.46E+01	mg/kg	--	mg/kg-day	7.00E-03	mg/kg-day	--
				Xylene (Total)	3.19E+01	mg/kg	--	mg/kg-day	2.00E-01	mg/kg-day	--
				Zinc	3.97E+02	mg/kg	1.3E-02	mg/kg-day	3.00E-01	mg/kg-day	4.38E-02
			Exposure Route Total								**6.42E-01**
		Exposure Point Total									**6.42E-01**
	Exposure Medium Total										**1.15E+00**
	Air	Outdoor Air	Inhalation (particulates or VOCs)	2,4-Dimethylphenol	3.26E-11	mg/m^3	8.9E-12	mg/kg-day	2.00E-02	mg/kg-day	4.44E-10
				2-Butanone	1.26E-05	mg/m^3	3.4E-06	mg/kg-day	1.43E+00	mg/kg-day	2.41E-06
				2-Methylnaphthalene	1.90E-06	mg/m^3	5.2E-07	mg/kg-day	--	--	--
				4,4'-DDT	4.92E-12	mg/m^3	1.3E-12	mg/kg-day	5.00E-04	mg/kg-day	2.68E-09
				4-Methyl-2-pentanone	1.80E-06	mg/m^3	4.9E-07	mg/kg-day	8.60E-01	mg/kg-day	5.71E-07
				Acenaphthene	1.48E-06	mg/m^3	4.0E-07	mg/kg-day	6.00E-02	mg/kg-day	6.75E-06
				Acenaphthylene	1.08E-07	mg/m^3	2.9E-08	mg/kg-day	6.00E-02	mg/kg-day	4.91E-07
				Acetone	1.19E-04	mg/m^3	3.2E-05	mg/kg-day	9.00E-01	mg/kg-day	3.61E-05
				alpha-Chlordane	1.41E-12	mg/m^3	3.8E-13	mg/kg-day	2.00E-04	mg/kg-day	1.92E-09
				Aluminum	8.36E-06	mg/m^3	2.3E-06	mg/kg-day	1.43E-03	mg/kg-day	1.60E-03
				Anthracene	7.72E-07	mg/m^3	2.1E-07	mg/kg-day	3.00E-01	mg/kg-day	7.02E-07

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Air (continued)	Outdoor Air (continued)	Inhalation (particulates or VOCs) (continued)	Antimony	3.79E-09	mg/m^3	1.0E-09	mg/kg-day	--	--	--
				Aroclor-1260	7.69E-10	mg/m^3	2.1E-10	mg/kg-day	2.00E-05	mg/kg-day	1.05E-05
				Arsenic	1.48E-08	mg/m^3	4.0E-09	mg/kg-day	--	mg/kg-day	--
				Barium	1.56E-07	mg/m^3	4.3E-08	mg/kg-day	1.40E-04	mg/kg-day	3.05E-04
				Benzene	6.91E-04	mg/m^3	1.9E-04	mg/kg-day	8.57E-03	mg/kg-day	2.20E-02
				Benzo(a)anthracene	6.70E-10	mg/m^3	1.8E-10	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.52E-10	mg/m^3	2.3E-10	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	5.91E-10	mg/m^3	1.6E-10	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.18E-10	mg/m^3	5.9E-11	mg/kg-day	3.00E-02	mg/kg-day	1.98E-09
				Benzo(k)fluoranthene	3.00E-10	mg/m^3	8.2E-11	mg/kg-day	--	--	--
				Beryllium	1.44E-09	mg/m^3	3.9E-10	mg/kg-day	5.71E-06	mg/kg-day	6.87E-05
				bis(2-ethylhexyl)phthalate	3.79E-11	mg/m^3	1.0E-11	mg/kg-day	2.20E-02	mg/kg-day	4.70E-10
				Cadmium	9.85E-10	mg/m^3	2.7E-10	mg/kg-day	--	mg/kg-day	--
				Carbazole	1.21E-10	mg/m^3	3.3E-11	mg/kg-day	--	--	--
				Carbon disulfide	1.00E-05	mg/m^3	2.7E-06	mg/kg-day	2.00E-01	mg/kg-day	1.36E-05
				Chlordane	1.13E-10	mg/m^3	3.1E-11	mg/kg-day	2.00E-04	mg/kg-day	1.54E-07
				Chromium	3.41E-08	mg/m^3	9.3E-09	mg/kg-day	--	--	--
				Chrysene	6.86E-10	mg/m^3	1.9E-10	mg/kg-day	--	--	--
				Cobalt	5.69E-09	mg/m^3	1.6E-09	mg/kg-day	5.71E-06	mg/kg-day	2.72E-04
				Copper	7.49E-08	mg/m^3	2.0E-08	mg/kg-day	--	--	--
				Dibenzo(a,h)anthracene	5.10E-11	mg/m^3	1.4E-11	mg/kg-day	--	--	--
				Dibenzofuran	1.85E-06	mg/m^3	5.0E-07	mg/kg-day	2.00E-03	mg/kg-day	2.52E-04
				Diethylphthalate	1.67E-11	mg/m^3	4.5E-12	mg/kg-day	8.00E-01	mg/kg-day	5.68E-12
				di-n-Butylphthalate	9.85E-11	mg/m^3	2.7E-11	mg/kg-day	--	--	--
				di-n-Octylphthalate	7.12E-11	mg/m^3	1.9E-11	mg/kg-day	4.00E-02	mg/kg-day	4.86E-10
				Ethylbenzene	1.06E-03	mg/m^3	2.9E-04	mg/kg-day	2.86E-01	mg/kg-day	1.01E-03
				Fluoranthene	2.34E-09	mg/m^3	6.4E-10	mg/kg-day	4.00E-02	mg/kg-day	1.60E-08
				Fluorene	1.14E-06	mg/m^3	3.1E-07	mg/kg-day	4.00E-02	mg/kg-day	7.77E-06
				gamma-BHC (Lindane)	1.44E-12	mg/m^3	3.9E-13	mg/kg-day	3.00E-04	mg/kg-day	1.31E-09
				gamma-Chlordane	1.40E-12	mg/m^3	3.8E-13	mg/kg-day	2.00E-04	mg/kg-day	1.91E-09
				Indeno(1,2,3-cd)pyrene	2.04E-10	mg/m^3	5.6E-11	mg/kg-day	--	--	--
				Iron	1.88E-05	mg/m^3	5.1E-06	mg/kg-day	--	--	--
				Lead	1.37E-06	mg/m^3	3.7E-07	mg/kg-day	--	--	--
				m,p-Xylene	5.07E-04	mg/m^3	1.4E-04	mg/kg-day	2.86E-02	mg/kg-day	4.84E-03
				Manganese	2.18E-07	mg/m^3	5.9E-08	mg/kg-day	1.43E-05	mg/kg-day	4.16E-03
				Mercury	2.35E-09	mg/m^3	6.4E-10	mg/kg-day	--	mg/kg-day	--
				Methylene chloride	3.78E-05	mg/m^3	1.0E-05	mg/kg-day	8.57E-01	mg/kg-day	1.20E-05
				Methyl-T-Butyl-Ether	8.51E-07	mg/m^3	2.3E-07	mg/kg-day	8.57E-01	mg/kg-day	2.71E-07
				Naphthalene	8.08E-06	mg/m^3	2.2E-06	mg/kg-day	8.57E-04	mg/kg-day	2.57E-03
				Nickel	2.76E-08	mg/m^3	7.5E-09	mg/kg-day	5.71E-05	mg/kg-day	1.32E-04
				n-Nitroso-diphenylamine	4.17E-10	mg/m^3	1.1E-10	mg/kg-day	2.00E-02	mg/kg-day	5.68E-09

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Air (continued)	Outdoor Air (continued)	Inhalation (particulates or VOCs) (continued)	o-Xylene	1.99E-04	mg/m^3	5.4E-05	mg/kg-day	2.86E-02	mg/kg-day	1.90E-03
				Phenanthrene	1.50E-06	mg/m^3	4.1E-07	mg/kg-day	3.00E-01	mg/kg-day	1.37E-06
				Pyrene	4.73E-07	mg/m^3	1.3E-07	mg/kg-day	3.00E-02	mg/kg-day	4.30E-06
				Silver	1.82E-09	mg/m^3	5.0E-10	mg/kg-day	--	--	--
				Thallium	3.48E-09	mg/m^3	9.5E-10	mg/kg-day	--	--	--
				Titanium	3.62E-07	mg/m^3	9.9E-08	mg/kg-day	8.60E-03	mg/kg-day	1.15E-05
				Toluene	5.65E-03	mg/m^3	1.5E-03	mg/kg-day	1.14E-01	mg/kg-day	1.35E-02
				Vanadium	2.62E-08	mg/m^3	7.1E-09	mg/kg-day	--	--	--
				Xylene (Total)	5.23E-03	mg/m^3	1.4E-03	mg/kg-day	2.86E-02	mg/kg-day	5.00E-02
				Zinc	3.01E-07	mg/m^3	8.2E-08	mg/kg-day	--	mg/kg-day	--
			Exposure Route Total								**1.03E-01**
		Exposure Point Total									**1.03E-01**
	Exposure Medium Total										**1.03E-01**
Medium Total											**1.26E+00**
Groundwater	Groundwater	Domestic Use of Groundwater	Ingestion	1,1,1-Trichloroethane	2.23E-02	mg/L	6.11E-04	mg/kg-day	2.80E-01	mg/kg-day	2.18E-03
				1,1,2-Trichloroethane	1.06E-02	mg/L	2.90E-04	mg/kg-day	4.00E-03	mg/kg-day	7.24E-02
				1,1-Dichlorethane	1.08E-01	mg/L	2.96E-03	mg/kg-day	1.00E-01	mg/kg-day	2.96E-02
				1,1-Dichlorethene	5.89E-01	mg/L	1.61E-02	mg/kg-day	5.00E-02	mg/kg-day	3.23E-01
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	3.10E-04	mg/kg-day	5.00E-02	mg/kg-day	6.20E-03
				1,2-Dichlorobenzene	1.34E-02	mg/L	3.66E-04	mg/kg-day	9.00E-02	mg/kg-day	4.07E-03
				1,2-Dichlorethane	1.25E-02	mg/L	3.42E-04	mg/kg-day	2.00E-02	mg/kg-day	1.71E-02
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	8.04E-03	mg/kg-day	1.00E-02	mg/kg-day	8.04E-01
				1,2-Dichloropropane	1.00E-04	mg/L	2.74E-06	mg/kg-day	1.10E-03	mg/kg-day	2.49E-03
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	2.91E-04	mg/kg-day	5.00E-02	mg/kg-day	5.82E-03
				1,3-Dichlorobenzene	4.50E-03	mg/L	1.23E-04	mg/kg-day	9.00E-04	mg/kg-day	1.37E-01
				1,4-Dichlorobenzene	6.42E-03	mg/L	1.76E-04	mg/kg-day	3.00E-02	mg/kg-day	5.86E-03
				2-Butanone	7.10E-02	mg/L	1.95E-03	mg/kg-day	6.00E-01	mg/kg-day	3.24E-03
				2-Hexanone	2.00E-03	mg/L	5.48E-05	mg/kg-day	8.00E-02	mg/kg-day	6.85E-04
				2-Methylnaphthalene	7.00E-04	mg/L	1.92E-05	mg/kg-day	4.00E-03	mg/kg-day	4.79E-03
				4-Methyl-2-pentanone	2.90E-02	mg/L	7.95E-04	mg/kg-day	8.00E-02	mg/kg-day	9.93E-03
				Acenaphthene	2.00E-03	mg/L	5.48E-05	mg/kg-day	6.00E-02	mg/kg-day	9.13E-04
				Acenaphthylene	2.00E-03	mg/L	5.48E-05	mg/kg-day	6.00E-02	mg/kg-day	9.13E-04
				Acetone	1.65E+00	mg/L	4.53E-02	mg/kg-day	9.00E-01	mg/kg-day	5.03E-02
				Aluminum	9.88E-01	mg/L	2.71E-02	mg/kg-day	1.00E+00	mg/kg-day	2.71E-02
				Antimony	1.43E-02	mg/L	3.91E-04	mg/kg-day	4.00E-04	mg/kg-day	9.79E-01
				Arsenic	1.98E-02	mg/L	5.43E-04	mg/kg-day	3.00E-04	mg/kg-day	1.81E+00
				Barium	2.70E-01	mg/L	7.39E-03	mg/kg-day	7.00E-02	mg/kg-day	1.06E-01
				Benzene	1.59E-02	mg/L	4.35E-04	mg/kg-day	4.00E-03	mg/kg-day	1.09E-01
				Benzo(a)anthracene	1.00E-04	mg/L	2.74E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.00E-04	mg/L	2.74E-06	mg/kg-day	--	--	--
				Beryllium	1.41E-03	mg/L	3.87E-05	mg/kg-day	2.00E-03	mg/kg-day	1.94E-02
				bis(2-ethylhexyl)phthalate	7.09E-03	mg/L	1.94E-04	mg/kg-day	2.00E-02	mg/kg-day	9.72E-03

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Ingestion (continued)	Bromodichloromethane	7.10E-03	mg/L	1.95E-04	mg/kg-day	2.00E-02	mg/kg-day	9.73E-03
				Cadmium	1.60E-02	mg/L	4.39E-04	mg/kg-day	5.00E-04	mg/kg-day	8.78E-01
				Carbon disulfide	7.53E-03	mg/L	2.06E-04	mg/kg-day	1.00E-01	mg/kg-day	2.06E-03
				Chlorobenzene	6.07E-03	mg/L	1.66E-04	mg/kg-day	2.00E-02	mg/kg-day	8.32E-03
				Chloroethane	1.23E-02	mg/L	3.38E-04	mg/kg-day	4.00E-01	mg/kg-day	8.46E-04
				Chloroform	7.44E-03	mg/L	2.04E-04	mg/kg-day	1.00E-02	mg/kg-day	2.04E-02
				Chloromethane	7.26E-03	mg/L	1.99E-04	mg/kg-day	2.60E-02	mg/kg-day	7.65E-03
				Chromium	1.52E-01	mg/L	4.16E-03	mg/kg-day	1.50E+00	mg/kg-day	2.78E-03
				Chromium (VI)	4.72E-01	mg/L	1.29E-02	mg/kg-day	3.00E-03	mg/kg-day	4.31E+00
				cis-1,2-Dichloroethene	5.55E-02	mg/L	1.52E-03	mg/kg-day	1.00E-02	mg/kg-day	1.52E-01
				Cobalt	1.51E-02	mg/L	4.14E-04	mg/kg-day	2.00E-02	mg/kg-day	2.07E-02
				Copper	1.24E-02	mg/L	3.39E-04	mg/kg-day	4.00E-02	mg/kg-day	8.48E-03
				Cyanide	6.60E-02	mg/L	1.81E-03	mg/kg-day	2.00E-02	mg/kg-day	9.04E-02
				Ethylbenzene	7.18E-03	mg/L	1.97E-04	mg/kg-day	1.00E-01	mg/kg-day	1.97E-03
				Fluoranthene	1.80E-03	mg/L	4.93E-05	mg/kg-day	4.00E-02	mg/kg-day	1.23E-03
				Fluorene	1.00E-03	mg/L	2.74E-05	mg/kg-day	4.00E-02	mg/kg-day	6.85E-04
				Hexachlorobutadiene	4.00E-04	mg/L	1.10E-05	mg/kg-day	3.00E-04	mg/kg-day	3.65E-02
				Iron	1.70E+01	mg/L	4.65E-01	mg/kg-day	3.00E-01	mg/kg-day	1.55E+00
				Isopropylbenzene	5.50E-03	mg/L	1.51E-04	mg/kg-day	1.00E-01	mg/kg-day	1.51E-03
				Lead	7.38E-03	mg/L	2.02E-04	mg/kg-day	--	--	--
				m,p-Xylene	1.32E-02	mg/L	3.63E-04	mg/kg-day	2.00E-01	mg/kg-day	1.81E-03
				Manganese	9.91E+00	mg/L	2.71E-01	mg/kg-day	2.40E-02	mg/kg-day	1.13E+01
				Mercury	4.40E-05	mg/L	1.21E-06	mg/kg-day	3.00E-04	mg/kg-day	4.02E-03
				Methylene chloride	9.90E-03	mg/L	2.71E-04	mg/kg-day	6.00E-02	mg/kg-day	4.52E-03
				Methyl-T-Butyl-Ether	6.97E-03	mg/L	1.91E-04	mg/kg-day	8.60E-01	mg/kg-day	2.22E-04
				Molybdenum	7.50E-02	mg/L	2.05E-03	mg/kg-day	5.00E-03	mg/kg-day	4.11E-01
				Naphthalene	3.35E-02	mg/L	9.17E-04	mg/kg-day	2.00E-02	mg/kg-day	4.59E-02
				n-Butylbenzene	2.40E-03	mg/L	6.58E-05	mg/kg-day	4.00E-02	mg/kg-day	1.64E-03
				Nickel	1.83E-01	mg/L	5.01E-03	mg/kg-day	2.00E-02	mg/kg-day	2.50E-01
				n-Propylbenzene	1.22E-02	mg/L	3.35E-04	mg/kg-day	--	mg/kg-day	--
				o-Xylene	6.86E-03	mg/L	1.88E-04	mg/kg-day	2.00E-01	mg/kg-day	9.40E-04
				Phenanthrene	2.00E-03	mg/L	5.48E-05	mg/kg-day	3.00E-01	mg/kg-day	1.83E-04
				Phenol	6.60E-03	mg/L	1.81E-04	mg/kg-day	3.00E-01	mg/kg-day	6.02E-04
				p-Isopropyltoluene	8.00E-04	mg/L	2.19E-05	mg/kg-day	--	mg/kg-day	--
				Pyrene	3.00E-03	mg/L	8.22E-05	mg/kg-day	3.00E-02	mg/kg-day	2.74E-03
				sec-Butylbenzene	5.00E-04	mg/L	1.37E-05	mg/kg-day	4.00E-02	mg/kg-day	3.42E-04
				Selenium	1.08E-02	mg/L	2.96E-04	mg/kg-day	5.00E-03	mg/kg-day	5.92E-02
				Silver	5.48E-03	mg/L	1.50E-04	mg/kg-day	5.00E-03	mg/kg-day	3.00E-02
				Tert-Butanol	4.21E-01	mg/L	1.15E-02	mg/kg-day	--	mg/kg-day	--
				tert-Butylbenzene	3.00E-04	mg/L	8.22E-06	mg/kg-day	4.00E-02	mg/kg-day	2.05E-04
				Tetrachloroethene	5.84E-03	mg/L	1.60E-04	mg/kg-day	1.00E-02	mg/kg-day	1.60E-02
				Thallium	8.12E-03	mg/L	2.22E-04	mg/kg-day	6.60E-05	mg/kg-day	3.37E+00

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Ingestion (continued)	Toluene	6.35E-03	mg/L	1.74E-04	mg/kg-day	2.00E-01	mg/kg-day	8.70E-04
				trans-1,2-Dichloroethene	1.16E-02	mg/L	3.18E-04	mg/kg-day	2.00E-02	mg/kg-day	1.59E-02
				Trichloroethene	1.00E+00	mg/L	2.74E-02	mg/kg-day	3.00E-04	mg/kg-day	9.14E+01
				Vanadium	2.85E-02	mg/L	7.82E-04	mg/kg-day	7.00E-03	mg/kg-day	1.12E-01
				Vinyl chloride	2.54E-02	mg/L	6.95E-04	mg/kg-day	3.00E-03	mg/kg-day	2.32E-01
				Xylene (Total)	1.75E-02	mg/L	4.79E-04	mg/kg-day	2.00E-01	mg/kg-day	2.40E-03
				Zinc	1.50E-01	mg/L	4.10E-03	mg/kg-day	3.00E-01	mg/kg-day	1.37E-02
			Exposure Route Total								**1.19E+02**
			Dermal (bathing/ showering)	1,1,1-Trichloroethane	2.23E-02	mg/L	5.46E-05	mg/kg-day	2.80E-01	mg/kg-day	1.95E-04
				1,1,2-Trichloroethane	1.06E-02	mg/L	9.72E-06	mg/kg-day	4.00E-03	mg/kg-day	2.43E-03
				1,1-Dichlorethane	1.08E-01	mg/L	1.37E-04	mg/kg-day	1.00E-01	mg/kg-day	1.37E-03
				1,1-Dichlorethene	5.89E-01	mg/L	1.34E-03	mg/kg-day	5.00E-02	mg/kg-day	2.68E-02
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	1.53E-04	mg/kg-day	5.00E-02	mg/kg-day	3.05E-03
				1,2-Dichlorobenzene	1.34E-02	mg/L	1.26E-04	mg/kg-day	9.00E-02	mg/kg-day	1.40E-03
				1,2-Dichlorethane	1.25E-02	mg/L	9.53E-06	mg/kg-day	2.00E-02	mg/kg-day	4.77E-04
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	6.26E-04	mg/kg-day	1.00E-02	mg/kg-day	6.26E-02
				1,2-Dichloropropane	1.00E-04	mg/L	1.42E-07	mg/kg-day	1.10E-03	mg/kg-day	1.29E-04
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	1.43E-04	mg/kg-day	5.00E-02	mg/kg-day	2.87E-03
				1,3-Dichlorobenzene	4.50E-03	mg/L	4.99E-05	mg/kg-day	9.00E-04	mg/kg-day	5.54E-02
				1,4-Dichlorobenzene	6.42E-03	mg/L	5.69E-05	mg/kg-day	3.00E-02	mg/kg-day	1.90E-03
				2-Butanone	7.10E-02	mg/L	1.13E-05	mg/kg-day	6.00E-01	mg/kg-day	1.88E-05
				2-Hexanone	2.00E-03	mg/L	1.27E-06	mg/kg-day	8.00E-02	mg/kg-day	1.59E-05
				2-Methylnaphthalene	7.00E-04	mg/L	1.42E-05	mg/kg-day	4.00E-03	mg/kg-day	3.55E-03
				4-Methyl-2-pentanone	2.90E-02	mg/L	1.65E-05	mg/kg-day	8.00E-02	mg/kg-day	2.06E-04
				Acenaphthene	2.00E-03	mg/L	3.80E-05	mg/kg-day	6.00E-02	mg/kg-day	6.34E-04
				Acenaphthylene	2.00E-03	mg/L	4.03E-05	mg/kg-day	6.00E-02	mg/kg-day	6.72E-04
				Acetone	1.65E+00	mg/L	1.35E-04	mg/kg-day	9.00E-01	mg/kg-day	1.50E-04
				Aluminum	9.88E-01	mg/L	3.02E-04	mg/kg-day	1.00E+00	mg/kg-day	3.02E-04
				Antimony	1.43E-02	mg/L	2.23E-06	mg/kg-day	4.00E-04	mg/kg-day	5.57E-03
				Arsenic	1.98E-02	mg/L	5.47E-06	mg/kg-day	3.00E-04	mg/kg-day	1.82E-02
				Barium	2.70E-01	mg/L	1.55E-05	mg/kg-day	4.90E-03	mg/kg-day	3.17E-03
				Benzene	1.59E-02	mg/L	4.71E-05	mg/kg-day	4.00E-03	mg/kg-day	1.18E-02
				Benzo(a)anthracene	1.00E-04	mg/L	1.36E-05	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.00E-04	mg/L	1.77E-05	mg/kg-day	--	--	--
				Beryllium	1.41E-03	mg/L	1.33E-07	mg/kg-day	1.40E-05	mg/kg-day	9.53E-03
				bis(2-ethylhexyl)phthalate	7.09E-03	mg/L	2.00E-03	mg/kg-day	2.00E-02	mg/kg-day	9.99E-02
				Bromodichloromethane	7.10E-03	mg/L	5.10E-06	mg/kg-day	2.00E-02	mg/kg-day	2.55E-04
				Cadmium	1.60E-02	mg/L	8.02E-07	mg/kg-day	5.00E-04	mg/kg-day	1.60E-03
				Carbon disulfide	7.53E-03	mg/L	1.68E-05	mg/kg-day	1.00E-01	mg/kg-day	1.68E-04
				Chlorobenzene	6.07E-03	mg/L	3.54E-05	mg/kg-day	2.00E-02	mg/kg-day	1.77E-03
				Chloroethane	1.23E-02	mg/L	1.41E-05	mg/kg-day	4.00E-01	mg/kg-day	3.52E-05
				Chloroform	7.44E-03	mg/L	9.49E-06	mg/kg-day	1.00E-02	mg/kg-day	9.49E-04

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Dermal (bathing/ showering) (continued)	Chloromethane	7.26E-03	mg/L	4.31E-06	mg/kg-day	2.60E-02	mg/kg-day	1.66E-04
				Chromium	1.52E-01	mg/L	2.17E-05	mg/kg-day	1.50E+00	mg/kg-day	1.45E-05
				Chromium (VI)	4.72E-01	mg/L	6.75E-05	mg/kg-day	3.00E-03	mg/kg-day	2.25E-02
				cis-1,2-Dichloroethene	5.55E-02	mg/L	1.18E-04	mg/kg-day	1.00E-02	mg/kg-day	1.18E-02
				Cobalt	1.51E-02	mg/L	2.62E-06	mg/kg-day	2.00E-02	mg/kg-day	1.31E-04
				Copper	1.24E-02	mg/L	5.44E-07	mg/kg-day	4.00E-02	mg/kg-day	1.36E-05
				Cyanide	6.60E-02	mg/L	8.17E-06	mg/kg-day	2.00E-02	mg/kg-day	4.09E-04
				Ethylbenzene	7.18E-03	mg/L	7.59E-05	mg/kg-day	1.00E-01	mg/kg-day	7.59E-04
				Fluoranthene	1.80E-03	mg/L	1.32E-04	mg/kg-day	4.00E-02	mg/kg-day	3.30E-03
				Fluorene	1.00E-03	mg/L	2.45E-05	mg/kg-day	4.00E-02	mg/kg-day	6.11E-04
				Hexachlorobutadiene	4.00E-04	mg/L	6.92E-06	mg/kg-day	3.00E-04	mg/kg-day	2.31E-02
				Iron	1.70E+01	mg/L	6.00E-04	mg/kg-day	3.00E-01	mg/kg-day	2.00E-03
				Isopropylbenzene	5.50E-03	mg/L	1.10E-04	mg/kg-day	1.00E-01	mg/kg-day	1.10E-03
				Lead	7.38E-03	mg/L	3.61E-07	mg/kg-day	--	--	--
				m,p-Xylene	1.32E-02	mg/L	1.52E-04	mg/kg-day	2.00E-01	mg/kg-day	7.59E-04
				Manganese	9.91E+00	mg/L	1.81E-03	mg/kg-day	2.40E-02	mg/kg-day	7.56E-02
				Mercury	4.40E-05	mg/L	6.29E-09	mg/kg-day	2.10E-05	mg/kg-day	3.00E-04
				Methylene chloride	9.90E-03	mg/L	6.32E-06	mg/kg-day	6.00E-02	mg/kg-day	1.05E-04
				Methyl-T-Butyl-Ether	6.97E-03	mg/L	2.56E-06	mg/kg-day	8.60E-01	mg/kg-day	2.98E-06
				Molybdenum	7.50E-02	mg/L	7.72E-06	mg/kg-day	5.00E-03	mg/kg-day	1.54E-03
				Naphthalene	3.35E-02	mg/L	3.32E-04	mg/kg-day	2.00E-02	mg/kg-day	1.66E-02
				n-Butylbenzene	2.40E-03	mg/L	4.81E-05	mg/kg-day	4.00E-02	mg/kg-day	1.20E-03
				Nickel	1.83E-01	mg/L	8.60E-06	mg/kg-day	8.00E-04	mg/kg-day	1.08E-02
				n-Propylbenzene	1.22E-02	mg/L	2.45E-04	mg/kg-day	--	mg/kg-day	--
				o-Xylene	6.86E-03	mg/L	6.91E-05	mg/kg-day	2.00E-01	mg/kg-day	3.45E-04
				Phenanthrene	2.00E-03	mg/L	6.55E-05	mg/kg-day	3.00E-01	mg/kg-day	2.18E-04
				Phenol	6.60E-03	mg/L	5.22E-06	mg/kg-day	3.00E-01	mg/kg-day	1.74E-05
				p-Isopropyltoluene	8.00E-04	mg/L	1.60E-05	mg/kg-day	--	mg/kg-day	--
				Pyrene	3.00E-03	mg/L	1.39E-04	mg/kg-day	3.00E-02	mg/kg-day	4.63E-03
				sec-Butylbenzene	5.00E-04	mg/L	1.00E-05	mg/kg-day	--	mg/kg-day	--
				Selenium	1.08E-02	mg/L	1.40E-06	mg/kg-day	1.50E-03	mg/kg-day	9.30E-04
				Silver	5.48E-03	mg/L	4.77E-07	mg/kg-day	2.00E-04	mg/kg-day	2.39E-03
				Tert-Butanol	4.21E-01	mg/L	1.14E-04	mg/kg-day	--	mg/kg-day	--
				tert-Butylbenzene	3.00E-04	mg/L	6.01E-06	mg/kg-day	4.00E-02	mg/kg-day	1.50E-04
				Tetrachloroethene	5.84E-03	mg/L	4.02E-05	mg/kg-day	1.00E-02	mg/kg-day	4.02E-03
				Thallium	8.12E-03	mg/L	1.16E-06	mg/kg-day	6.60E-05	mg/kg-day	1.76E-02
				Toluene	6.35E-03	mg/L	4.11E-05	mg/kg-day	2.00E-01	mg/kg-day	2.06E-04
				trans-1,2-Dichloroethene	1.16E-02	mg/L	7.98E-05	mg/kg-day	2.00E-02	mg/kg-day	3.99E-03
				Trichloroethene	1.00E+00	mg/L	2.25E-03	mg/kg-day	3.00E-04	mg/kg-day	7.49E+00

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Dermal (bathing/ showering) (continued)	Vanadium	2.85E-02	mg/L	5.51E-06	mg/kg-day	1.82E-04	mg/kg-day	3.03E-02
				Vinyl chloride	2.54E-02	mg/L	4.10E-05	mg/kg-day	3.00E-03	mg/kg-day	1.37E-02
				Xylene (Total)	1.75E-02	mg/L	2.01E-04	mg/kg-day	2.00E-01	mg/kg-day	1.00E-03
				Zinc	1.50E-01	mg/L	7.32E-06	mg/kg-day	3.00E-01	mg/kg-day	2.44E-05
			Exposure Route Total								**8.06E+00**
		Exposure Point Total									**1.27E+02**
	Exposure Medium Total										**1.27E+02**
	Air	Domestic Use of Groundwater Indoors	Inhalation (bathing/ showering)	1,1,1-Trichloroethane	2.23E-02	mg/L	7.36E-05	mg/kg-day	6.30E-01	mg/kg-day	1.17E-04
				1,1,2-Trichloroethane	1.06E-02	mg/L	3.49E-05	mg/kg-day	4.00E-03	mg/kg-day	8.72E-03
				1,1-Dichlorethane	1.08E-01	mg/L	3.57E-04	mg/kg-day	1.40E-01	mg/kg-day	2.55E-03
				1,1-Dichlorethene	5.89E-01	mg/L	1.94E-03	mg/kg-day	5.71E-02	mg/kg-day	3.40E-02
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	3.73E-05	mg/kg-day	1.70E-03	mg/kg-day	2.19E-02
				1,2-Dichlorobenzene	1.34E-02	mg/L	4.41E-05	mg/kg-day	5.70E-02	mg/kg-day	7.73E-04
				1,2-Dichlorethane	1.25E-02	mg/L	4.11E-05	mg/kg-day	6.86E-01	mg/kg-day	6.00E-05
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	9.68E-04	mg/kg-day	1.00E-02	mg/kg-day	9.68E-02
				1,2-Dichloropropane	1.00E-04	mg/L	3.30E-07	mg/kg-day	1.10E-03	mg/kg-day	3.00E-04
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	3.50E-05	mg/kg-day	1.70E-03	mg/kg-day	2.06E-02
				1,3-Dichlorobenzene	4.50E-03	mg/L	1.48E-05	mg/kg-day	3.00E-02	mg/kg-day	4.95E-04
				1,4-Dichlorobenzene	6.42E-03	mg/L	2.12E-05	mg/kg-day	2.29E-01	mg/kg-day	9.26E-05
				2-Butanone	7.10E-02	mg/L	2.34E-04	mg/kg-day	1.43E+00	mg/kg-day	1.64E-04
				2-Hexanone	2.00E-03	mg/L	6.59E-06	mg/kg-day	8.60E-01	mg/kg-day	7.67E-06
				2-MethylNaphthalene	7.00E-04	mg/L	2.31E-06	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	2.90E-02	mg/L	9.56E-05	mg/kg-day	8.60E-01	mg/kg-day	1.11E-04
				Acenaphthene	2.00E-03	mg/L	6.59E-06	mg/kg-day	6.00E-02	mg/kg-day	1.10E-04
				Acenaphthylene	2.00E-03	mg/L	6.59E-06	mg/kg-day	6.00E-02	mg/kg-day	1.10E-04
				Acetone	1.65E+00	mg/L	5.45E-03	mg/kg-day	9.00E-01	mg/kg-day	6.06E-03
				Benzene	1.59E-02	mg/L	5.24E-05	mg/kg-day	8.57E-03	mg/kg-day	6.11E-03
				Bromodichloromethane	7.10E-03	mg/L	2.34E-05	mg/kg-day	2.00E-02	mg/kg-day	1.17E-03
				Carbon disulfide	7.53E-03	mg/L	2.48E-05	mg/kg-day	2.00E-01	mg/kg-day	1.24E-04
				Chlorobenzene	6.07E-03	mg/L	2.00E-05	mg/kg-day	1.71E-02	mg/kg-day	1.17E-03
				Chloroethane	1.23E-02	mg/L	4.07E-05	mg/kg-day	2.90E+00	mg/kg-day	1.40E-05
				Chloroform	7.44E-03	mg/L	2.45E-05	mg/kg-day	1.40E-04	mg/kg-day	1.75E-01
				Chloromethane	7.26E-03	mg/L	2.39E-05	mg/kg-day	2.57E-02	mg/kg-day	9.31E-04
				cis-1,2-Dichloroethene	5.55E-02	mg/L	1.83E-04	mg/kg-day	1.00E-02	mg/kg-day	1.83E-02
				Cyanide	6.60E-02	mg/L	2.18E-04	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	7.18E-03	mg/L	2.37E-05	mg/kg-day	2.86E-01	mg/kg-day	8.29E-05
				Fluorene	1.00E-03	mg/L	3.30E-06	mg/kg-day	4.00E-02	mg/kg-day	8.24E-05
				Hexachlorobutadiene	4.00E-04	mg/L	1.32E-06	mg/kg-day	3.00E-04	mg/kg-day	4.40E-03
				Isopropylbenzene	5.50E-03	mg/L	1.81E-05	mg/kg-day	1.10E-01	mg/kg-day	1.65E-04
				m,p-Xylene	1.32E-02	mg/L	4.37E-05	mg/kg-day	2.86E-02	mg/kg-day	1.53E-03
				Methylene Chloride	9.90E-03	mg/L	3.27E-05	mg/kg-day	8.57E-01	mg/kg-day	3.81E-05
				Methyl-T-Butyl-ether	6.97E-03	mg/L	2.30E-05	mg/kg-day	8.57E-01	mg/kg-day	2.68E-05

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air (continued)	Domestic Use of Groundwater Indoors (continued)	Inhalation (bathing/ showering) (continued)	Naphthalene	3.35E-02	mg/L	1.10E-04	mg/kg-day	8.57E-04	mg/kg-day	1.29E-01
				n-Butylbenzene	2.40E-03	mg/L	7.91E-06	mg/kg-day	1.14E-02	mg/kg-day	6.92E-04
				n-propylbenzene	1.22E-02	mg/L	4.03E-05	mg/kg-day	4.00E-02	mg/kg-day	1.01E-03
				o-Xylene	6.86E-03	mg/L	2.26E-05	mg/kg-day	2.86E-02	mg/kg-day	7.92E-04
				Phenanthrene	2.00E-03	mg/L	6.59E-06	mg/kg-day	3.00E-01	mg/kg-day	2.20E-05
				Pyrene	3.00E-03	mg/L	9.89E-06	mg/kg-day	3.00E-02	mg/kg-day	3.30E-04
				sec-Butylbenzene	5.00E-04	mg/L	1.65E-06	mg/kg-day	1.14E-02	mg/kg-day	1.44E-04
				tert-Butylbenzene	3.00E-04	mg/L	9.89E-07	mg/kg-day	1.14E-02	mg/kg-day	8.66E-05
				trans-1,2-Dichloroethene	1.16E-02	mg/L	3.83E-05	mg/kg-day	2.00E-02	mg/kg-day	1.91E-03
				Tetrachloroethene	5.84E-03	mg/L	1.93E-05	mg/kg-day	1.71E-01	mg/kg-day	1.12E-04
				Toluene	6.35E-03	mg/L	2.09E-05	mg/kg-day	1.14E-01	mg/kg-day	1.83E-04
				Trichloroethene	1.00E+00	mg/L	3.30E-03	mg/kg-day	1.00E-02	mg/kg-day	3.30E-01
				Vinyl chloride	2.54E-02	mg/L	8.37E-05	mg/kg-day	2.86E-02	mg/kg-day	2.93E-03
				Xylene (Total)	1.75E-02	mg/L	5.77E-05	mg/kg-day	2.86E-02	mg/kg-day	2.02E-03
			Exposure Route Total								**8.71E-01**
		Exposure Point Total									**8.71E-01**
		Indoor Air	Inhalation (Vapor Intrusion)	1,1,1-Trichloroethane	2.01E-03	mg/m^3	5.50E-04	mg/kg-day	6.30E-01	mg/kg-day	8.72E-04
				1,1,2-Trichloroethane	4.59E-05	mg/m^3	1.25E-05	mg/kg-day	4.00E-03	mg/kg-day	3.13E-03
				1,1-Dichlorethane	3.16E-03	mg/m^3	8.63E-04	mg/kg-day	1.40E-01	mg/kg-day	6.16E-03
				1,1-Dichlorethene	9.92E-02	mg/m^3	2.71E-02	mg/kg-day	5.71E-02	mg/kg-day	4.73E-01
				1,2,4-Trimethylbenzene	2.33E-04	mg/m^3	6.37E-05	mg/kg-day	1.70E-03	mg/kg-day	3.75E-02
				1,2-Dichlorobenzene	9.49E-05	mg/m^3	2.59E-05	mg/kg-day	5.70E-02	mg/kg-day	4.54E-04
				1,2-Dichlorethane	7.70E-05	mg/m^3	2.10E-05	mg/kg-day	6.86E-01	mg/kg-day	3.06E-05
				1,2-Dichlorethene (Total)	6.08E-03	mg/m^3	1.66E-03	mg/kg-day	1.00E-02	mg/kg-day	1.66E-01
				1,2-Dichloropropane	1.41E-06	mg/m^3	3.84E-07	mg/kg-day	1.10E-03	mg/kg-day	3.49E-04
				1,3,5-Trimethylbenzene	2.08E-04	mg/m^3	5.69E-05	mg/kg-day	1.70E-03	mg/kg-day	3.35E-02
				1,3-Dichlorobenzene	5.39E-05	mg/m^3	1.47E-05	mg/kg-day	3.00E-02	mg/kg-day	4.90E-04
				1,4-Dichlorobenzene	5.92E-05	mg/m^3	1.61E-05	mg/kg-day	2.29E-01	mg/kg-day	7.06E-05
				2-Butanone	2.35E-05	mg/m^3	6.42E-06	mg/kg-day	1.43E+00	mg/kg-day	4.49E-06
				2-Hexanone	1.31E-06	mg/m^3	3.58E-07	mg/kg-day	8.60E-01	mg/kg-day	4.16E-07
				2-MethylNaphthalene	8.28E-07	mg/m^3	2.26E-07	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	1.90E-05	mg/m^3	5.19E-06	mg/kg-day	8.60E-01	mg/kg-day	6.04E-06
				Acenaphthene	6.52E-07	mg/m^3	1.78E-07	mg/kg-day	6.00E-02	mg/kg-day	2.97E-06
				Acenaphthylene	6.52E-07	mg/m^3	1.78E-07	mg/kg-day	6.00E-02	mg/kg-day	2.97E-06
				Acetone	5.45E-04	mg/m^3	1.49E-04	mg/kg-day	9.00E-01	mg/kg-day	1.65E-04
				Benzene	5.01E-04	mg/m^3	1.37E-04	mg/kg-day	8.57E-03	mg/kg-day	1.59E-02
				Bromodichloromethane	2.55E-05	mg/m^3	6.97E-06	mg/kg-day	2.00E-02	mg/kg-day	3.48E-04
				Carbon disulfide	1.61E-03	mg/m^3	4.39E-04	mg/kg-day	2.00E-01	mg/kg-day	2.19E-03
				Chlorobenzene	9.89E-05	mg/m^3	2.70E-05	mg/kg-day	1.71E-02	mg/kg-day	1.57E-03
				Chloroethane	1.47E-03	mg/m^3	4.01E-04	mg/kg-day	2.90E+00	mg/kg-day	1.38E-04
				Chloroform	1.82E-04	mg/m^3	4.97E-05	mg/kg-day	1.40E-04	mg/kg-day	3.55E-01
				Chloromethane	5.88E-04	mg/m^3	1.60E-04	mg/kg-day	2.57E-02	mg/kg-day	6.24E-03

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air (continued)	Indoor Air (continued)	Inhalation (Vapor Intrusion) (continued)	cis-1,2-Dichloroethene	1.15E-03	mg/m^3	3.14E-04	mg/kg-day	1.00E-02	mg/kg-day	3.14E-02
				Cyanide	9.60E-05	mg/m^3	2.62E-05	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	2.48E-04	mg/m^3	6.78E-05	mg/kg-day	2.86E-01	mg/kg-day	2.37E-04
				Fluorene	1.34E-07	mg/m^3	3.66E-08	mg/kg-day	4.00E-02	mg/kg-day	9.14E-07
				Hexachlorobutadiene	9.57E-06	mg/m^3	2.61E-06	mg/kg-day	3.00E-04	mg/kg-day	8.71E-03
				Isopropylbenzene	2.12E-02	mg/m^3	5.79E-03	mg/kg-day	1.10E-01	mg/kg-day	5.26E-02
				m,p-Xylene	4.52E-04	mg/m^3	1.23E-04	mg/kg-day	2.86E-02	mg/kg-day	4.31E-03
				Methylene Chloride	1.47E-04	mg/m^3	4.01E-05	mg/kg-day	8.57E-01	mg/kg-day	4.67E-05
				Methyl-T-Butyl-ether	2.95E-05	mg/m^3	8.06E-06	mg/kg-day	8.57E-01	mg/kg-day	9.41E-06
				Naphthalene	5.03E-05	mg/m^3	1.37E-05	mg/kg-day	8.57E-04	mg/kg-day	1.60E-02
				n-Butylbenzene	9.94E-05	mg/m^3	2.71E-05	mg/kg-day	1.14E-02	mg/kg-day	2.37E-03
				n-propylbenzene	4.44E-04	mg/m^3	1.21E-04	mg/kg-day	4.00E-02	mg/kg-day	3.03E-03
				o-Xylene	1.73E-04	mg/m^3	4.71E-05	mg/kg-day	2.86E-02	mg/kg-day	1.65E-03
				Phenanthrene	1.75E-07	mg/m^3	4.79E-08	mg/kg-day	3.00E-01	mg/kg-day	1.60E-07
				Pyrene	6.77E-08	mg/m^3	1.85E-08	mg/kg-day	3.00E-02	mg/kg-day	6.16E-07
				sec-Butylbenzene	5.50E-08	mg/m^3	1.50E-08	mg/kg-day	1.14E-02	mg/kg-day	1.31E-06
				tert-Butylbenzene	1.30E-05	mg/m^3	3.54E-06	mg/kg-day	1.14E-02	mg/kg-day	3.10E-04
				trans-1,2-Dichloroethene	9.43E-04	mg/m^3	2.57E-04	mg/kg-day	2.00E-02	mg/kg-day	1.29E-02
				Tetrachloroethene	4.75E-04	mg/m^3	1.30E-04	mg/kg-day	1.71E-01	mg/kg-day	7.56E-04
				Toluene	2.22E-04	mg/m^3	6.05E-05	mg/kg-day	1.14E-01	mg/kg-day	5.30E-04
				Trichloroethene	5.23E-02	mg/m^3	1.43E-02	mg/kg-day	1.00E-02	mg/kg-day	1.43E+00
				Vinyl chloride	5.47E-03	mg/m^3	1.49E-03	mg/kg-day	2.86E-02	mg/kg-day	5.22E-02
				Xylene (Total)	5.96E-04	mg/m^3	1.63E-04	mg/kg-day	2.86E-02	mg/kg-day	5.70E-03
			Exposure Route Total								**2.72E+00**
		Exposure Point Total									**2.72E+00**
	Exposure Medium Total										**3.60E+00**
Medium Total											**1.31E+02**
										Total of Receptor Hazards Across All Media	**1.32E+02**

TABLE F-7.1.7.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED ADULT RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Adult

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	

Notes:

--	Not applicable or not available
EPA	U.S. Environmental Protection Agency
EPC	Exposure point concentration
ft bgs	Feet below ground surface
mg/kg	Milligram per kilogram
mg/kg-day	Milligram per kilogram per day
mg/L	Milligram per liter
mg/m^3	Milligram per cubic meter
RAGS	Risk Assessment Guidelines for Superfund
RfD	Reference dose
RfC	Reference concentration
RI	Remedial Investigation
RME	Reasonable maximum expsoure
VOC	Volatile Organic Compound

(a) See the Vapor Intrusion to Indoor Air Evaluation for determination of the modeled indoor air concentration.

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs)	Soil	Site Soil	Ingestion	2,4-Dimethylphenol	4.30E-02	mg/kg	5.50E-07	mg/kg-day	2.00E-02	mg/kg-day	2.75E-05
				2-Butanone	2.40E-01	mg/kg	3.07E-06	mg/kg-day	6.00E-01	mg/kg-day	5.11E-06
				2-Methylnaphthalene	2.69E-01	mg/kg	3.44E-06	mg/kg-day	4.00E-03	mg/kg-day	8.61E-04
				4,4'-DDT	6.49E-03	mg/kg	8.30E-08	mg/kg-day	5.00E-04	mg/kg-day	1.66E-04
				4-Methyl-2-pentanone	4.50E-02	mg/kg	5.75E-07	mg/kg-day	8.00E-02	mg/kg-day	7.19E-06
				Acenaphthene	2.67E-01	mg/kg	3.42E-06	mg/kg-day	6.00E-02	mg/kg-day	5.69E-05
				Acenaphthylene	1.94E-02	mg/kg	2.49E-07	mg/kg-day	6.00E-02	mg/kg-day	4.14E-06
				Acetone	1.50E+00	mg/kg	1.92E-05	mg/kg-day	9.00E-01	mg/kg-day	2.13E-05
				alpha-Chlordane	1.86E-03	mg/kg	2.38E-08	mg/kg-day	5.00E-04	mg/kg-day	4.75E-05
				Aluminum	1.10E+04	mg/kg	1.41E-01	mg/kg-day	1.00E+00	mg/kg-day	1.41E-01
				Anthracene	5.40E-01	mg/kg	6.91E-06	mg/kg-day	3.00E-01	mg/kg-day	2.30E-05
				Antimony	5.00E+00	mg/kg	6.39E-05	mg/kg-day	4.00E-04	mg/kg-day	1.60E-01
				Aroclor-1260	1.01E+00	mg/kg	1.30E-05	mg/kg-day	2.00E-05	mg/kg-day	6.49E-01
				Arsenic	1.95E+01	mg/kg	2.50E-04	mg/kg-day	3.00E-04	mg/kg-day	8.32E-01
				Barium	2.06E+02	mg/kg	2.64E-03	mg/kg-day	7.00E-02	mg/kg-day	3.77E-02
				Benzene	1.87E+00	mg/kg	2.39E-05	mg/kg-day	4.00E-03	mg/kg-day	5.97E-03
				Benzo(a)anthracene	8.85E-01	mg/kg	1.13E-05	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.12E+00	mg/kg	1.44E-05	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	7.80E-01	mg/kg	9.98E-06	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.88E-01	mg/kg	3.68E-06	mg/kg-day	3.00E-02	mg/kg-day	1.23E-04
				Benzo(k)fluoranthene	3.96E-01	mg/kg	5.07E-06	mg/kg-day	--	--	--
				Beryllium	1.90E+00	mg/kg	2.43E-05	mg/kg-day	2.00E-03	mg/kg-day	1.21E-02
				bis(2-ethylhexyl)phthalate	5.00E-02	mg/kg	6.39E-07	mg/kg-day	2.00E-02	mg/kg-day	3.20E-05
				Cadmium	1.30E+00	mg/kg	1.66E-05	mg/kg-day	5.00E-04	mg/kg-day	3.32E-02
				Carbazole	1.60E-01	mg/kg	2.05E-06	mg/kg-day	--	--	--
				Carbon disulfide	1.20E-02	mg/kg	1.53E-07	mg/kg-day	1.00E-01	mg/kg-day	1.53E-06
				Chlordane	1.49E-01	mg/kg	1.90E-06	mg/kg-day	5.00E-04	mg/kg-day	3.81E-03
				Chromium	4.50E+01	mg/kg	5.75E-04	mg/kg-day	1.50E+00	mg/kg-day	3.83E-04
				Chrysene	9.05E-01	mg/kg	1.16E-05	mg/kg-day	--	--	--
				Cobalt	7.51E+00	mg/kg	9.61E-05	mg/kg-day	2.00E-02	mg/kg-day	4.80E-03
				Copper	9.89E+01	mg/kg	1.26E-03	mg/kg-day	4.00E-02	mg/kg-day	3.16E-02
				Dibenzo(a,h)anthracene	6.74E-02	mg/kg	8.61E-07	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	1.53E-05	mg/kg-day	2.00E-03	mg/kg-day	7.67E-03
				Diethylphthalate	2.20E-02	mg/kg	2.81E-07	mg/kg-day	8.00E-01	mg/kg-day	3.52E-07
				di-n-Butylphthalate	1.30E-01	mg/kg	1.66E-06	mg/kg-day	1.00E-01	mg/kg-day	1.66E-05
				di-n-Octylphthalate	9.40E-02	mg/kg	1.20E-06	mg/kg-day	4.00E-02	mg/kg-day	3.00E-05
				Ethylbenzene	5.72E+00	mg/kg	7.32E-05	mg/kg-day	1.00E-01	mg/kg-day	7.32E-04
				Fluoranthene	3.09E+00	mg/kg	3.95E-05	mg/kg-day	4.00E-02	mg/kg-day	9.88E-04
				Fluorene	4.10E-01	mg/kg	5.24E-06	mg/kg-day	4.00E-02	mg/kg-day	1.31E-04
				gamma-BHC (Lindane)	1.90E-03	mg/kg	2.43E-08	mg/kg-day	3.00E-04	mg/kg-day	8.10E-05
				gamma-Chlordane	1.85E-03	mg/kg	2.36E-08	mg/kg-day	5.00E-04	mg/kg-day	4.72E-05
				Indeno(1,2,3-cd)pyrene	2.70E-01	mg/kg	3.45E-06	mg/kg-day	--	--	--

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Ingestion (continued)	Iron	2.48E+04	mg/kg	3.17E-01	mg/kg-day	3.00E-01	mg/kg-day	1.06E+00
				Lead	1.80E+03	mg/kg	2.31E-02	mg/kg-day	--	--	--
				m,p-Xylene	3.09E+00	mg/kg	3.95E-05	mg/kg-day	2.00E-01	mg/kg-day	1.98E-04
				Manganese	2.87E+02	mg/kg	3.67E-03	mg/kg-day	2.40E-02	mg/kg-day	1.53E-01
				Mercury	3.10E+00	mg/kg	3.96E-05	mg/kg-day	3.00E-04	mg/kg-day	1.32E-01
				Methylene chloride	9.40E-02	mg/kg	1.20E-06	mg/kg-day	6.00E-02	mg/kg-day	2.00E-05
				Methyl-T-Butyl-Ether	4.00E-03	mg/kg	5.11E-08	mg/kg-day	8.60E-01	mg/kg-day	5.95E-08
				Naphthalene	3.48E-01	mg/kg	4.44E-06	mg/kg-day	2.00E-02	mg/kg-day	2.22E-04
				Nickel	3.65E+01	mg/kg	4.66E-04	mg/kg-day	2.00E-02	mg/kg-day	2.33E-02
				n-Nitroso-diphenylamine	5.50E-01	mg/kg	7.03E-06	mg/kg-day	2.00E-02	mg/kg-day	3.52E-04
				o-Xylene	1.22E+00	mg/kg	1.55E-05	mg/kg-day	2.00E-01	mg/kg-day	7.77E-05
				Phenanthrene	2.25E+00	mg/kg	2.88E-05	mg/kg-day	3.00E-01	mg/kg-day	9.59E-05
				Pyrene	1.80E+00	mg/kg	2.30E-05	mg/kg-day	3.00E-02	mg/kg-day	7.66E-04
				Silver	2.40E+00	mg/kg	3.07E-05	mg/kg-day	5.00E-03	mg/kg-day	6.14E-03
				Thallium	4.60E+00	mg/kg	5.88E-05	mg/kg-day	6.60E-05	mg/kg-day	8.91E-01
				Titanium	4.78E+02	mg/kg	6.11E-03	mg/kg-day	4.00E+00	mg/kg-day	1.53E-03
				Toluene	2.26E+01	mg/kg	2.89E-04	mg/kg-day	2.00E-01	mg/kg-day	1.44E-03
				Vanadium	3.46E+01	mg/kg	4.42E-04	mg/kg-day	7.00E-03	mg/kg-day	6.32E-02
				Xylene (Total)	3.19E+01	mg/kg	4.08E-04	mg/kg-day	2.00E-01	mg/kg-day	2.04E-03
				Zinc	3.97E+02	mg/kg	5.08E-03	mg/kg-day	3.00E-01	mg/kg-day	1.69E-02
			Exposure Route Total								**4.27E+00**
			Dermal	2,4-Dimethylphenol	4.30E-02	mg/kg	1.5E-08	mg/kg-day	2.00E-02	mg/kg-day	7.70E-07
				2-Butanone	2.40E-01	mg/kg	8.6E-08	mg/kg-day	6.00E-01	mg/kg-day	1.43E-07
				2-Methylnaphthalene	2.69E-01	mg/kg	9.6E-08	mg/kg-day	4.00E-03	mg/kg-day	2.41E-05
				4,4'-DDT	6.49E-03	mg/kg	7.0E-09	mg/kg-day	5.00E-04	mg/kg-day	1.39E-05
				4-Methyl-2-pentanone	4.50E-02	mg/kg	1.6E-08	mg/kg-day	8.00E-02	mg/kg-day	2.01E-07
				Acenaphthene	2.67E-01	mg/kg	1.2E-06	mg/kg-day	6.00E-02	mg/kg-day	2.07E-05
				Acenaphthylene	1.94E-02	mg/kg	7.0E-09	mg/kg-day	6.00E-02	mg/kg-day	1.16E-07
				Acetone	1.50E+00	mg/kg	5.4E-07	mg/kg-day	9.00E-01	mg/kg-day	5.97E-07
				alpha-Chlordane	1.86E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Aluminum	1.10E+04	mg/kg	4.0E-04	mg/kg-day	1.00E+00	mg/kg-day	3.95E-04
				Anthracene	5.40E-01	mg/kg	2.5E-06	mg/kg-day	3.00E-01	mg/kg-day	8.38E-06
				Antimony	5.00E+00	mg/kg	1.8E-07	mg/kg-day	4.00E-04	mg/kg-day	4.47E-04
				Aroclor-1260	1.01E+00	mg/kg	5.1E-06	mg/kg-day	2.00E-05	mg/kg-day	2.54E-01
				Arsenic	1.95E+01	mg/kg	2.1E-05	mg/kg-day	3.00E-04	mg/kg-day	6.99E-02
				Barium	2.06E+02	mg/kg	7.4E-06	mg/kg-day	4.90E-03	mg/kg-day	1.51E-03
				Benzene	1.87E+00	mg/kg	6.7E-07	mg/kg-day	4.00E-03	mg/kg-day	1.67E-04
				Benzo(a)anthracene	8.85E-01	mg/kg	4.1E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.12E+00	mg/kg	5.2E-06	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	7.80E-01	mg/kg	3.6E-06	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.88E-01	mg/kg	1.3E-06	mg/kg-day	3.00E-02	mg/kg-day	4.46E-05
				Benzo(k)fluoranthene	3.96E-01	mg/kg	1.8E-06	mg/kg-day	--	--	--

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Beryllium	1.90E+00	mg/kg	6.8E-08	mg/kg-day	1.40E-05	mg/kg-day	4.86E-03
				bis(2-ethylhexyl)phthalate	5.00E-02	mg/kg	1.8E-08	mg/kg-day	2.00E-02	mg/kg-day	8.95E-07
				Cadmium	1.30E+00	mg/kg	4.7E-08	mg/kg-day	5.00E-04	mg/kg-day	9.31E-05
				Carbazole	1.60E-01	mg/kg	5.7E-08	mg/kg-day	--	--	--
				Carbon disulfide	1.20E-02	mg/kg	1.1E-07	mg/kg-day	1.00E-01	mg/kg-day	1.07E-06
				Chlordane	1.49E-01	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Chromium	4.50E+01	mg/kg	1.6E-06	mg/kg-day	1.50E+00	mg/kg-day	1.07E-06
				Chrysene	9.05E-01	mg/kg	4.2E-06	mg/kg-day	--	--	--
				Cobalt	7.51E+00	mg/kg	2.7E-07	mg/kg-day	2.00E-02	mg/kg-day	1.34E-05
				Copper	9.89E+01	mg/kg	3.5E-06	mg/kg-day	4.00E-02	mg/kg-day	8.85E-05
				Dibenzo(a,h)anthracene	6.74E-02	mg/kg	3.1E-07	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	4.3E-07	mg/kg-day	2.00E-03	mg/kg-day	2.15E-04
				Diethylphthalate	2.20E-02	mg/kg	7.9E-09	mg/kg-day	8.00E-01	mg/kg-day	9.84E-09
				di-n-Butylphthalate	1.30E-01	mg/kg	4.7E-08	mg/kg-day	1.00E+01	mg/kg-day	4.65E-09
				di-n-Octylphthalate	9.40E-02	mg/kg	3.4E-08	mg/kg-day	4.00E-02	mg/kg-day	8.41E-07
				Ethylbenzene	5.72E+00	mg/kg	2.0E-06	mg/kg-day	1.00E-01	mg/kg-day	2.05E-05
				Fluoranthene	3.09E+00	mg/kg	1.4E-05	mg/kg-day	4.00E-02	mg/kg-day	3.60E-04
				Fluorene	4.10E-01	mg/kg	1.9E-06	mg/kg-day	4.00E-02	mg/kg-day	4.77E-05
				gamma-BHC (Lindane)	1.90E-03	mg/kg	2.7E-09	mg/kg-day	3.00E-04	mg/kg-day	9.07E-06
				gamma-Chlordane	1.85E-03	mg/kg	--	mg/kg-day	5.00E-04	mg/kg-day	--
				Indeno(1,2,3-cd)pyrene	2.70E-01	mg/kg	1.3E-06	mg/kg-day	--	--	--
				Iron	2.48E+04	mg/kg	8.9E-04	mg/kg-day	3.00E-01	mg/kg-day	2.96E-03
				Lead	1.80E+03	mg/kg	6.5E-05	mg/kg-day	--	--	--
				m,p-Xylene	3.09E+00	mg/kg	1.1E-06	mg/kg-day	2.00E-01	mg/kg-day	5.53E-06
				Manganese	2.87E+02	mg/kg	1.0E-05	mg/kg-day	2.40E-02	mg/kg-day	4.29E-04
				Mercury	3.10E+00	mg/kg	--	mg/kg-day	2.10E-05	mg/kg-day	--
				Methylene chloride	9.40E-02	mg/kg	3.4E-08	mg/kg-day	6.00E-02	mg/kg-day	5.61E-07
				Methyl-T-Butyl-Ether	4.00E-03	mg/kg	1.4E-09	mg/kg-day	8.60E-01	mg/kg-day	1.67E-09
				Naphthalene	3.48E-01	mg/kg	1.6E-06	mg/kg-day	2.00E-02	mg/kg-day	8.09E-05
				Nickel	3.65E+01	mg/kg	1.3E-06	mg/kg-day	8.00E-04	mg/kg-day	1.63E-03
				n-Nitroso-diphenylamine	5.50E-01	mg/kg	2.0E-07	mg/kg-day	2.00E-02	mg/kg-day	9.84E-06
				o-Xylene	1.22E+00	mg/kg	4.4E-07	mg/kg-day	2.00E-01	mg/kg-day	2.18E-06
				Phenanthrene	2.25E+00	mg/kg	8.1E-07	mg/kg-day	3.00E-01	mg/kg-day	2.68E-06
				Pyrene	1.80E+00	mg/kg	8.4E-06	mg/kg-day	3.00E-02	mg/kg-day	2.79E-04
				Silver	2.40E+00	mg/kg	8.6E-08	mg/kg-day	2.00E-04	mg/kg-day	4.30E-04
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.78E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Toluene	2.26E+01	mg/kg	8.1E-06	mg/kg-day	2.00E-01	mg/kg-day	4.05E-05
				Vanadium	3.46E+01	mg/kg	1.2E-06	mg/kg-day	1.82E-04	mg/kg-day	6.80E-03

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Site Soil (continued)	Dermal (continued)	Xylene (Total)	3.19E+01	mg/kg	1.1E-05	mg/kg-day	2.00E-01	mg/kg-day	5.71E-05
				Zinc	3.97E+02	mg/kg	1.4E-05	mg/kg-day	3.00E-01	mg/kg-day	4.74E-05
			Exposure Route Total								**3.45E-01**
		Exposure Point Total									**4.62E+00**
		Homegrown Produce	Ingestion	2,4-Dimethylphenol	4.30E-02	mg/kg	2.4E-06	mg/kg-day	2.00E-02	mg/kg-day	1.19E-04
				2-Butanone	2.40E-01	mg/kg	--	mg/kg-day	6.00E-01	mg/kg-day	--
				2-Methylnaphthalene	2.69E-01	mg/kg	--	mg/kg-day	4.00E-03	mg/kg-day	--
				4,4'-DDT	6.49E-03	mg/kg	2.8E-10	mg/kg-day	5.00E-04	mg/kg-day	5.58E-07
				4-Methyl-2-pentanone	4.50E-02	mg/kg	--	mg/kg-day	8.00E-02	mg/kg-day	--
				Acenaphthene	2.67E-01	mg/kg	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Acenaphthylene	1.94E-02	mg/kg	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Acetone	1.50E+00	mg/kg	--	mg/kg-day	9.00E-01	mg/kg-day	--
				alpha-Chlordane	1.86E-03	mg/kg	3.6E-10	mg/kg-day	5.00E-04	mg/kg-day	7.11E-07
				Aluminum	1.10E+04	mg/kg	--	mg/kg-day	1.00E+00	mg/kg-day	--
				Anthracene	5.40E-01	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Antimony	5.00E+00	mg/kg	--	mg/kg-day	4.00E-04	mg/kg-day	--
				Aroclor-1260	1.01E+00	mg/kg	8.2E-08	mg/kg-day	2.00E-05	mg/kg-day	4.08E-03
				Arsenic	1.95E+01	mg/kg	9.9E-05	mg/kg-day	3.00E-04	mg/kg-day	3.30E-01
				Barium	2.06E+02	mg/kg	--	mg/kg-day	7.00E-02	mg/kg-day	--
				Benzene	1.87E+00	mg/kg	--	mg/kg-day	4.00E-03	mg/kg-day	--
				Benzo(a)anthracene	8.85E-01	mg/kg	7.3E-08	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.12E+00	mg/kg	6.1E-08	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	7.80E-01	mg/kg	5.0E-08	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.88E-01	mg/kg	--	mg/kg-day	3.00E-02	mg/kg-day	--
				Benzo(k)fluoranthene	3.96E-01	mg/kg	2.1E-08	mg/kg-day	--	--	--
				Beryllium	1.90E+00	mg/kg	--	mg/kg-day	2.00E-03	mg/kg-day	--
				bis(2-ethylhexyl)phthalate	5.00E-02	mg/kg	3.7E-11	mg/kg-day	2.00E-02	mg/kg-day	1.87E-09
				Cadmium	1.30E+00	mg/kg	8.3E-05	mg/kg-day	5.00E-04	mg/kg-day	1.67E-01
				Carbazole	1.60E-01	mg/kg	4.6E-06	mg/kg-day	--	--	--
				Carbon disulfide	1.20E-02	mg/kg	--	mg/kg-day	1.00E-01	mg/kg-day	--
				Chlordane	1.49E-01	mg/kg	2.9E-08	mg/kg-day	5.00E-04	mg/kg-day	5.70E-05
				Chromium	4.50E+01	mg/kg	--	mg/kg-day	1.50E+00	mg/kg-day	--
				Chrysene	9.05E-01	mg/kg	7.4E-08	mg/kg-day	--	--	--
				Cobalt	7.51E+00	mg/kg	--	mg/kg-day	2.00E-02	mg/kg-day	--
				Copper	9.89E+01	mg/kg	--	mg/kg-day	4.00E-02	mg/kg-day	--
				Dibenzo(a,h)anthracene	6.74E-02	mg/kg	2.4E-09	mg/kg-day	--	--	--
				Dibenzofuran	1.20E+00	mg/kg	--	mg/kg-day	2.00E-03	mg/kg-day	--
				Diethylphthalate	2.20E-02	mg/kg	1.1E-06	mg/kg-day	8.00E-01	mg/kg-day	1.42E-06
				di-n-Butylphthalate	1.30E-01	mg/kg	2.1E-08	mg/kg-day	1.00E-01	mg/kg-day	2.14E-07
				di-n-Octylphthalate	9.40E-02	mg/kg	2.6E-09	mg/kg-day	4.00E-02	mg/kg-day	6.51E-08
				Ethylbenzene	5.72E+00	mg/kg	--	mg/kg-day	1.00E-01	mg/kg-day	--
				Fluoranthene	3.09E+00	mg/kg	2.7E-07	mg/kg-day	4.00E-02	mg/kg-day	6.85E-06

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Soil (continued)	Homegrown Produce (continued)	Ingestion (continued)	Fluorene	4.10E-01	mg/kg	--	mg/kg-day	4.00E-02	mg/kg-day	--
				gamma-BHC (Lindane)	1.90E-03	mg/kg	1.5E-07	mg/kg-day	3.00E-04	mg/kg-day	4.88E-04
				gamma-Chlordane	1.85E-03	mg/kg	3.5E-10	mg/kg-day	5.00E-04	mg/kg-day	7.07E-07
				Indeno(1,2,3-cd)pyrene	2.70E-01	mg/kg	1.3E-08	mg/kg-day	--	--	--
				Iron	2.48E+04	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Lead	1.80E+03	mg/kg	--	mg/kg-day	--	--	--
				m,p-Xylene	3.09E+00	mg/kg	--	mg/kg-day	2.00E-01	mg/kg-day	--
				Manganese	2.87E+02	mg/kg	--	mg/kg-day	2.40E-02	mg/kg-day	--
				Mercury	3.10E+00	mg/kg	2.4E-05	mg/kg-day	3.00E-04	mg/kg-day	8.09E-02
				Methylene chloride	9.40E-02	mg/kg	--	mg/kg-day	6.00E-02	mg/kg-day	--
				Methyl-T-Butyl-Ether	4.00E-03	mg/kg	--	mg/kg-day	8.60E-01	mg/kg-day	--
				Naphthalene	3.48E-01	mg/kg	--	mg/kg-day	2.00E-02	mg/kg-day	--
				Nickel	3.65E+01	mg/kg	3.0E-04	mg/kg-day	2.00E-02	mg/kg-day	1.51E-02
				n-Nitroso-diphenylamine	5.50E-01	mg/kg	1.5E-05	mg/kg-day	2.00E-02	mg/kg-day	7.71E-04
				o-Xylene	1.22E+00	mg/kg	--	mg/kg-day	2.00E-01	mg/kg-day	--
				Phenanthrene	2.25E+00	mg/kg	--	mg/kg-day	3.00E-01	mg/kg-day	--
				Pyrene	1.80E+00	mg/kg	--	mg/kg-day	3.00E-02	mg/kg-day	--
				Silver	2.40E+00	mg/kg	--	mg/kg-day	5.00E-03	mg/kg-day	--
				Thallium	4.60E+00	mg/kg	--	mg/kg-day	6.60E-05	mg/kg-day	--
				Titanium	4.78E+02	mg/kg	--	mg/kg-day	4.00E+00	mg/kg-day	--
				Toluene	2.26E+01	mg/kg	--	mg/kg-day	2.00E-01	mg/kg-day	--
				Vanadium	3.46E+01	mg/kg	--	mg/kg-day	7.00E-03	mg/kg-day	--
				Xylene (Total)	3.19E+01	mg/kg	--	mg/kg-day	2.00E-01	mg/kg-day	--
				Zinc	3.97E+02	mg/kg	1.3E-02	mg/kg-day	3.00E-01	mg/kg-day	4.38E-02
			Exposure Route Total								**6.42E-01**
		Exposure Point Total									**6.42E-01**
	Exposure Medium Total										**5.26E+00**
	Air	Outdoor Air	Inhalation (particulates or VOCs)	2,4-Dimethylphenol	3.26E-11	mg/m^3	2.1E-11	mg/kg-day	2.00E-02	mg/kg-day	1.05E-09
				2-Butanone	1.26E-05	mg/m^3	8.1E-06	mg/kg-day	1.43E+00	mg/kg-day	5.70E-06
				2-Methylnaphthalene	1.90E-06	mg/m^3	1.2E-06	mg/kg-day	--	--	--
				4,4'-DDT	4.92E-12	mg/m^3	3.2E-12	mg/kg-day	5.00E-04	mg/kg-day	6.34E-09
				4-Methyl-2-pentanone	1.80E-06	mg/m^3	1.2E-06	mg/kg-day	8.60E-01	mg/kg-day	1.35E-06
				Acenaphthene	1.48E-06	mg/m^3	9.6E-07	mg/kg-day	6.00E-02	mg/kg-day	1.59E-05
				Acenaphthylene	1.08E-07	mg/m^3	7.0E-08	mg/kg-day	6.00E-02	mg/kg-day	1.16E-06
				Acetone	1.19E-04	mg/m^3	7.7E-05	mg/kg-day	9.00E-01	mg/kg-day	8.52E-05
				alpha-Chlordane	1.41E-12	mg/m^3	9.1E-13	mg/kg-day	2.00E-04	mg/kg-day	4.54E-09
				Aluminum	8.36E-06	mg/m^3	5.4E-06	mg/kg-day	1.43E-03	mg/kg-day	3.77E-03
				Anthracene	7.72E-07	mg/m^3	5.0E-07	mg/kg-day	3.00E-01	mg/kg-day	1.66E-06
				Antimony	3.79E-09	mg/m^3	2.4E-09	mg/kg-day	--	--	--
				Aroclor-1260	7.69E-10	mg/m^3	5.0E-10	mg/kg-day	2.00E-05	mg/kg-day	2.48E-05
				Arsenic	1.48E-08	mg/m^3	9.5E-09	mg/kg-day	--	mg/kg-day	--
				Barium	1.56E-07	mg/m^3	1.0E-07	mg/kg-day	1.40E-04	mg/kg-day	7.19E-04

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Air (continued)	Outdoor Air (continued)	Inhalation (particulates or VOCs) (continued)	Benzene	6.91E-04	mg/m^3	4.5E-04	mg/kg-day	8.57E-03	mg/kg-day	5.20E-02
				Benzo(a)anthracene	6.70E-10	mg/m^3	4.3E-10	mg/kg-day	--	--	--
				Benzo(a)pyrene	8.52E-10	mg/m^3	5.5E-10	mg/kg-day	--	--	--
				Benzo(b)fluoranthene	5.91E-10	mg/m^3	3.8E-10	mg/kg-day	--	--	--
				Benzo(g,h,i)perylene	2.18E-10	mg/m^3	1.4E-10	mg/kg-day	3.00E-02	mg/kg-day	4.68E-09
				Benzo(k)fluoranthene	3.00E-10	mg/m^3	1.9E-10	mg/kg-day	--	--	--
				Beryllium	1.44E-09	mg/m^3	9.3E-10	mg/kg-day	5.71E-06	mg/kg-day	1.62E-04
				bis(2-ethylhexyl)phthalate	3.79E-11	mg/m^3	2.4E-11	mg/kg-day	2.20E-02	mg/kg-day	1.11E-09
				Cadmium	9.85E-10	mg/m^3	6.3E-10	mg/kg-day	--	mg/kg-day	--
				Carbazole	1.21E-10	mg/m^3	7.8E-11	mg/kg-day	--	--	--
				Carbon disulfide	1.00E-05	mg/m^3	6.4E-06	mg/kg-day	2.00E-01	mg/kg-day	3.22E-05
				Chlordane	1.13E-10	mg/m^3	7.3E-11	mg/kg-day	2.00E-04	mg/kg-day	3.64E-07
				Chromium	3.41E-08	mg/m^3	2.2E-08	mg/kg-day	--	--	--
				Chrysene	6.86E-10	mg/m^3	4.4E-10	mg/kg-day	--	--	--
				Cobalt	5.69E-09	mg/m^3	3.7E-09	mg/kg-day	5.71E-06	mg/kg-day	6.42E-04
				Copper	7.49E-08	mg/m^3	4.8E-08	mg/kg-day	--	--	--
				Dibenzo(a,h)anthracene	5.10E-11	mg/m^3	3.3E-11	mg/kg-day	--	--	--
				Dibenzofuran	1.85E-06	mg/m^3	1.2E-06	mg/kg-day	2.00E-03	mg/kg-day	5.95E-04
				Diethylphthalate	1.67E-11	mg/m^3	1.1E-11	mg/kg-day	8.00E-01	mg/kg-day	1.34E-11
				di-n-Butylphthalate	9.85E-11	mg/m^3	6.3E-11	mg/kg-day	--	--	--
				di-n-Octylphthalate	7.12E-11	mg/m^3	4.6E-11	mg/kg-day	4.00E-02	mg/kg-day	1.15E-09
				Ethylbenzene	1.06E-03	mg/m^3	6.8E-04	mg/kg-day	2.86E-01	mg/kg-day	2.39E-03
				Fluoranthene	2.34E-09	mg/m^3	1.5E-09	mg/kg-day	4.00E-02	mg/kg-day	3.77E-08
				Fluorene	1.14E-06	mg/m^3	7.3E-07	mg/kg-day	4.00E-02	mg/kg-day	1.83E-05
				gamma-BHC (Lindane)	1.44E-12	mg/m^3	9.3E-13	mg/kg-day	3.00E-04	mg/kg-day	3.09E-09
				gamma-Chlordane	1.40E-12	mg/m^3	9.0E-13	mg/kg-day	2.00E-04	mg/kg-day	4.51E-09
				Indeno(1,2,3-cd)pyrene	2.04E-10	mg/m^3	1.3E-10	mg/kg-day	--	--	--
				Iron	1.88E-05	mg/m^3	1.2E-05	mg/kg-day	--	--	--
				Lead	1.37E-06	mg/m^3	8.8E-07	mg/kg-day	--	--	--
				m,p-Xylene	5.07E-04	mg/m^3	3.3E-04	mg/kg-day	2.86E-02	mg/kg-day	1.14E-02
				Manganese	2.18E-07	mg/m^3	1.4E-07	mg/kg-day	1.43E-05	mg/kg-day	9.82E-03
				Mercury	2.35E-09	mg/m^3	1.5E-09	mg/kg-day	--	mg/kg-day	--
				Methylene chloride	3.78E-05	mg/m^3	2.4E-05	mg/kg-day	8.57E-01	mg/kg-day	2.84E-05
				Methyl-T-Butyl-Ether	8.51E-07	mg/m^3	5.5E-07	mg/kg-day	8.57E-01	mg/kg-day	6.40E-07
				Naphthalene	8.08E-06	mg/m^3	5.2E-06	mg/kg-day	8.57E-04	mg/kg-day	6.08E-03
				Nickel	2.76E-08	mg/m^3	1.8E-08	mg/kg-day	5.71E-05	mg/kg-day	3.12E-04
				n-Nitroso-diphenylamine	4.17E-10	mg/m^3	2.7E-10	mg/kg-day	2.00E-02	mg/kg-day	1.34E-08
				o-Xylene	1.99E-04	mg/m^3	1.3E-04	mg/kg-day	2.86E-02	mg/kg-day	4.49E-03
				Phenanthrene	1.50E-06	mg/m^3	9.7E-07	mg/kg-day	3.00E-01	mg/kg-day	3.23E-06
				Pyrene	4.73E-07	mg/m^3	3.0E-07	mg/kg-day	3.00E-02	mg/kg-day	1.02E-05
				Silver	1.82E-09	mg/m^3	1.2E-09	mg/kg-day	--	--	--
				Thallium	3.48E-09	mg/m^3	2.2E-09	mg/kg-day	--	--	--

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Soil (0-8 ft bgs) (continued)	Air (continued)	Outdoor Air (continued)	Inhalation (particulates or VOCs) (continued)	Titanium	3.62E-07	mg/m^3	2.3E-07	mg/kg-day	8.60E-03	mg/kg-day	2.71E-05
				Toluene	5.65E-03	mg/m^3	3.6E-03	mg/kg-day	1.14E-01	mg/kg-day	3.19E-02
				Vanadium	2.62E-08	mg/m^3	1.7E-08	mg/kg-day	--	--	--
				Xylene (Total)	5.23E-03	mg/m^3	3.4E-03	mg/kg-day	2.86E-02	mg/kg-day	1.18E-01
				Zinc	3.01E-07	mg/m^3	1.9E-07	mg/kg-day	--	mg/kg-day	--
			Exposure Route Total								**2.43E-01**
		Exposure Point Total									**2.43E-01**
	Exposure Medium Total										**2.43E-01**
Medium Total											**5.50E+00**
Groundwater	Groundwater	Domestic Use of Groundwater	Ingestion	1,1,1-Trichloroethane	2.23E-02	mg/L	1.43E-03	mg/kg-day	2.80E-01	mg/kg-day	5.09E-03
				1,1,2-Trichloroethane	1.06E-02	mg/L	6.76E-04	mg/kg-day	4.00E-03	mg/kg-day	1.69E-01
				1,1-Dichlorethane	1.08E-01	mg/L	6.92E-03	mg/kg-day	1.00E-01	mg/kg-day	6.92E-02
				1,1-Dichlorethene	5.89E-01	mg/L	3.76E-02	mg/kg-day	5.00E-02	mg/kg-day	7.53E-01
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	7.23E-04	mg/kg-day	5.00E-02	mg/kg-day	1.45E-02
				1,2-Dichlorobenzene	1.34E-02	mg/L	8.55E-04	mg/kg-day	9.00E-02	mg/kg-day	9.50E-03
				1,2-Dichlorethane	1.25E-02	mg/L	7.98E-04	mg/kg-day	2.00E-02	mg/kg-day	3.99E-02
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	1.88E-02	mg/kg-day	1.00E-02	mg/kg-day	1.88E+00
				1,2-Dichloropropane	1.00E-04	mg/L	6.39E-06	mg/kg-day	1.10E-03	mg/kg-day	5.81E-03
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	6.79E-04	mg/kg-day	5.00E-02	mg/kg-day	1.36E-02
				1,3-Dichlorobenzene	4.50E-03	mg/L	2.88E-04	mg/kg-day	9.00E-04	mg/kg-day	3.20E-01
				1,4-Dichlorobenzene	6.42E-03	mg/L	4.10E-04	mg/kg-day	3.00E-02	mg/kg-day	1.37E-02
				2-Butanone	7.10E-02	mg/L	4.54E-03	mg/kg-day	6.00E-01	mg/kg-day	7.56E-03
				2-Hexanone	2.00E-03	mg/L	1.28E-04	mg/kg-day	8.00E-02	mg/kg-day	1.60E-03
				2-Methylnaphthalene	7.00E-04	mg/L	4.47E-05	mg/kg-day	4.00E-03	mg/kg-day	1.12E-02
				4-Methyl-2-pentanone	2.90E-02	mg/L	1.85E-03	mg/kg-day	8.00E-02	mg/kg-day	2.32E-02
				Acenaphthene	2.00E-03	mg/L	1.28E-04	mg/kg-day	6.00E-02	mg/kg-day	2.13E-03
				Acenaphthylene	2.00E-03	mg/L	1.28E-04	mg/kg-day	6.00E-02	mg/kg-day	2.13E-03
				Acetone	1.65E+00	mg/L	1.06E-01	mg/kg-day	9.00E-01	mg/kg-day	1.17E-01
				Aluminum	9.88E-01	mg/L	6.31E-02	mg/kg-day	1.00E+00	mg/kg-day	6.31E-02
				Antimony	1.43E-02	mg/L	9.13E-04	mg/kg-day	4.00E-04	mg/kg-day	2.28E+00
				Arsenic	1.98E-02	mg/L	1.27E-03	mg/kg-day	3.00E-04	mg/kg-day	4.22E+00
				Barium	2.70E-01	mg/L	1.72E-02	mg/kg-day	7.00E-02	mg/kg-day	2.46E-01
				Benzene	1.59E-02	mg/L	1.02E-03	mg/kg-day	4.00E-03	mg/kg-day	2.54E-01
				Benzo(a)anthracene	1.00E-04	mg/L	6.39E-06	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.00E-04	mg/L	6.39E-06	mg/kg-day	--	--	--
				Beryllium	1.41E-03	mg/L	9.03E-05	mg/kg-day	2.00E-03	mg/kg-day	4.52E-02
				bis(2-ethylhexyl)phthalate	7.09E-03	mg/L	4.54E-04	mg/kg-day	2.00E-02	mg/kg-day	2.27E-02
				Bromodichloromethane	7.10E-03	mg/L	4.54E-04	mg/kg-day	2.00E-02	mg/kg-day	2.27E-02
				Cadmium	1.60E-02	mg/L	1.02E-03	mg/kg-day	5.00E-04	mg/kg-day	2.05E+00
				Carbon disulfide	7.53E-03	mg/L	4.81E-04	mg/kg-day	1.00E-01	mg/kg-day	4.81E-03
				Chlorobenzene	6.07E-03	mg/L	3.88E-04	mg/kg-day	2.00E-02	mg/kg-day	1.94E-02
				Chloroethane	1.23E-02	mg/L	7.89E-04	mg/kg-day	4.00E-01	mg/kg-day	1.97E-03

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Ingestion (continued)	Chloroform	7.44E-03	mg/L	4.76E-04	mg/kg-day	1.00E-02	mg/kg-day	4.76E-02
				Chloromethane	7.26E-03	mg/L	4.64E-04	mg/kg-day	2.60E-02	mg/kg-day	1.78E-02
				Chromium	1.52E-01	mg/L	9.71E-03	mg/kg-day	1.50E+00	mg/kg-day	6.48E-03
				Chromium (VI)	4.72E-01	mg/L	3.02E-02	mg/kg-day	3.00E-03	mg/kg-day	1.01E+01
				cis-1,2-Dichloroethene	5.55E-02	mg/L	3.55E-03	mg/kg-day	1.00E-02	mg/kg-day	3.55E-01
				Cobalt	1.51E-02	mg/L	9.66E-04	mg/kg-day	2.00E-02	mg/kg-day	4.83E-02
				Copper	1.24E-02	mg/L	7.92E-04	mg/kg-day	4.00E-02	mg/kg-day	1.98E-02
				Cyanide	6.60E-02	mg/L	4.22E-03	mg/kg-day	2.00E-02	mg/kg-day	2.11E-01
				Ethylbenzene	7.18E-03	mg/L	4.59E-04	mg/kg-day	1.00E-01	mg/kg-day	4.59E-03
				Fluoranthene	1.80E-03	mg/L	1.15E-04	mg/kg-day	4.00E-02	mg/kg-day	2.88E-03
				Fluorene	1.00E-03	mg/L	6.39E-05	mg/kg-day	4.00E-02	mg/kg-day	1.60E-03
				Hexachlorobutadiene	4.00E-04	mg/L	2.56E-05	mg/kg-day	3.00E-04	mg/kg-day	8.52E-02
				Iron	1.70E+01	mg/L	1.09E+00	mg/kg-day	3.00E-01	mg/kg-day	3.62E+00
				Isopropylbenzene	5.50E-03	mg/L	3.52E-04	mg/kg-day	1.00E-01	mg/kg-day	3.52E-03
				Lead	7.38E-03	mg/L	4.72E-04	mg/kg-day	--	--	--
				m,p-Xylene	1.32E-02	mg/L	8.46E-04	mg/kg-day	2.00E-01	mg/kg-day	4.23E-03
				Manganese	9.91E+00	mg/L	6.33E-01	mg/kg-day	2.40E-02	mg/kg-day	2.64E+01
				Mercury	4.40E-05	mg/L	2.81E-06	mg/kg-day	3.00E-04	mg/kg-day	9.38E-03
				Methylene chloride	9.90E-03	mg/L	6.33E-04	mg/kg-day	6.00E-02	mg/kg-day	1.06E-02
				Methyl-T-Butyl-Ether	6.97E-03	mg/L	4.46E-04	mg/kg-day	8.60E-01	mg/kg-day	5.18E-04
				Molybdenum	7.50E-02	mg/L	4.79E-03	mg/kg-day	5.00E-03	mg/kg-day	9.59E-01
				Naphthalene	3.35E-02	mg/L	2.14E-03	mg/kg-day	2.00E-02	mg/kg-day	1.07E-01
				n-Butylbenzene	2.40E-03	mg/L	1.53E-04	mg/kg-day	4.00E-02	mg/kg-day	3.84E-03
				Nickel	1.83E-01	mg/L	1.17E-02	mg/kg-day	2.00E-02	mg/kg-day	5.84E-01
				n-Propylbenzene	1.22E-02	mg/L	7.82E-04	mg/kg-day	--	mg/kg-day	--
				o-Xylene	6.86E-03	mg/L	4.39E-04	mg/kg-day	2.00E-01	mg/kg-day	2.19E-03
				Phenanthrene	2.00E-03	mg/L	1.28E-04	mg/kg-day	3.00E-01	mg/kg-day	4.26E-04
				Phenol	6.60E-03	mg/L	4.22E-04	mg/kg-day	3.00E-01	mg/kg-day	1.41E-03
				p-Isopropyltoluene	8.00E-04	mg/L	5.11E-05	mg/kg-day	--	mg/kg-day	--
				Pyrene	3.00E-03	mg/L	1.92E-04	mg/kg-day	3.00E-02	mg/kg-day	6.39E-03
				sec-Butylbenzene	5.00E-04	mg/L	3.20E-05	mg/kg-day	4.00E-02	mg/kg-day	7.99E-04
				Selenium	1.08E-02	mg/L	6.91E-04	mg/kg-day	5.00E-03	mg/kg-day	1.38E-01
				Silver	5.48E-03	mg/L	3.50E-04	mg/kg-day	5.00E-03	mg/kg-day	7.00E-02
				Tert-Butanol	4.21E-01	mg/L	2.69E-02	mg/kg-day	--	mg/kg-day	--
				tert-Butylbenzene	3.00E-04	mg/L	1.92E-05	mg/kg-day	4.00E-02	mg/kg-day	4.79E-04
				Tetrachloroethene	5.84E-03	mg/L	3.74E-04	mg/kg-day	1.00E-02	mg/kg-day	3.74E-02
				Thallium	8.12E-03	mg/L	5.19E-04	mg/kg-day	6.60E-05	mg/kg-day	7.86E+00
				Toluene	6.35E-03	mg/L	4.06E-04	mg/kg-day	2.00E-01	mg/kg-day	2.03E-03
				trans-1,2-Dichloroethene	1.16E-02	mg/L	7.42E-04	mg/kg-day	2.00E-02	mg/kg-day	3.71E-02
				Trichloroethene	1.00E+00	mg/L	6.39E-02	mg/kg-day	3.00E-04	mg/kg-day	2.13E+02
				Vanadium	2.85E-02	mg/L	1.83E-03	mg/kg-day	7.00E-03	mg/kg-day	2.61E-01
				Vinyl chloride	2.54E-02	mg/L	1.62E-03	mg/kg-day	3.00E-03	mg/kg-day	5.41E-01

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Ingestion (continued)	Xylene (Total)	1.75E-02	mg/L	1.12E-03	mg/kg-day	2.00E-01	mg/kg-day	5.59E-03
				Zinc	1.50E-01	mg/L	9.57E-03	mg/kg-day	3.00E-01	mg/kg-day	3.19E-02
			Exposure Route Total								2.77E+02
			Dermal (bathing/ showering)	1,1,1-Trichloroethane	2.23E-02	mg/L	1.61E-04	mg/kg-day	2.80E-01	mg/kg-day	5.75E-04
				1,1,2-Trichloroethane	1.06E-02	mg/L	2.87E-05	mg/kg-day	4.00E-03	mg/kg-day	7.17E-03
				1,1-Dichlorethane	1.08E-01	mg/L	4.04E-04	mg/kg-day	1.00E-01	mg/kg-day	4.04E-03
				1,1-Dichlorethene	5.89E-01	mg/L	3.95E-03	mg/kg-day	5.00E-02	mg/kg-day	7.90E-02
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	4.51E-04	mg/kg-day	5.00E-02	mg/kg-day	9.01E-03
				1,2-Dichlorobenzene	1.34E-02	mg/L	3.72E-04	mg/kg-day	9.00E-02	mg/kg-day	4.13E-03
				1,2-Dichlorethane	1.25E-02	mg/L	2.81E-05	mg/kg-day	2.00E-02	mg/kg-day	1.41E-03
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	1.85E-03	mg/kg-day	1.00E-02	mg/kg-day	1.85E-01
				1,2-Dichloropropane	1.00E-04	mg/L	4.19E-07	mg/kg-day	1.10E-03	mg/kg-day	3.80E-04
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	4.23E-04	mg/kg-day	5.00E-02	mg/kg-day	8.46E-03
				1,3-Dichlorobenzene	4.50E-03	mg/L	1.47E-04	mg/kg-day	9.00E-04	mg/kg-day	1.63E-01
				1,4-Dichlorobenzene	6.42E-03	mg/L	1.68E-04	mg/kg-day	3.00E-02	mg/kg-day	5.60E-03
				2-Butanone	7.10E-02	mg/L	3.33E-05	mg/kg-day	6.00E-01	mg/kg-day	5.54E-05
				2-Hexanone	2.00E-03	mg/L	3.76E-06	mg/kg-day	8.00E-02	mg/kg-day	4.69E-05
				2-Methylnaphthalene	7.00E-04	mg/L	4.19E-05	mg/kg-day	4.00E-03	mg/kg-day	1.05E-02
				4-Methyl-2-pentanone	2.90E-02	mg/L	4.86E-05	mg/kg-day	8.00E-02	mg/kg-day	6.07E-04
				Acenaphthene	2.00E-03	mg/L	1.12E-04	mg/kg-day	6.00E-02	mg/kg-day	1.87E-03
				Acenaphthylene	2.00E-03	mg/L	1.19E-04	mg/kg-day	6.00E-02	mg/kg-day	1.98E-03
				Acetone	1.65E+00	mg/L	3.97E-04	mg/kg-day	9.00E-01	mg/kg-day	4.41E-04
				Aluminum	9.88E-01	mg/L	8.92E-04	mg/kg-day	1.00E+00	mg/kg-day	8.92E-04
				Antimony	1.43E-02	mg/L	6.57E-06	mg/kg-day	4.00E-04	mg/kg-day	1.64E-02
				Arsenic	1.98E-02	mg/L	1.61E-05	mg/kg-day	3.00E-04	mg/kg-day	5.38E-02
				Barium	2.70E-01	mg/L	4.58E-05	mg/kg-day	4.90E-03	mg/kg-day	9.36E-03
				Benzene	1.59E-02	mg/L	1.39E-04	mg/kg-day	4.00E-03	mg/kg-day	3.47E-02
				Benzo(a)anthracene	1.00E-04	mg/L	4.00E-05	mg/kg-day	--	--	--
				Benzo(a)pyrene	1.00E-04	mg/L	5.23E-05	mg/kg-day	--	--	--
				Beryllium	1.41E-03	mg/L	3.94E-07	mg/kg-day	1.40E-05	mg/kg-day	2.81E-02
				bis(2-ethylhexyl)phthalate	7.09E-03	mg/L	5.90E-03	mg/kg-day	2.00E-02	mg/kg-day	2.95E-01
				Bromodichloromethane	7.10E-03	mg/L	1.50E-05	mg/kg-day	2.00E-02	mg/kg-day	7.52E-04
				Cadmium	1.60E-02	mg/L	2.37E-06	mg/kg-day	5.00E-04	mg/kg-day	4.73E-03
				Carbon disulfide	7.53E-03	mg/L	4.95E-05	mg/kg-day	1.00E-01	mg/kg-day	4.95E-04
				Chlorobenzene	6.07E-03	mg/L	1.04E-04	mg/kg-day	2.00E-02	mg/kg-day	5.22E-03
				Chloroethane	1.23E-02	mg/L	4.16E-05	mg/kg-day	4.00E-01	mg/kg-day	1.04E-04
				Chloroform	7.44E-03	mg/L	2.80E-05	mg/kg-day	1.00E-02	mg/kg-day	2.80E-03
				Chloromethane	7.26E-03	mg/L	1.27E-05	mg/kg-day	2.60E-02	mg/kg-day	4.89E-04
				Chromium	1.52E-01	mg/L	6.41E-05	mg/kg-day	1.50E+00	mg/kg-day	4.27E-05
				Chromium (VI)	4.72E-01	mg/L	1.99E-04	mg/kg-day	3.00E-03	mg/kg-day	6.64E-02
				cis-1,2-Dichloroethene	5.55E-02	mg/L	3.49E-04	mg/kg-day	1.00E-02	mg/kg-day	3.49E-02
				Cobalt	1.51E-02	mg/L	7.72E-06	mg/kg-day	2.00E-02	mg/kg-day	3.86E-04

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Groundwater (continued)	Domestic Use of Groundwater (continued)	Dermal (bathing/ showering) (continued)	Copper	1.24E-02	mg/L	1.60E-06	mg/kg-day	4.00E-02	mg/kg-day	4.01E-05
				Cyanide	6.60E-02	mg/L	2.41E-05	mg/kg-day	2.00E-02	mg/kg-day	1.21E-03
				Ethylbenzene	7.18E-03	mg/L	2.24E-04	mg/kg-day	1.00E-01	mg/kg-day	2.24E-03
				Fluoranthene	1.80E-03	mg/L	3.90E-04	mg/kg-day	4.00E-02	mg/kg-day	9.74E-03
				Fluorene	1.00E-03	mg/L	7.21E-05	mg/kg-day	4.00E-02	mg/kg-day	1.80E-03
				Hexachlorobutadiene	4.00E-04	mg/L	2.04E-05	mg/kg-day	3.00E-04	mg/kg-day	6.81E-02
				Iron	1.70E+01	mg/L	1.77E-03	mg/kg-day	3.00E-01	mg/kg-day	5.90E-03
				Isopropylbenzene	5.50E-03	mg/L	3.25E-04	mg/kg-day	1.00E-01	mg/kg-day	3.25E-03
				Lead	7.38E-03	mg/L	1.06E-06	mg/kg-day	--	--	--
				m,p-Xylene	1.32E-02	mg/L	4.48E-04	mg/kg-day	2.00E-01	mg/kg-day	2.24E-03
				Manganese	9.91E+00	mg/L	5.35E-03	mg/kg-day	2.40E-02	mg/kg-day	2.23E-01
				Mercury	4.40E-05	mg/L	1.86E-08	mg/kg-day	2.10E-05	mg/kg-day	8.84E-04
				Methylene chloride	9.90E-03	mg/L	1.86E-05	mg/kg-day	6.00E-02	mg/kg-day	3.11E-04
				Methyl-T-Butyl-Ether	6.97E-03	mg/L	7.56E-06	mg/kg-day	8.60E-01	mg/kg-day	8.79E-06
				Molybdenum	7.50E-02	mg/L	2.28E-05	mg/kg-day	5.00E-03	mg/kg-day	4.56E-03
				Naphthalene	3.35E-02	mg/L	9.81E-04	mg/kg-day	2.00E-02	mg/kg-day	4.90E-02
				n-Butylbenzene	2.40E-03	mg/L	1.42E-04	mg/kg-day	4.00E-02	mg/kg-day	3.54E-03
				Nickel	1.83E-01	mg/L	2.54E-05	mg/kg-day	8.00E-04	mg/kg-day	3.17E-02
				n-Propylbenzene	1.22E-02	mg/L	7.22E-04	mg/kg-day	--	mg/kg-day	--
				o-Xylene	6.86E-03	mg/L	2.04E-04	mg/kg-day	2.00E-01	mg/kg-day	1.02E-03
				Phenanthrene	2.00E-03	mg/L	1.93E-04	mg/kg-day	3.00E-01	mg/kg-day	6.44E-04
				Phenol	6.60E-03	mg/L	1.54E-05	mg/kg-day	3.00E-01	mg/kg-day	5.13E-05
				p-Isopropyltoluene	8.00E-04	mg/L	4.73E-05	mg/kg-day	--	mg/kg-day	--
				Pyrene	3.00E-03	mg/L	4.10E-04	mg/kg-day	3.00E-02	mg/kg-day	1.37E-02
				sec-Butylbenzene	5.00E-04	mg/L	2.95E-05	mg/kg-day	--	mg/kg-day	--
				Selenium	1.08E-02	mg/L	4.12E-06	mg/kg-day	1.50E-03	mg/kg-day	2.74E-03
				Silver	5.48E-03	mg/L	1.41E-06	mg/kg-day	2.00E-04	mg/kg-day	7.04E-03
				Tert-Butanol	4.21E-01	mg/L	3.37E-04	mg/kg-day	--	mg/kg-day	--
				tert-Butylbenzene	3.00E-04	mg/L	1.77E-05	mg/kg-day	4.00E-02	mg/kg-day	4.43E-04
				Tetrachloroethene	5.84E-03	mg/L	1.19E-04	mg/kg-day	1.00E-02	mg/kg-day	1.19E-02
				Thallium	8.12E-03	mg/L	3.42E-06	mg/kg-day	6.60E-05	mg/kg-day	5.19E-02
				Toluene	6.35E-03	mg/L	1.21E-04	mg/kg-day	2.00E-01	mg/kg-day	6.07E-04
				trans-1,2-Dichloroethene	1.16E-02	mg/L	2.36E-04	mg/kg-day	2.00E-02	mg/kg-day	1.18E-02
				Trichloroethene	1.00E+00	mg/L	6.63E-03	mg/kg-day	3.00E-04	mg/kg-day	2.21E+01
				Vanadium	2.85E-02	mg/L	1.63E-05	mg/kg-day	1.82E-04	mg/kg-day	8.93E-02
				Vinyl chloride	2.54E-02	mg/L	1.21E-04	mg/kg-day	3.00E-03	mg/kg-day	4.03E-02
				Xylene (Total)	1.75E-02	mg/L	5.92E-04	mg/kg-day	2.00E-01	mg/kg-day	2.96E-03
				Zinc	1.50E-01	mg/L	2.16E-05	mg/kg-day	3.00E-01	mg/kg-day	7.20E-05
			Exposure Route Total								**2.38E+01**
		Exposure Point Total									**3.01E+02**
	Exposure Medium Total										**3.01E+02**

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air	Domestic Use of Groundwater Indoors	Inhalation (bathing/ showering)	1,1,1-Trichloroethane	2.23E-02	mg/L	3.00E-04	mg/kg-day	6.30E-01	mg/kg-day	4.75E-04
				1,1,2-Trichloroethane	1.06E-02	mg/L	1.42E-04	mg/kg-day	4.00E-03	mg/kg-day	3.55E-02
				1,1-Dichlorethane	1.08E-01	mg/L	1.45E-03	mg/kg-day	1.40E-01	mg/kg-day	1.04E-02
				1,1-Dichlorethene	5.89E-01	mg/L	7.91E-03	mg/kg-day	5.71E-02	mg/kg-day	1.38E-01
				1,2,4-Trimethylbenzene	1.13E-02	mg/L	1.52E-04	mg/kg-day	1.70E-03	mg/kg-day	8.93E-02
				1,2-Dichlorobenzene	1.34E-02	mg/L	1.79E-04	mg/kg-day	5.70E-02	mg/kg-day	3.15E-03
				1,2-Dichlorethane	1.25E-02	mg/L	1.68E-04	mg/kg-day	6.86E-01	mg/kg-day	2.44E-04
				1,2-Dichlorethene (Total)	2.94E-01	mg/L	3.94E-03	mg/kg-day	1.00E-02	mg/kg-day	3.94E-01
				1,2-Dichloropropane	1.00E-04	mg/L	1.34E-06	mg/kg-day	1.10E-03	mg/kg-day	1.22E-03
				1,3,5-Trimethylbenzene	1.06E-02	mg/L	1.43E-04	mg/kg-day	1.70E-03	mg/kg-day	8.39E-02
				1,3-Dichlorobenzene	4.50E-03	mg/L	6.04E-05	mg/kg-day	3.00E-02	mg/kg-day	2.01E-03
				1,4-Dichlorobenzene	6.42E-03	mg/L	8.62E-05	mg/kg-day	2.29E-01	mg/kg-day	3.77E-04
				2-Butanone	7.10E-02	mg/L	9.53E-04	mg/kg-day	1.43E+00	mg/kg-day	6.67E-04
				2-Hexanone	2.00E-03	mg/L	2.68E-05	mg/kg-day	8.60E-01	mg/kg-day	3.12E-05
				2-MethylNaphthalene	7.00E-04	mg/L	9.40E-06	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	2.90E-02	mg/L	3.89E-04	mg/kg-day	8.60E-01	mg/kg-day	4.53E-04
				Acenaphthene	2.00E-03	mg/L	2.68E-05	mg/kg-day	6.00E-02	mg/kg-day	4.47E-04
				Acenaphthylene	2.00E-03	mg/L	2.68E-05	mg/kg-day	6.00E-02	mg/kg-day	4.47E-04
				Acetone	1.65E+00	mg/L	2.22E-02	mg/kg-day	9.00E-01	mg/kg-day	2.47E-02
				Benzene	1.59E-02	mg/L	2.13E-04	mg/kg-day	8.57E-03	mg/kg-day	2.49E-02
				Bromodichloromethane	7.10E-03	mg/L	9.53E-05	mg/kg-day	2.00E-02	mg/kg-day	4.77E-03
				Carbon disulfide	7.53E-03	mg/L	1.01E-04	mg/kg-day	2.00E-01	mg/kg-day	5.05E-04
				Chlorobenzene	6.07E-03	mg/L	8.15E-05	mg/kg-day	1.71E-02	mg/kg-day	4.76E-03
				Chloroethane	1.23E-02	mg/L	1.66E-04	mg/kg-day	2.90E+00	mg/kg-day	5.72E-05
				Chloroform	7.44E-03	mg/L	9.99E-05	mg/kg-day	1.40E-04	mg/kg-day	7.14E-01
				Chloromethane	7.26E-03	mg/L	9.75E-05	mg/kg-day	2.57E-02	mg/kg-day	3.79E-03
				cis-1,2-Dichloroethene	5.55E-02	mg/L	7.45E-04	mg/kg-day	1.00E-02	mg/kg-day	7.45E-02
				Cyanide	6.60E-02	mg/L	8.86E-04	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	7.18E-03	mg/L	9.65E-05	mg/kg-day	2.86E-01	mg/kg-day	3.38E-04
				Fluorene	1.00E-03	mg/L	1.34E-05	mg/kg-day	4.00E-02	mg/kg-day	3.36E-04
				Hexachlorobutadiene	4.00E-04	mg/L	5.37E-06	mg/kg-day	3.00E-04	mg/kg-day	1.79E-02
				Isopropylbenzene	5.50E-03	mg/L	7.38E-05	mg/kg-day	1.10E-01	mg/kg-day	6.71E-04
				m,p-Xylene	1.32E-02	mg/L	1.78E-04	mg/kg-day	2.86E-02	mg/kg-day	6.22E-03
				Methylene Chloride	9.90E-03	mg/L	1.33E-04	mg/kg-day	8.57E-01	mg/kg-day	1.55E-04
				Methyl-T-Butyl-ether	6.97E-03	mg/L	9.36E-05	mg/kg-day	8.57E-01	mg/kg-day	1.09E-04
				Naphthalene	3.35E-02	mg/L	4.50E-04	mg/kg-day	8.57E-04	mg/kg-day	5.24E-01
				n-Butylbenzene	2.40E-03	mg/L	3.22E-05	mg/kg-day	1.14E-02	mg/kg-day	2.82E-03
				n-propylbenzene	1.22E-02	mg/L	1.64E-04	mg/kg-day	4.00E-02	mg/kg-day	4.10E-03
				o-Xylene	6.86E-03	mg/L	9.21E-05	mg/kg-day	2.86E-02	mg/kg-day	3.22E-03
				Phenanthrene	2.00E-03	mg/L	2.68E-05	mg/kg-day	3.00E-01	mg/kg-day	8.95E-05
				Pyrene	3.00E-03	mg/L	4.03E-05	mg/kg-day	3.00E-02	mg/kg-day	1.34E-03
				sec-Butylbenzene	5.00E-04	mg/L	6.71E-06	mg/kg-day	1.14E-02	mg/kg-day	5.87E-04

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air (continued)	Domestic Use of Groundwater Indoors (continued)	Inhalation (bathing/ showering) (continued)	tert-Butylbenzene	3.00E-04	mg/L	4.03E-06	mg/kg-day	1.14E-02	mg/kg-day	3.52E-04
				trans-1,2-Dichloroethene	1.16E-02	mg/L	1.56E-04	mg/kg-day	2.00E-02	mg/kg-day	7.79E-03
				Tetrachloroethene	5.84E-03	mg/L	7.85E-05	mg/kg-day	1.71E-01	mg/kg-day	4.58E-04
				Toluene	6.35E-03	mg/L	8.52E-05	mg/kg-day	1.14E-01	mg/kg-day	7.46E-04
				Trichloroethene	1.00E+00	mg/L	1.34E-02	mg/kg-day	1.00E-02	mg/kg-day	1.34E+00
				Vinyl chloride	2.54E-02	mg/L	3.41E-04	mg/kg-day	2.86E-02	mg/kg-day	1.19E-02
				Xylene (Total)	1.75E-02	mg/L	2.35E-04	mg/kg-day	2.86E-02	mg/kg-day	8.22E-03
			Exposure Route Total								**3.55E+00**
		Exposure Point Total									**3.55E+00**
		Indoor Air	Inhalation (Vapor Intrusion)	1,1,1-Trichloroethane	2.01E-03	mg/m^3	1.30E-03	mg/kg-day	6.30E-01	mg/kg-day	2.06E-03
				1,1,2-Trichloroethane	4.59E-05	mg/m^3	2.95E-05	mg/kg-day	4.00E-03	mg/kg-day	7.39E-03
				1,1-Dichlorethane	3.16E-03	mg/m^3	2.04E-03	mg/kg-day	1.40E-01	mg/kg-day	1.45E-02
				1,1-Dichlorethene	9.92E-02	mg/m^3	6.39E-02	mg/kg-day	5.71E-02	mg/kg-day	1.12E+00
				1,2,4-Trimethylbenzene	2.33E-04	mg/m^3	1.50E-04	mg/kg-day	1.70E-03	mg/kg-day	8.85E-02
				1,2-Dichlorobenzene	9.49E-05	mg/m^3	6.12E-05	mg/kg-day	5.70E-02	mg/kg-day	1.07E-03
				1,2-Dichlorethane	7.70E-05	mg/m^3	4.96E-05	mg/kg-day	6.86E-01	mg/kg-day	7.24E-05
				1,2-Dichlorethene (Total)	6.08E-03	mg/m^3	3.92E-03	mg/kg-day	1.00E-02	mg/kg-day	3.92E-01
				1,2-Dichloropropane	1.41E-06	mg/m^3	9.06E-07	mg/kg-day	1.10E-03	mg/kg-day	8.24E-04
				1,3,5-Trimethylbenzene	2.08E-04	mg/m^3	1.34E-04	mg/kg-day	1.70E-03	mg/kg-day	7.90E-02
				1,3-Dichlorobenzene	5.39E-05	mg/m^3	3.47E-05	mg/kg-day	3.00E-02	mg/kg-day	1.16E-03
				1,4-Dichlorobenzene	5.92E-05	mg/m^3	3.81E-05	mg/kg-day	2.29E-01	mg/kg-day	1.67E-04
				2-Butanone	2.35E-05	mg/m^3	1.52E-05	mg/kg-day	1.43E+00	mg/kg-day	1.06E-05
				2-Hexanone	1.31E-06	mg/m^3	8.46E-07	mg/kg-day	8.60E-01	mg/kg-day	9.83E-07
				2-MethylNaphthalene	8.28E-07	mg/m^3	5.33E-07	mg/kg-day	--	--	--
				4-Methyl-2-pentanone	1.90E-05	mg/m^3	1.23E-05	mg/kg-day	8.60E-01	mg/kg-day	1.43E-05
				Acenaphthene	6.52E-07	mg/m^3	4.20E-07	mg/kg-day	6.00E-02	mg/kg-day	7.00E-06
				Acenaphthylene	6.52E-07	mg/m^3	4.20E-07	mg/kg-day	6.00E-02	mg/kg-day	7.00E-06
				Acetone	5.45E-04	mg/m^3	3.51E-04	mg/kg-day	9.00E-01	mg/kg-day	3.90E-04
				Benzene	5.01E-04	mg/m^3	3.23E-04	mg/kg-day	8.57E-03	mg/kg-day	3.77E-02
				Bromodichloromethane	2.55E-05	mg/m^3	1.65E-05	mg/kg-day	2.00E-02	mg/kg-day	8.23E-04
				Carbon disulfide	1.61E-03	mg/m^3	1.04E-03	mg/kg-day	2.00E-01	mg/kg-day	5.18E-03
				Chlorobenzene	9.89E-05	mg/m^3	6.37E-05	mg/kg-day	1.71E-02	mg/kg-day	3.72E-03
				Chloroethane	1.47E-03	mg/m^3	9.46E-04	mg/kg-day	2.90E+00	mg/kg-day	3.26E-04
				Chloroform	1.82E-04	mg/m^3	1.17E-04	mg/kg-day	1.40E-04	mg/kg-day	8.39E-01
				Chloromethane	5.88E-04	mg/m^3	3.79E-04	mg/kg-day	2.57E-02	mg/kg-day	1.47E-02
				cis-1,2-Dichloroethene	1.15E-03	mg/m^3	7.41E-04	mg/kg-day	1.00E-02	mg/kg-day	7.41E-02
				Cyanide	9.60E-05	mg/m^3	6.18E-05	mg/kg-day	--	mg/kg-day	--
				Ethylbenzene	2.48E-04	mg/m^3	1.60E-04	mg/kg-day	2.86E-01	mg/kg-day	5.60E-04
				Fluorene	1.34E-07	mg/m^3	8.64E-08	mg/kg-day	4.00E-02	mg/kg-day	2.16E-06
				Hexachlorobutadiene	9.57E-06	mg/m^3	6.17E-06	mg/kg-day	3.00E-04	mg/kg-day	2.06E-02
				Isopropylbenzene	2.12E-02	mg/m^3	1.37E-02	mg/kg-day	1.10E-01	mg/kg-day	1.24E-01
				m,p-Xylene	4.52E-04	mg/m^3	2.91E-04	mg/kg-day	2.86E-02	mg/kg-day	1.02E-02

Continue

TABLE F-7.1.8.RME
EPA RAGS PART D TABLE 7b
CALCULATION OF RME CHEMICAL NONCANCER HAZARDS (Continued)
HYPOTHETICAL FUTURE REDEVELOPED CHILD RESIDENT
SITE 3, ALAMEDA POINT, ALAMEDA, CALIFORNIA

Scenario Timeframe:	Hypothetical Future Redeveloped
Receptor Population:	Resident
Receptor Age:	Child

Medium	Exposure Medium	Exposure Point	Exposure Route	Chemical of Potential Concern	EPC		Non-Cancer Hazard Calculations				
					Value	Units	Intake/Exposure Concentration		RfD/RfC		Hazard Quotient
							Value	Units	Value	Units	
Groundwater (continued)	Air (continued)	Indoor Air (continued)	Inhalation (Vapor Intrusion) (continued)	Methylene Chloride	1.47E-04	mg/m^3	9.46E-05	mg/kg-day	8.57E-01	mg/kg-day	1.10E-04
				Methyl-T-Butyl-ether	2.95E-05	mg/m^3	1.90E-05	mg/kg-day	8.57E-01	mg/kg-day	2.22E-05
				Naphthalene	5.03E-05	mg/m^3	3.24E-05	mg/kg-day	8.57E-04	mg/kg-day	3.78E-02
				n-Butylbenzene	9.94E-05	mg/m^3	6.41E-05	mg/kg-day	1.14E-02	mg/kg-day	5.61E-03
				n-propylbenzene	4.44E-04	mg/m^3	2.86E-04	mg/kg-day	4.00E-02	mg/kg-day	7.15E-03
				o-Xylene	1.73E-04	mg/m^3	1.11E-04	mg/kg-day	2.86E-02	mg/kg-day	3.90E-03
				Phenanthrene	1.75E-07	mg/m^3	1.13E-07	mg/kg-day	3.00E-01	mg/kg-day	3.77E-07
				Pyrene	6.77E-08	mg/m^3	4.36E-08	mg/kg-day	3.00E-02	mg/kg-day	1.45E-06
				sec-Butylbenzene	5.50E-08	mg/m^3	3.54E-08	mg/kg-day	1.14E-02	mg/kg-day	3.10E-06
				tert-Butylbenzene	1.30E-05	mg/m^3	8.37E-06	mg/kg-day	1.14E-02	mg/kg-day	7.32E-04
				trans-1,2-Dichloroethene	9.43E-04	mg/m^3	6.08E-04	mg/kg-day	2.00E-02	mg/kg-day	3.04E-02
				Tetrachloroethene	4.75E-04	mg/m^3	3.06E-04	mg/kg-day	1.71E-01	mg/kg-day	1.78E-03
				Toluene	2.22E-04	mg/m^3	1.43E-04	mg/kg-day	1.14E-01	mg/kg-day	1.25E-03
				Trichloroethene	5.23E-02	mg/m^3	3.37E-02	mg/kg-day	1.00E-02	mg/kg-day	3.37E+00
				Vinyl chloride	5.47E-03	mg/m^3	3.52E-03	mg/kg-day	2.86E-02	mg/kg-day	1.23E-01
				Xylene (Total)	5.96E-04	mg/m^3	3.84E-04	mg/kg-day	2.86E-02	mg/kg-day	1.35E-02
			Exposure Route Total								**6.43E+00**
		Exposure Point Total									**6.43E+00**
	Exposure Medium Total										**9.98E+00**
Medium Total											**3.11E+02**
										Total of Receptor Hazards Across All Media	**3.17E+02**

Notes:

--	Not applicable or not available
EPA	U.S. Environmental Protection Agency
EPC	Exposure point concentration
ft bgs	Feet below ground surface
mg/kg	Milligram per kilogram
mg/kg-day	Milligram per kilogram per day
mg/L	Milligram per liter
mg/m^3	Milligram per cubic meter
RAGS	Risk Assessment Guidelines for Superfund
RfD	Reference dose
RfC	Reference concentration
RI	Remedial Investigation
RME	Reasonable maximum expsoure
VOC	Volatile Organic Compound

(a) See the Vapor Intrusion to Indoor Air Evaluation for determination of the modeled indoor air concentration.