MONA OFFSHORE WIND PROJECT

Annex 3.9 to the Applicant's response to Relevant Representation at the Procedural Deadline

NRW Sediment sample analysis proforma in response to NRW RR-11.170

Sediment sample results 2022(B)

Deadline: Procedural Deadline

Application Reference: EN01037

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June 2024

F01

Image of an offshore wind farm

www.morganandmona.com/en

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
F01	Examination – Procedural Deadline	RPS	Mona Offshore Wind Ltd	Mona Offshore Wind Ltd	June 2024

Prepared by:

RPS

Prepared for:

Mona Offshore Wind Ltd.

Applicant Information

Instructions:

1. All applicants and laboratories should refer to the most recent guidance on sediment analysis in support of marine licence applications on the Marine Licensing pages of the NRW website
2. Full information must be provided under each relevant sheet of the workbook. Grey highlighted cells indicate where information can be entered.
3. Where information cannot be provided, the applicant should consult with NRW PS prior to submission.
4. Worksheets are protected to prevent accidental amendments to calculated values. If amendments are required please consult with NRW PS.
5. Sample IDs used through the data output worksheets should correspond to Sample IDs provided on this worksheet.

Marine licence applicant information:

Applicant:	Mona Offshore Wind Project Ltd
NRW Sample plan reference number:	
Application title:	Mona Offshore Wind Project
Date sampled:	01/04/2022 to 14/08/2022
Sampling location:	South Irish Sea

Dredge area tonnages:

Dredge Area	Dredging tonnages	% total dredged material	Total dredged material
Area i			0
Area ii			
Area iii			
Area iv			
Area v			
Area vi			

NRW PS use only

Sample numbers and locations

Sample ID	Excluded sample (NRW PS use)	Sample location (decimal degrees, WGS84)		Location name (as per sampling plan)	Sampling depth (m)	Dredge area
		Position latitude	Position longitude			
OCC60		-3.934380	53.469806		33	
OCC61		-3.930340	53.449693		35	
OCC62		-3.922533	53.432701		30	
OCC63		-3.902998	53.418665		26	
OCC64		-3.883491	53.404563		21	
OCC65		-3.864699	53.391020		18	
OCC133		-3.612608	53.293268		7	
OCC134		-3.623545	53.304583		9	
OCC135		-3.629203	53.309704		8	
OCC136		-3.644497	53.312705		8	
OCC137		-3.657700	53.319195		6	
OCC138		-3.671925	53.326406		10	
OCC139		-3.683568	53.327814		10	
OCC140		-3.696704	53.332242		11	
OCC141		-3.710096	53.336613		12	
OCC142		-3.726696	53.342203		14	
OCC143		-3.736530	53.345432		16	
OCC144		-3.749146	53.349606		16	
OCC145		-3.760699	53.355564		17	
OCC146		-3.781945	53.360515		17	
OCC147		-3.801148	53.366842		17	
OCC148		-3.822737	53.371936		17	
OCC149		-3.843551	53.380869		17	
OCC150		-3.861275	53.386766		21	
OCC151		-3.779208	53.367814		15	
OCC152		-3.789928	53.361523		16	
OCC153		-3.811030	53.368069		17	

Physical characteristics data

Instructions:

1. Record the laboratory/contractor responsible for analysis
2. Record the date the samples were analysed.
3. Enter full dataset for each sample in the analysis results table
4. Where copying and pasting entries please use paste values only
5. Where entering multiple Sample IDs please use the pop-up form
   IDs should be separated by a comma

Analysis information:

Laboratory/contractor:	Kenneth Pye Associates Ltd. and Ocean Ecology
Date of analysis:	

Physical characteristics analysis outputs:

Laboratory sample number	Dredge Area	Sample ID(s)	Visual appearance*	Exempt from chemical analysis▫
OCC60		OCC60	Fine to coarse sand with shell fragments	
OCC61		OCC61	Fine to coarse sand with shell fragments	
OCC62		OCC62	Fine to coarse sand with shell fragments	y
OCC63		OCC63	Fine sand and shell fragments	
OCC64		OCC64	Fine sand with shell fragments	y
OCC65		OCC65	Fine sand with black anoxic layer	
OCC133		OCC133	Silty sand	
OCC134		OCC134	Silty sand	y
OCC135		OCC135	Silty sand with shell fragments	
OCC136		OCC136	Silty sand with shell fragments	y
OCC137		OCC137	Silty sand with gravel and shell fragments	
OCC138		OCC138	Silty sand with gravel and shell fragments	y
OCC139		OCC139	Silty sand with shell fragments	
OCC140		OCC140	Silty sand with shell fragments	y
OCC141		OCC141	Silty sand with gravel and cobbles, some clay	
OCC142		OCC142	Silty sand with gravel and shell fragments	y
OCC143		OCC143	Silty sand with gravel	
OCC144		OCC144	Silty sand with gravel and pebbles	y
OCC145		OCC145	Silty sand with gravel	
OCC146		OCC146	Silty sand with gravel	y
OCC147		OCC147	Sand with gravel and shell fragments	
OCC148		OCC148	Silty sand with gravel and cobbles, some clay	y
OCC149		OCC149	Silty sand with gravel and cobbles, some clay	
OCC150		OCC150	Silty sand	y
OCC151		OCC151	Silty sand with gravel	
OCC152		OCC152	Silty sand with gravel	y
OCC153		OCC153	Sand with gravel, cobbles and shell fragments	y

* **Visual appearance**: Incude a description of what the material looks like and what it contains, e.g. sandy material containing brick fragments, or black silt, or foreign man made matter caught in the sample.

▫ **Exempt from chemical analysis:** enter 'y' where sediment samples contain glacial material or are too coarse and thus exempt from chemical analysis.

Total Solids (% total sediments)	Organic matter (total organic carbon)	-5.5	-5.0	-4.5	-4.0	-3.5	-3.0	-2.5	-2.0	-1.5	-1.0
		45mm	31.5mm	22.4mm	16mm	11.2mm	8mm	5.6mm	4mm	2.8mm	2mm
	0.3400	0.00	0.00	0.00	0.00	1.10	2.20	3.70	4.80	5.60	4.50
	0.6000	0.00	0.00	0.00	0.00	0.60	1.50	2.10	2.40	2.70	2.60
	NC	0.00	0.00	0.00	0.00	0.00	0.10	0.20	0.30	0.40	0.90
	0.1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.20	0.50
	NC	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.10	0.00
	0.2600	0.00	0.00	0.00	0.00	0.50	0.40	0.70	0.70	1.60	2.10
	0.2300	0.00	0.00	0.00	0.00	0.00	1.20	0.20	1.20	0.80	1.10
	NC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NC	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.10
	0.1200	0.00	0.00	0.00	0.00	0.30	0.00	0.80	0.50	0.70	1.00
	NC	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00
	0.1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
	NC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.1600	0.00	0.00	0.00	0.00	3.00	1.90	0.50	5.00	10.00	14.50
	NC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.20	1.10
	0.1500	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.90	3.50	5.50
	NC	0.00	26.70	0.00	10.90	3.50	4.90	3.60	2.90	2.30	1.70
	0.1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.10
	NC	0.00	0.00	0.00	0.60	0.00	4.70	4.40	4.00	2.10	1.20
	0.1300	0.00	0.00	0.00	4.90	1.40	0.90	1.30	1.60	1.40	1.20
	NC	59.80	0.00	10.50	7.80	3.70	3.50	1.80	1.70	1.20	0.80
	0.0900	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10	0.50	1.30
	NC	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.20	0.40
	0.1400	0.00	0.00	0.00	0.00	1.20	3.80	2.20	1.70	2.10	1.40
	NC	0.00	0.00	0.00	0.00	4.40	9.00	6.80	5.10	4.90	3.10
	NC	0.00	0.00	0.00	13.30	5.60	5.00	2.40	4.20	2.10	1.60

Particle size distribution (% at 0.5 phi inter

-0.5	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
1.4mm	1mm	707µm	500µm	353.6µm	250µm	176.8µm	125µm	88.39µm	63µm	44.2µm	31.3µm
4.60	4.00	6.80	10.20	15.50	16.80	7.60	1.50	0.40	0.00	0.50	0.70
3.40	4.10	15.70	22.90	25.00	12.30	3.00	1.40	0.20	0.00	0.00	0.00
1.60	3.00	19.10	29.20	27.40	14.20	3.10	0.40	0.10	0.00	0.00	0.00
0.80	1.30	4.20	8.60	27.90	37.10	14.30	0.90	0.50	0.20	0.30	0.30
0.10	0.00	0.00	4.90	30.30	44.20	19.30	0.90	0.00	0.00	0.00	0.00
1.70	1.10	0.40	4.00	16.30	34.50	14.70	0.40	0.00	0.00	0.20	1.40
0.90	0.70	1.00	1.70	3.70	11.80	26.40	25.10	12.70	4.80	1.80	0.90
0.00	0.00	0.00	1.70	7.90	29.70	28.40	7.70	2.10	0.90	0.90	1.00
0.00	0.10	0.50	1.80	7.70	34.70	39.40	9.70	1.10	0.50	0.20	0.30
0.30	0.40	1.30	2.60	7.20	28.40	38.60	15.70	2.40	0.60	0.20	0.20
1.00	1.10	3.10	3.50	12.50	35.50	30.10	6.70	1.00	0.30	0.10	0.20
0.10	0.10	0.00	0.70	9.50	36.10	36.60	10.40	1.80	0.60	0.30	0.30
0.90	2.00	11.40	19.80	32.40	24.30	5.70	1.00	0.50	0.10	0.10	0.10
0.10	0.20	1.90	7.20	31.90	42.30	14.80	1.00	0.60	0.00	0.00	0.00
15.70	10.90	10.70	6.30	6.50	7.60	3.60	0.90	0.30	0.20	0.10	0.20
1.30	1.20	5.40	7.30	23.10	36.90	17.10	1.90	0.60	0.20	0.20	0.30
7.40	6.30	15.00	18.70	21.50	13.20	4.30	1.60	0.40	0.20	0.10	0.10
1.00	0.40	0.50	0.60	2.50	10.50	12.20	4.60	1.30	0.80	0.50	0.50
0.20	0.10	1.40	2.90	27.50	46.10	19.70	1.20	0.60	0.00	0.00	0.00
0.90	0.50	2.50	4.80	17.10	32.00	18.90	2.50	0.50	0.20	0.10	0.20
1.20	1.10	3.40	6.90	25.60	35.00	13.80	0.40	0.00	0.00	0.00	0.00
0.50	0.30	0.50	0.60	1.80	3.20	1.60	0.20	1.00	0.00	0.00	0.00
1.60	1.30	2.90	5.70	26.80	41.20	18.00	0.60	0.00	0.00	0.00	0.00
0.50	0.30	1.40	4.20	28.50	44.10	19.40	0.90	0.00	0.00	0.00	0.00
1.40	1.60	4.00	6.20	20.90	34.10	17.80	1.50	0.20	0.00	0.00	0.00
2.10	1.30	3.10	4.50	12.10	23.60	14.00	2.00	0.50	0.20	0.20	0.20
1.20	0.90	1.80	4.10	14.50	26.70	11.60	1.10	0.70	0.30	0.20	0.20

vals)

5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0
22.1µm	15.6µm	11µm	7.8µm	5.5µm	3.9µm	2.75µm	1.95µm	1.38µm	0.98µm	0.69µm	0.49µm
0.60	0.60	0.90	1.20	1.40	1.20	0.90	0.60	0.40	0.30	1.10	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.20	0.20	0.30	0.40	0.30	0.20	0.10	0.10	0.10	0.10	0.50	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1.00	1.70	1.40	2.50	2.70	2.80	1.60	1.00	1.30	1.00	2.30	
0.50	0.40	0.40	0.40	0.40	0.30	0.30	0.20	0.20	0.20	0.70	
1.20	1.20	2.20	2.20	2.70	2.80	1.90	1.20	1.00	0.70	2.40	
0.20	0.30	0.40	0.50	0.50	0.40	0.30	0.20	0.20	0.20	0.70	
0.20	0.20	0.20	0.20	0.20	0.10	0.10	0.10	0.10	0.10	0.60	
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.50	
0.30	0.30	0.40	0.40	0.40	0.30	0.20	0.20	0.20	0.20	0.70	
0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.40	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.20	0.20	0.30	0.30	0.20	0.20	0.10	0.10	0.10	0.10	0.20	
0.30	0.30	0.40	0.40	0.30	0.30	0.20	0.10	0.10	0.10	0.50	
0.10	0.10	0.20	0.20	0.10	0.10	0.10	0.10	0.00	0.10	0.30	
0.50	0.50	0.80	0.90	1.00	1.00	0.80	0.60	0.40	0.30	1.10	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.20	0.20	0.30	0.40	0.40	0.30	0.20	0.10	0.10	0.10	0.50	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.10	0.10	0.10	0.10	0.00	0.00	0.00	0.00	0.10	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
0.20	0.30	0.40	0.40	0.40	0.40	0.30	0.20	0.10	0.10	0.40	
0.20	0.20	0.30	0.30	0.30	0.20	0.20	0.10	0.10	0.10	0.30	

11.5	12.0	12.5	13.0	13.5	14.0	14.5	>14.5
0.34µm	0.24µm	0.17µm	0.12µm	0.09µm	0.06µm	0.04µm	<0.04µm

Trace metal data

Instructions:

1. Record the laboratory/contractor responsible for trace metal analysis
2. Record the date the samples were analysed.
3. Enter full dataset for each sample in the analysis results table
4. Trace metal analysis results should be reported in mg/kg (ppm) dry weight
5. Enter methdological limit of detection for each trace metal prior to inputting raw data
6. Where analysis outputs are less than the limits of detection please enter text "<LOD"
7. Where copying and pasting entries please use paste values only
8. Where entering multiple Sample IDs please use the pop-up form
   IDs should be separated by a comma

Analysis information:

Laboratory/contractor:	Kenneth Pye Associates Ltd. and Ocean Ecology
Date of analysis:	

Determinand analysis outputs:

Laboratory sample number	Dredge Area	Sample ID(s)	Metals as mg/kg dry weight							
			Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Copper (Cu)	Mercury (Hg)	Nickel (Ni)	Lead (Pb)	Zinc (Zn)
OCC60		OCC60	14.7	0.1	10.6	7.1	0.05	9.5	11.4	41.7
OCC61		OCC61	17.9	0.19	5.6	6.3	0.04	6.8	14.2	33.4
OCC63		OCC63	10.8	0.05	5.4	5.8	0.04	5	5.4	33.5
OCC65		OCC65	16.9	0.13	10.6	7	0.03	9.7	5.7	34
OCC133		OCC133	4.6	0.09	8.4	6.8	0.01	7.5	6.8	31.2
OCC135		OCC135	7.4	0.04	6.8	5.3	<LOD	6.3	6.4	30.4
OCC137		OCC137	9.3	0.06	8.3	5.6	<LOD	6.6	6.1	30.4
OCC139		OCC139	17.1	0.05	6.6	5.8	<LOD	6.6	10.5	41.1
OCC141		OCC141	38.9	0.12	17.3	8.8	<LOD	18.4	12.5	58.7
OCC143		OCC143	21.3	0.07	10.5	7.3	0.02	11.4	10.4	45
OCC145		OCC145	10.3	<LOD	5.3	5.6	<LOD	5.3	8.6	28.5
OCC147		OCC147	13.8	0.05	10.2	6.3	<LOD	10.3	6.8	29.6
OCC149		OCC149	14.7	<LOD	6.6	6.5	0.01	6.4	21.7	23.3
OCC151		OCC151	14	0.08	10.6	7.7	0.03	10.9	6.7	33.4
Limits of detection (mg/kg dry weight):			1	0.04	0.5	2	0.01	0.5	2	3

Organotin data

Instructions:

1. Record the laboratory/contractor responsible for organotin analysis
2. Record the date the samples were analysed.
3. Enter full dataset for each sample in the analysis results table
4. Organotin analysis results should be reported in mg/kg (ppm) dry weight
5. Enter methdological limit of detection for each organotin prior to inputting raw data
6. Where analysis outputs are less than the limits of detection please enter text "<LOD"
7. Where copying and pasting entries please use paste values only
8. Where entering multiple Sample IDs please use the pop-up form
   IDs should be separated by a comma

Analysis information:

Laboratory/contractor:	Kenneth Pye Associates Ltd. and Ocean Ecology
Date of analysis:	

Determinand analysis outputs:

Laboratory sample number	Dredge Area	Sample ID(s)	Organotins as mg/kg dry weight	
			Dibutyltine (DBT)	Tributyltin (TBT)
OCC60		OCC60	<LOD	<LOD
OCC61		OCC61	<LOD	<LOD
OCC63		OCC63	<LOD	<LOD
OCC65		OCC65	<LOD	<LOD
OCC133		OCC133	<LOD	<LOD
OCC135		OCC135	<LOD	<LOD
OCC137		OCC137	<LOD	<LOD
OCC139		OCC139	<LOD	<LOD
OCC141		OCC141	<LOD	<LOD
OCC143		OCC143	<LOD	<LOD
OCC145		OCC145	<LOD	<LOD
OCC147		OCC147	<LOD	<LOD
OCC149		OCC149	<LOD	<LOD
OCC151		OCC151	<LOD	<LOD
Limits of detection (mg/kg dry weight):			0.001	0.001

Polyaromatic hydrocarbon data

Instructions:

1. Record the laboratory/contractor responsible for PAH analysis
2. Record the date the samples were analysed.
3. Enter full dataset for each sample in the analysis results table
4. Analysis results for individual PAHs should be reported in µg/kg (ppb) dry weight.
   THC should be reported as mg/kg (ppm)
5. Enter methdological limit of detection for each PAH prior to inputting raw data
6. Where analysis outputs are less than the limits of detection please enter text "<LOD"
7. Where copying and pasting entries please use paste values only
8. Where entering multiple Sample IDs please use the pop-up form
   IDs should be separated by a comma

Analysis information:

Laboratory/contractor:	Kenneth Pye Associates Ltd. and Ocean Ecology
Date of analysis:	

Determinand analysis outputs:

Laboratory sample number	Dredge Area	Sample ID(s)	Acenapthene	Acenapthylene
OCC60		OCC60	<LOD	<LOD
OCC61		OCC61	<LOD	<LOD
OCC63		OCC63	<LOD	<LOD
OCC65		OCC65	<LOD	<LOD
OCC133		OCC133	<LOD	<LOD
OCC135		OCC135	<LOD	<LOD
OCC137		OCC137	<LOD	<LOD
OCC139		OCC139	<LOD	<LOD
OCC141		OCC141	<LOD	<LOD
OCC143		OCC143	<LOD	<LOD
OCC145		OCC145	<LOD	<LOD
OCC147		OCC147	<LOD	<LOD
OCC149		OCC149	<LOD	<LOD
OCC151		OCC151	<LOD	<LOD
Limits of detection (µg/kg dry weight):			1	1

Anthracene	Benz[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[e]pyrene	Benzo[k]fluoranthene	C1-Napthalenes
<LOD	2.06	2.68	5.18	4.47	3.92	2.26	5.71
<LOD	1.16	1.27	2.05	2.81	2.41	1.14	3.27
<LOD	<LOD	1.03	1.56	1.59	1.22	<LOD	2.13
<LOD	1.32	1.37	3.67	4.66	3.13	1.37	12.4
1.05	3.3	3.6	3.63	2.88	2.64	3.56	2.42
<LOD	<LOD	1.31	1.88	1.68	1.81	1.74	2.24
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	1.21	1.03	1.02	<LOD	1.34
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
1	1	1	1	1	1	1	1

PAHs as dry weight (µg/kg dry weight)							
C1-Phenanthrenes	C2-Napthalenes	C3-Napthalenes	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[123-c,d]pyrene
5.26	5.74	4.09	2.96	<LOD	3.28	<LOD	4.17
3.85	3.55	2.96	1.77	<LOD	1.92	<LOD	1.52
2.44	2.98	2.7	<LOD	<LOD	1.6	<LOD	1.24
12.7	17	13.4	3.21	<LOD	2.23	1.34	1.23
6.08	2.86	3.04	4.37	<LOD	7.68	<LOD	2.71
1.99	2.74	1.76	1.57	<LOD	1.84	<LOD	1.77
<LOD	1.88	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
1.77	1.44	1.56	1.12	<LOD	1.44	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
1.07	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
1	1	1	1	1	1	1	1

Napthalene	Perylene	Phenanthrene	Pyrene	**Total hydrocarbon content (mg/kg)**
2.25	1	3.87	2.92	61.82
1.43	<LOD	2.65	1.78	35.54
<LOD	<LOD	2	1.41	21.9
2.06	4.94	8.13	2.7	96.86
<LOD	<LOD	6.47	7	63.29
<LOD	<LOD	1.68	1.74	25.75
<LOD	<LOD	<LOD	<LOD	1.88
<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	1.33	1.59	14.85
<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	1.07
<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD
1	1	1	1	1

Polychlorinated biphenyl data

Instructions:

1. Record the laboratory/contractor responsible for PCB analysis
2. Record the date the samples were analysed.
3. Enter full dataset for each sample in the analysis results table
4. Analysis results should be reported in mg/kg (ppm) dry weight.
5. Enter methdological limit of detection for each PCB prior to inputting raw data
6. Where analysis outputs are less than the limits of detection please enter text "<LOD"
7. ICES 7 PCBs are highlighted in bold
8. Where copying and pasting entries please use paste values only
9. Where entering multiple Sample IDs please use the pop-up form
   IDs should be separated by a comma

Analysis information:

Laboratory/contractor:	Kenneth Pye Associates Ltd. and Ocean Ecology
Date of analysis:	

Determinand analysis outputs:

Laboratory sample number	Dredge Area	Sample ID(s)	2,2',4,5,5'-Pentachlorobiphenyl CB101	2,3,3',4,4'-Pentachlorobiphenyl CB105
OCC60		OCC60	<LOD	<LOD
OCC61		OCC61	<LOD	<LOD
OCC63		OCC63	<LOD	<LOD
OCC65		OCC65	<LOD	<LOD
OCC133		OCC133	<LOD	<LOD
OCC135		OCC135	<LOD	<LOD
OCC137		OCC137	<LOD	<LOD
OCC139		OCC139	<LOD	<LOD
OCC141		OCC141	<LOD	<LOD
OCC143		OCC143	0.0001	0.00033
OCC145		OCC145	<LOD	<LOD
OCC147		OCC147	<LOD	<LOD
OCC149		OCC149	<LOD	<LOD
OCC151		OCC151	<LOD	<LOD
Limits of detection (mg/kg dry weight):			0.00008	0.00008

2,3,3',4',6-Pentachlorobiphenyl CB110	2,3',4,4',5-Pentachlorobiphenyl CB118	2,2',3,3',4,4'-Hexachlorobiphenyl CB128	2,2',3,4,4',5'-Hexachlorobiphenyl CB138	2,2',3,4,5,5'-Hexachlorobiphenyl CB141	2,2',3,4',5',6-Hexachlorobiphenyl CB149	2,2',3,5,5',6-Hexachlorobiphenyl CB151	2,2',4,4',5,5'-Hexachlorobiphenyl CB153
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
0.00024	0.00032	0.00025	0.0002	0.00023	0.00023	0.00019	0.00026
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008

PCBs as mg/kg dry weight							
2,3,3',4,4',5-Hexachlorobiphenyl CB156	2,3,3',4,4',6-Hexachlorobiphenyl CB158	2,2',3,3',4,4',5-Heptachlorobiphenyl CB170	2,2',5- Trichlorobiphenyl CB18	2,2',3,4,4',5,5'-Heptachlorobiphenyl CB180	2,2',3,4,4',5',6-Heptachlorobiphenyl CB183	2,2',3,4',5,5',6-Heptachlorobiphenyl CB187	2,2',3,3',4,4',5,5'-Octachlorobiphenyl CB194
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
0.00037	0.00029	0.00025	<LOD	0.00022	0.00023	0.00025	0.00028
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008

2,4,4'-Trichlorobiphenyl CB28	2,4',5-Trichlorobiphenyl CB31	2,2',3,5'-Tetrachlorobiphenyl CB44	2,2',4,4'-Tetrachlorobiphenyl CB47	2,2',4,5'-Tetrachlorobiphenyl CB49	2,2',5,5'-Tetrachlorobiphenyl CB52	2,3',4,4'-Tetrachlorobiphenyl CB66
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	0.00011
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
0.00008	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008

Organochlorine data

Instructions:

1. Record the laboratory/contractor responsible for analysis
2. Record the date the samples were analysed.
3. Enter full dataset for each sample in the analysis results table
4. Analysis results should be reported in mg/kg (ppm) dry weight.
5. Enter methdological limit of detection for each Organochlorine prior to inputting raw data
6. Where analysis outputs are less than the limits of detection please enter text "<LOD"
7. Where copying and pasting entries please use paste values only
8. Where entering multiple Sample IDs please use the pop-up form
   IDs should be separated by a comma

Analysis information:

Laboratory/contractor:	Kenneth Pye Associates Ltd. and Ocean Ecology
Date of analysis:	

Determinand analysis outputs:

Laboratory sample number	Dredge Area	Sample ID(s)	Organochlorine pesticides as mg/kg dry weight							
			alpha-hexachlorocyclohexane (AHCH)	beta-hexachlorocyclohexane (BHCH)	gamma-hexachlorocyclohexane (GHCH)	Dieldrin	Hexachlorobenzene (HCB)	1,1-Dichloro-2,2-bis(p-chlorophenyl) ethylene (PPDDE)	Dichlorodiphenyltrichloro ethane (PPDDT)	1,1-dichloro-2,2-bis(p-chlorophenyl)ethane (PPTDE)
OCC60		OCC60	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC61		OCC61	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC63		OCC63	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC65		OCC65	<LOD	<LOD	0.0002	<LOD	<LOD	<LOD	<LOD	<LOD
OCC133		OCC133	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC135		OCC135	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC137		OCC137	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC139		OCC139	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC141		OCC141	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC143		OCC143	<LOD	<LOD	<LOD	0.0007	<LOD	0.0002	0.0004	0.0009
OCC145		OCC145	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC147		OCC147	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC149		OCC149	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
OCC151		OCC151	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD	<LOD
Limits of detection (mg/kg dry weight):			0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Brominated flame retardant data

Instructions:

1. Record the laboratory/contractor responsible for analysis
2. Record the date the samples were analysed.
3. Enter full dataset for each sample in the analysis results table
4. Analysis results should be reported in mg/kg (ppm) dry weight.
5. Enter methdological limit of detection for each BDE prior to inputting raw data
6. Where analysis outputs are less than the limits of detection please enter text "<LOD"
7. Where copying and pasting entries please use paste values only
8. Where entering multiple Sample IDs please use the pop-up form
   IDs should be separated by a comma

Analysis information:

Laboratory/contractor:	N/A
Date of analysis:	N/A

Determinand analysis outputs:

Laboratory sample number	Dredge Area	Sample ID(s)	Brominated flame retardants as mg/kg dry weight											
			2,2′,4,4′,6-penta-bromodiphenyl ether (BDE100)	Hexabromodiphenyl ether (BDE138)	2,2′,4,4′,5,5′-hexa-bromodiphenyl ether (BDE153)	2,2′,4,4′,5,6′-hexa-bromodiphenyl ether (BDE154)	2,2′,4-tri-bromodiphenylether (BDE17)	2,2′,3,4,4′,5′,6-heptabromodiphenyl ether (BDE183)	2,2′,3,3′,4,4′,5,5′,6,6′-decabrominated diphenyl ether (BDE 209)	2,4,4'-tribromodiphenyl ether (BDE28)	2,2′,4,4′-Tetrabromodiphenyl ether (BDE47)	2,3′,4,4′-Tetrabromodiphenyl ether (BDE66)	2,2′,3,4,4′-Pentabromodiphenyl ether (BDE85)	2,2′,4,4′,5-pentabromodiphenyl ether (BDE99)
Limits of detection (mg/kg dry weight):														