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## APPENDIX C

# Tabulated Groundwater Analytical Results

**TABLE C-1**  
**MAY 2007 GROUNDWATER INVESTIGATIN ANALYTICAL DATA**  
**CAP SANTE MARINE ANACORTES, WA**

	MW-01 KX91C/H 5/3/2007	MW-02 KX91A/F 5/3/2007	MW-03S KX91B/G 5/3/2007	MW-04 KX91D/I 5/3/2007	SBW-1 LA86A,C / LD18A 5/24/2007	SBW-1b LA86B,D / LD18B 5/24/2007
<b>DIESEL-RANGE HYDROCARBONS</b>						
<b>NWTPH-Dx (mg/L)</b>						
Diesel	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U
Motor Oil	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U	0.50 U
<b>GASOLINE-RANGE HYDROCARBONS</b>						
<b>NWTPH-G (mg/L)</b>						
Gasoline	0.25 U	0.25 U	2.8	0.25 U	0.25 U	0.25 U
<b>METHANE/ETHANE/ETHENE</b>						
<b>EPA Method RSK-175 (µg/L)</b>						
Methane	5660	8750	3390	1300	1760	2020
Ethane	1.2 U	1.6	1.2 U	1.2 U	1.2 U	1.2 U
Ethene	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U	1.1 U
<b>VOLATILE ORGANIC COMPOUNDS (VOCs)</b>						
<b>EPA Method 8260B (µg/L)</b>						
Chloromethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromomethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Vinyl Chloride	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Methylene Chloride	1.5 U	1.5 U	0.3 U	0.3 U	0.3 U	0.3 U
Acetone	15 U	15 U	290 M	3.0 U	3.0 U	3.0 U
Carbon Disulfide	1.0 U	1.0 U	0.6	0.3	0.2 U	0.2 U
1,1-Dichloroethene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1-Dichloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
trans-1,2-Dichloroethene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,2-Dichloroethene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Chloroform	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Butanone	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Carbon Tetrachloride	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Vinyl Acetate	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromodichloromethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dichloropropane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
cis-1,3-Dichloropropene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichloroethene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibromochloromethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Benzene	1.0 U	1.0 U	610	0.2 U	0.2 U	1.0
trans-1,3-Dichloropropene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Chloroethylvinylether	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U

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**CAP SANTE MARINE ANACORTES, WA**

	MW-01 KX91C/H 5/3/2007	MW-02 KX91A/F 5/3/2007	MW-03S KX91B/G 5/3/2007	MW-04 KX91D/I 5/3/2007	SBW-1 LA86A,C / LD18A 5/24/2007	SBW-1b LA86B,D / LD18B 5/24/2007
4-Methyl-2-Pentanone (MIBK)	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
2-Hexanone	15 U	15 U	3.0 U	3.0 U	3.0 U	3.0 U
Tetrachloroethene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2,2-Tetrachloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Toluene	1.0 U	1.0 U	39	0.2 U	0.2 U	0.2 U
Chlorobenzene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Ethylbenzene	1.0 U	1.0 U	85	0.2 U	0.2 U	0.2 U
Styrene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Trichlorofluoromethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
m,p-Xylene	2.0 U	2.0 U	290	0.4 U	0.4 U	0.4 U
o-Xylene	1.0 U	1.0 U	37	0.2 U	0.2 U	0.2 U
1,2-Dichlorobenzene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichlorobenzene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,4-Dichlorobenzene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Acrolein	25 U	25 U	5.0 U	5.0 U	5.0 U	5.0 U
Methyl Iodide	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromoethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Acrylonitrile	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloropropene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Dibromomethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,1,1,2-Tetrachloroethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,2-Dibromo-3-chloropropane	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-Trichloropropane	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,4-Dichloro-2-butene	5.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-Trimethylbenzene	1.0 U	1.0 U	26	0.2 U	0.2 U	0.2 U
1,2,4-Trimethylbenzene	1.0 U	1.0 U	97	0.2 U	0.2 U	0.2 U
Hexachlorobutadiene	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylene Dibromide	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromochloromethane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
2,2-Dichloropropane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
1,3-Dichloropropane	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Isopropylbenzene	1.0 U	1.0 U	12	0.2 U	0.2 U	0.2 U
n-Propylbenzene	1.0 U	1.0 U	12	0.2 U	0.2 U	0.2 U
Bromobenzene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
2-Chlorotoluene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
4-Chlorotoluene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
tert-Butylbenzene	1.0 U	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
sec-Butylbenzene	1.0 U	1.0 U	1.8	0.2 U	0.2 U	0.2 U
4-Isopropyltoluene	1.0 U	1.0 U	1.7	0.2 U	0.2 U	0.2 U
n-Butylbenzene	1.0 U	1.0 U	5.0	0.2 U	0.2 U	0.2 U
1,2,4-Trichlorobenzene	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Naphthalene	2.5 U	2.5 U	25 J	0.5 U	0.5 U	0.5 U
1,2,3-Trichlorobenzene	2.5 U	2.5 U	0.5 U	0.5 U	0.5 U	0.5 U

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Methyl tert-Butyl Ether	1.6	1.0 U	0.2 U	0.2 U	0.2 U	0.2 U
Hexane	0.2 U	0.2 U	16	0.2 U	0.2 U	0.2 U
<b>POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)</b>						
<b>EPA Method SW8270D-SIM (µg/L)</b>						
Naphthalene	0.10 U	0.10 U	30	0.10 U	0.10 U	0.10 U
2-Methylnaphthalene	0.10 U	0.10 U	26	0.10 U	0.10 U	0.10 U
1-Methylnaphthalene	0.10 U	0.10 U	19	0.10 U	0.10 U	0.10 U
Acenaphthylene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Acenaphthene	0.10 U	0.27	1.6	0.10 U	0.10 U	0.10 U
Fluorene	0.10 U	0.15	0.79	0.10 U	0.10 U	0.10 U
Phenanthrene	0.10 U	0.24	0.80	0.10 U	0.10 U	0.10 U
Anthracene	0.10 U	0.10 U	0.11	0.10 U	0.10 U	0.10 U
Fluoranthene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Pyrene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(a)anthracene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Chrysene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(b)fluoranthene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(k)fluoranthene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(a)pyrene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Indeno(1,2,3-cd)pyrene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Dibenzo(a,h)anthracene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Benzo(ghi)perylene	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U
Dibenzofuran	0.10 U	0.10 U	0.39	0.10 U	0.10 U	0.10 U
<b>TOTAL METALS</b>						
<b>EPA Method 200.8 (µg/L)</b>						
Lead	1 U	4	1 U	1 U	1 U	2 U
<b>DISSOLVED METALS</b>						
<b>EPA Method 200.8 (µg/L)</b>						
Lead	1 U	1 U	1 U	2 U	2 U	2 U
Manganese	127	680	385	157	172	140
Magnesium	NA	NA	NA	NA	572,000	563,000
<b>HEXAVALENT CHROMIUM</b>						
<b>EPA Method 3500CRD (mg/L)</b>						
Hexavalent chromium	0.010 UJ	0.010 UJ	0.012 J	0.010 UJ	0.011 UJ	0.011 U
<b>CONVENTIONAL CHEMISTRY PARAMETERS</b>						
Conductivity (umhos/cm)	2600	12900	14800	23800	21800	21000
Total Dissolved Solids (mg/L)	1460	7770	9030	15500	14800	14400

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Salinity (ppt)	1.30	7.20	8.50	14.2	12.9	12.5
Chloride (mg/L)	495	3950	4950	8940	8130	7900
Nitrate (mg/L)	2.0 UJ	2.0 UJ	2.0 UJ	2.0 UJ	2.0 U	2.0 U
Sulfate (mg/L)	83.5	463	260	1190	1070	1050
<b>FIELD PARAMETERS</b>						
pH (Standard Units)	7.65	7.42	7.42	7.92	7.41	7.41
Conductivity ( $\mu$ S/cm)	1,926	12,375	11,284	22,800	17,973	17,973
Turbidity (NTU)	low	999	low	361	4.5	4.5
Dissolved Oxygen (mg/L)	0.00	-0.05	0.00	-0.06	1.75	1.75
Temperature (°C)	13.2	10.7	11.3	11.9	17.0	17.0
Ferrous Iron (mg/L)	0.8	0.9	0.4	0.6	1.8	1.8

mg/L = milligrams per liter (ppm).

$\mu$ g/L = micrograms per liter (ppb).

U = The compound was not detected at the given reporting limit

UJ = The compound was not detected; the given reporting limit is an estimate

J = The compound was detected; the given concentration is an estimate

M = Estimated value detected and confirmed by analyst, but with low spectral match parameters