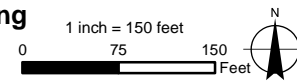


**Actual Sediment Core Sample Locations  
Cabrillo Beach Eelgrass Mitigation Site Design, Construction, and Monitoring  
Sediment Characterization Study  
Port of Los Angeles**



**FIGURE**

**1**



**Table 1.**  
**Cabrillo Beach Eelgrass Mitigation Site, Design, Construction, and Monitoring**  
**Port of Los Angeles**  
**Analytical Chemistry Results**

Analytical Method	Compound Name	Type	Units	ERL	ERM	ICB2014-1	ICB2014-2
SM 2540 B (M)	Solids, Total	General Chemistry	%	.	.	85.3	83.1
EPA 9060A	Total Organic Carbon	General Chemistry	%	.	.	0.25	0.30
EPA 6020	Arsenic	Metals	mg/kg	<b>8.2</b>	<b>70</b>	2.21	2.88
EPA 6020	Cadmium	Metals	mg/kg	<b>1.2</b>	<b>9.6</b>	0.147	0.204
EPA 6020	Chromium	Metals	mg/kg	<b>81</b>	<b>370</b>	6.20	7.32
EPA 6020	Copper	Metals	mg/kg	<b>34</b>	<b>270</b>	2.91	3.55
EPA 6020	Lead	Metals	mg/kg	<b>46.7</b>	<b>218</b>	2.40	3.33
EPA 7471A	Mercury	Metals	mg/kg	<b>0.15</b>	<b>0.71</b>	ND	0.0262
EPA 6020	Nickel	Metals	mg/kg	<b>20.9</b>	<b>51.6</b>	4.33	5.01
EPA 6020	Selenium	Metals	mg/kg	.	.	0.176	ND
EPA 6020	Silver	Metals	mg/kg	<b>1.0</b>	<b>3.7</b>	ND	ND
EPA 6020	Zinc	Metals	mg/kg	<b>150</b>	<b>410</b>	17.3	20.9
EPA 418.1M	TRPH	TRPH	mg/kg	.	.	25	23
EPA 8270C SIM	1-Methylnaphthalene	LMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	1-Methylphenanthrene	LMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	1,6,7-Trimethylnaphthalene	LMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	2-Methylnaphthalene	LMW PAH	µg/kg	<b>70</b>	<b>670</b>	ND	ND
EPA 8270C SIM	2,6-Dimethylnaphthalene	LMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Acenaphthene	LMW PAH	µg/kg	<b>16</b>	<b>500</b>	ND	ND
EPA 8270C SIM	Acenaphthylene	LMW PAH	µg/kg	<b>44</b>	<b>640</b>	ND	ND
EPA 8270C SIM	Anthracene	LMW PAH	µg/kg	<b>85.3</b>	<b>1100</b>	ND	ND
EPA 8270C SIM	Naphthalene	LMW PAH	µg/kg	<b>160</b>	<b>2100</b>	ND	ND
EPA 8270C SIM	Phenanthrene	LMW PAH	µg/kg	<b>240</b>	<b>1500</b>	ND	ND
EPA 8270C SIM	Fluorene	LMW PAH	µg/kg	<b>19</b>	<b>540</b>	ND	ND
EPA 8270C SIM	Benzo (a) Anthracene	HMW PAH	µg/kg	<b>261</b>	<b>1600</b>	ND	ND
EPA 8270C SIM	Benzo (a) Pyrene	HMW PAH	µg/kg	<b>430</b>	<b>1600</b>	ND	ND
EPA 8270C SIM	Benzo (b) Fluoranthene	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Benzo (g,h,i) Perylene	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Benzo (k) Fluoranthene	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Dibenz (a,h) Anthracene	HMW PAH	µg/kg	<b>63.4</b>	<b>260</b>	ND	ND
EPA 8270C SIM	Chrysene	HMW PAH	µg/kg	<b>384</b>	<b>2800</b>	ND	ND
EPA 8270C SIM	DCPA	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Fluoranthene	HMW PAH	µg/kg	<b>600</b>	<b>5100</b>	ND	ND
EPA 8270C SIM	Indeno (1,2,3-c,d) Pyrene	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Isophorone	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Pyrene	HMW PAH	µg/kg	<b>665</b>	<b>2600</b>	ND	ND
EPA 8270C SIM	Dibenzothiophene	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Benzo (e) Pyrene	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Perthane	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Perylene	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Benzoic Acid	HMW PAH	µg/kg	.	.	ND	ND
EPA 8270C SIM	Biphenyl	HMW PAH	µg/kg	.	.	ND	ND
	Total Detectable PAHs	PAH	µg/kg	<b>4022</b>	<b>44792</b>	ND	ND
EPA 8270C SIM	2,4,5-Trichlorophenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	2,4,6-Trichlorophenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	2,4-Dichlorophenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	2,4-Dimethylphenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	2,4-Dinitrophenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	2-Chlorophenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	2-Methylphenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	2-Nitrophenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	3/4-Methylphenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	4,6-Dinitro-2-Methylphenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	4-Chloro-3-Methylphenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	4-Nitrophenol	Phenol	µg/kg	.	.	ND	ND
EPA 8270C SIM	Pentachlorophenol	Phenol	µg/kg	.	.	ND	ND

**Table 1.**  
**Cabrillo Beach Eelgrass Mitigation Site, Design, Construction, and Monitoring**  
**Port of Los Angeles**  
**Analytical Chemistry Results**

Analytical Method	Compound Name	Type	Units	ERL	ERM	ICB2014-1	ICB2014-2
EPA 8270C SIM	Phenol	Phenol	µg/kg	·	·	ND	ND
EPA 8270C SIM	2,3,4,6-Tetrachlorophenol	Phenol	µg/kg	·	·	ND	ND
EPA 8270C SIM	2,6-Dichlorophenol	Phenol	µg/kg	·	·	ND	ND
EPA 8270C SIM	Bis(2-Ethylhexyl) Phthalate	Phthalate	µg/kg	·	·	20	ND
EPA 8270C SIM	Butyl Benzyl Phthalate	Phthalate	µg/kg	·	·	ND	ND
EPA 8270C SIM	Di-n-Butyl Phthalate	Phthalate	µg/kg	·	·	ND	ND
EPA 8270C SIM	Di-n-Octyl Phthalate	Phthalate	µg/kg	·	·	ND	ND
EPA 8270C SIM	Diethyl Phthalate	Phthalate	µg/kg	·	·	ND	ND
EPA 8270C SIM	Dimethyl Phthalate	Phthalate	µg/kg	·	·	250	340
EPA 8081A	2,4'-DDD	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	2,4'-DDE	Chlorinated Pesticides	µg/kg	·	·	1.2	2.2
EPA 8081A	2,4'-DDT	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	4,4'-DDD	Chlorinated Pesticides	µg/kg	<b>2.0</b>	<b>20</b>	1.6	2.3
EPA 8081A	4,4'-DDE	Chlorinated Pesticides	µg/kg	<b>2.2</b>	<b>27</b>	<b>8.6</b>	<b>13</b>
EPA 8081A	4,4'-DDT	Chlorinated Pesticides	µg/kg	<b>1.0</b>	<b>7.0</b>	ND	ND
	Total Detectable DDTs	Chlorinated Pesticides	µg/kg	<b>1.58</b>	<b>46.1</b>	<b>11.4</b>	<b>17.5</b>
EPA 8081A	Aldrin	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Alpha-BHC	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Beta-BHC	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Delta-BHC	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Gamma-BHC	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Chlordane	Chlorinated Pesticides	µg/kg	<b>0.5</b>	<b>6.0</b>	ND	ND
EPA 8081A	Dieldrin	Chlorinated Pesticides	µg/kg	<b>0.02</b>	<b>8.0</b>	ND	ND
EPA 8081A	Trans-nonachlor	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Endosulfan I	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Endosulfan II	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Endosulfan Sulfate	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Endrin	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Endrin Aldehyde	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Endrin Keytone	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Heptachlor	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Heptachlor Epoxide	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Methoxychlor	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Toxaphene	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Alpha Chlordane	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Gamma Chlordane	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Cis-nonachlor	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8081A	Oxychlordane	Chlorinated Pesticides	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB018	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB028	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB037	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB044	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB049	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB052	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB066	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB070	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB074	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB077	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB081	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB087	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB099	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB101	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB105	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB110	PCB Congeners	µg/kg	·	·	ND	ND

**Table 1.**  
**Cabrillo Beach Eelgrass Mitigation Site, Design, Construction, and Monitoring**  
**Port of Los Angeles**  
**Analytical Chemistry Results**

Analytical Method	Compound Name	Type	Units	ERL	ERM	ICB2014-1	ICB2014-2
EPA 8270C SIM PCB Congeners	PCB114	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB118	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB119	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB123	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB126	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB128	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB138/158	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB149	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB151	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB153	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB156	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB157	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB167	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB168	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB169	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB170	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB177	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB180	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB183	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB187	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB189	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB194	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB201	PCB Congeners	µg/kg	·	·	ND	ND
EPA 8270C SIM PCB Congeners	PCB206	PCB Congeners	µg/kg	·	·	ND	ND
	Total Detectable PCBs	PCB Congeners	µg/kg	<b>22.7</b>	<b>180</b>	ND	ND
EPA 8270D (M)/TQ/EI	Allethrin	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Bifenthrin	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Cyfluthrin	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Cypermethrin	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Deltamethrin/Tralomethrin	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Fenpropathrin	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Fenvalerate/Esfenvalerate	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Fluvalinate	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Permethrin - (cis/trans)	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Phenothrin	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Resmethrin/Bioresmethrin	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Tetramethrin	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	lambda-Cyhalothrin	Pyrethroids	µg/kg	·	·	ND	ND
EPA 8270D (M)/TQ/EI	Total Pyrethroids	Pyrethroids	µg/kg	·	·	ND	ND
Organotins By Krone et al.	Dibutyltin	Organotins	µg/kg	·	·	ND	ND
Organotins By Krone et al.	Monobutyltin	Organotins	µg/kg	·	·	ND	ND
Organotins By Krone et al.	Tetrabutyltin	Organotins	µg/kg	·	·	ND	ND
Organotins By Krone et al.	Tributyltin	Organotins	µg/kg	·	·	ND	ND

**Notes:**

ERL - Effects Range-Low

ERM - Effects Range-Median

mg - milligrams

kg - kilograms

µg - micrograms

ND - non-detect

PAH-polycyclic aromatic hydrocarbon

PCB - polychlorinated biphenyl congener

TRPH - total recoverable petroleum hydrocarbons

LMW - low molecular weight

HMW - high molecular weight

**Table 2.**  
**Cabrillo Beach Eelgrass Mitigation Site, Design, Construction, and Monitoring**  
**Port of Los Angeles**  
**Grain Size Results**

Location	Total Gravel (%)	Very Coarse Sand (%)	Coarse Sand (%)	Medium Sand (%)	Fine Sand (%)	Very Fine Sand (%)	Total Sand (%)	Silt (%)	Clay (%)	Total Silt&Clay (%)	Mean Grain Size (mm)	Plumb (1981) Grain Size Classification	USCS Classification
ICB2014-1	0.00	0.830	26.2	51.0	18.0	1.94	97.9	1.48	0.610	2.09	0.403	Medium Sand	Sand
ICB2014-2	0.00	0.090	23.5	56.5	16.7	1.34	98.1	1.38	0.540	1.92	0.391	Medium Sand	Sand

% - percent  
mm - millimeters  
USCS - United Soil Classification System