

EPA Dumping at Sea Permit Application - Material Analysis Reporting Form (Version 1.0)
Sheet 4. QA

Reference Type	Reference Material	OC %	TEH g kg ⁻¹	Cu mg kg ⁻¹	Zn mg kg ⁻¹	Cd mg kg ⁻¹	Hg mg kg ⁻¹	Pb mg kg ⁻¹	As mg kg ⁻¹	Cr mg kg ⁻¹	Ni mg kg ⁻¹
CRM (result)	1941b, BCR-646, 2702		0.000092~	89.6	483	2.4	0.03	130	44.2	302	65.1
CRM (certified value)				117.7	485.3	0.817	0.4474	132.8	45.3	352	75.4
Blank		<0.02	<0.0001	<2	<3	<0.1	<0.01	<2	<1	<0.5	0.5
Reference Material (% recovery)		103	N/A	101	89	104	101~	109	112	102	103
CRM (certified value)											

EPA Dumping at Sea Permit Application - Material Analysis Reporting Form (Version 1.0)
Sheet 4. QA

Reference Type	Li mg kg ⁻¹	Al mg kg ⁻¹	DBT mg kg ⁻¹	TBT mg kg ⁻¹	Σ TBT + DBT mg kg ⁻¹	PCB 028 mg kg ⁻¹	PCB 052 mg kg ⁻¹	PCB 101 mg kg ⁻¹	PCB 138 mg kg ⁻¹	PCB 153 mg kg ⁻¹	PCB 180 mg kg ⁻¹	PCB 118 mg kg ⁻¹
CRM (result)	68.2	80500	0.486	0.295		2.73	5.51	4.36	4.34	5.19	2.73	3.72
CRM (certified value)	78.2	8.41%	0.77	0.48		4.52	5.24	5.11	3.6	5.47	3.24	4.23
Blank	<0.5	<10	<1	<1		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Reference Material (% recovery)	120	103	63	61		60	105	85	121	95	84	88
CRM (certified value)												

EPA Dumping at Sea Permit Application - Material Analysis Reporting Form (Version 1.0)
 Sheet 4. QA

Reference Type	PCB Σ7 PCB mg kg ⁻¹	PAH Acenaphthene ug kg ⁻¹	PAH Acenaphthylene ug kg ⁻¹	PAH Anthracene ug kg ⁻¹	PAH Benzo (a) anthracene ug kg ⁻¹	PAH Benzo (a) pyrene ug kg ⁻¹	PAH Benzo (b) fluoranthene ug kg ⁻¹	PAH Benzo (ghi) perylene ug kg ⁻¹	PAH Benzo (k) fluoranthene ug kg ⁻¹
CRM (result)		32.3	56.7	127	236	230	407	222	175
CRM (certified value)		38.4	53.3	184	335	358	453	307	453
Blank		<1	<1	<1	<1	<1	<1	<1	<1
Reference Material (% recovery)		84	106	69	71	64	90	72	78
CRM (certified value)									

EPA Dumping at Sea Permit Application - Material Analysis Reporting Form (Version 1.0)
Sheet 4. QA

Reference Type	PAH Chrysene ug kg ⁻¹	PAH Dibenz (a,h) anthracene ug kg ⁻¹	PAH Flourene ug kg ⁻¹	PAH Fluoranthene ug kg ⁻¹	PAH Indeno (1,2,3-cd) pyrene ug kg ⁻¹	PAH Naphthalene ug kg ⁻¹	PAH Phenanthrene ug kg ⁻¹	PAH Pyrene ug kg ⁻¹	PAH Σ 16 ug kg ⁻¹
CRM (result)	179	56.6	49.2	538	259	533	330	423	
CRM (certified value)	291	53	85	651	341	848	406	581	
Blank	<1	<1	<1	<1	<1	<1	<1	<1	
Reference Material (% recovery)	45	107	58	83	76	63	81	73	
CRM (certified value)									

EPA Dumping at Sea Permit Application - Material Analysis Reporting Form (Version 1.0)
 Sheet 4. QA

Reference Type	γ -HCH (Lindane) %	HCB %	Notes / comments:
CRM (result)		8.23	
CRM (certified value)		5.83	
Blank	<0.1	<0.1	
Reference Material (% recovery)	113~	141	
CRM (certified value)			