

Pre-deposit Sampling Results Form

Version 3 - January 2024

This form should be used to submit the results from your pre-deposit sampling plan.
Full information must be provided in all relevant sheets of this workbook. The blue cells in each worksheet indicate where information can be entered.
Where information cannot be provided, please contact the Marine Directorate - Licensing Operations Team (MD-LOT) using the contact details below.

Once you have completed this form, send it (including any reference number for the dredging and sea deposit marine licence application in the subject header of your email) to the following email address:
md.marinelicensing@gov.scot

If you have any questions in relation to this form contact MD-LOT:

Marine Directorate - Licensing Operations Team
Marine Laboratory
375 Victoria Road
Aberdeen, AB11 9DB

01224 295579
md.marinelicensing@gov.scot

Applicant:	Forth Ports Ltd
Description of dredging:	Maintenance
Total amount to be dredged (wet tonnes)	520,000

Explanatory Notes:
An example of a 'Dredge area' is: 'Dock A, Harbour X'
Provide description of the dredge area and the latitude and longitude co-ordinates (WGS84) for each sample location. Co-ordinates taken from GPS equipment should be set to WGS84.
Note for sample depth that the seabed is 0 metres.
Gravel is defined as >2mm, **Sand** is defined as >63µm<2mm, **Silt** is defined as <63µm).

Sample ID	Dredge area	Latitude						Longitude							Type of sample	Sample depth (m)	Total solids (%)	Gravel (%)	Sand (%)	Silt (%)	TOC (%)	Specific gravity	Asbestos						
MAR02945.00	R26-01	5	6	-	0	1	4	1	5	N	0	0	3	-	2	6	6	4	6	W	Grab	0	37.4	0	17.38	82.62	4.17	2.57	No
MAR02945.00	R26-02	5	6	-	0	1	4	0	3	N	0	0	3	-	2	6	6	0	6	W	Grab	0	31.9	0	12.69	87.31	3.83	2.57	No
MAR02945.00	R26-03	5	6	-	0	1	3	6	3	N	0	0	3	-	2	6	4	0	5	W	Grab	0	31.4	0	14.61	85.39	4.15	2.58	No
MAR02945.00	R26-04	5	6	-	0	1	2	7	3	N	0	0	3	-	2	6	4	8	6	W	Grab	0	34	0	20.52	79.48	4.02	2.54	No
MAR02945.00	R26-05	5	6	-	0	1	1	4	9	N	0	0	3	-	2	6	5	5	6	W	Grab	0	32.7	0	20.31	79.69	4.27	2.57	No
MAR02945.00	R26-06	5	6	-	0	1	2	6	8	N	0	0	3	-	2	6	1	4	1	W	Grab	0	38.4	0	11.41	88.59	4.19	2.56	No
MAR02945.00	R26-07	5	6	-	0	1	1	3	6	N	0	0	3	-	2	6	2	9	2	W	Grab	0	40	0.52	25.6	73.89	4.19	2.55	No
MAR02945.00	R26-08	5	6	-	0	1	1	6	3	N	0	0	3	-	2	6	0	0	1	W	Grab	0	39.7	0.26	28.4	71.34	4.3	2.55	No
MAR02945.00	R26-09	5	6	-	0	1	0	3	3	N	0	0	3	-	2	6	0	5	7	W	Grab	0	49	0	32.66	67.34	3.04	2.56	No
MAR02945.01	R26-10	5	6	-	0	0	9	9	3	N	0	0	3	-	2	5	6	9	8	W	Grab	0	39.8	0.51	32.68	66.81	3.89	2.56	No
MAR02945.01	R26-11	5	6	-	0	0	8	7	4	N	0	0	3	-	2	5	4	2	5	W	Grab	0	36.6	0.3	36.14	63.66	3.38	2.58	No
MAR02945.01	R26-12	5	6	-	0	0	7	7	4	N	0	0	3	-	2	5	0	5	5	W	Grab	0	41.8	0.07	30.49	69.44	3.48	2.58	No
MAR02945.01	R26-13	5	6	-	0	0	6	4	6	N	0	0	3	-	2	4	9	6	8	W	Grab	0	51.4	1.1	27.69	71.22	3.17	2.58	No
				-	0	0				N				-						W									
				-	0	0				N				-						W									
				-	0	0				N				-						W									
				-	0	0				N				-						W									
				-	0	0				N				-						W									
				-	0	0				N				-						W									
				-	0	0				N				-						W									
				-	0	0				N				-						W									
				-	0	0				N				-						W									
				-	0	0				N				-						W									

Explanatory Notes:
Results above Action Level 1 will be highlighted in blue and above Action Level 2 in red.

[illegible]

Explanatory Notes:
Results above Action Level 1 will be highlighted in blue

[illegible]

PR Details

Total amount to be dredged (wet tonnes) 520,000

Explanatory Notes:

The values entered for each determinand should be an average wet weight concentration from all the samples representing the material to be disposed to sea. They should be entered in the units stated in the Unit of measurement column in the table below.
Results above Action Level 1 will be highlighted in blue and above Action Level 2 in red.

Average for the total dredge area:

Sample ID	Unit of measurement	
Total Solids	%	38.8
Gravel	%	0.21
Sand	%	23.89
Silt	%	75.9
Arsenic (As)	mg/kg	6.9
Cadmium (Cd)		0.07
Chromium (Cr)		23.4
Copper (Cu)		10.9
Mercury (Hg)		0.25
Nickel (Ni)		13
Lead (Pb)		22.9
Zinc (Zn)		50.2
Dibutyltin (DBT)		<0.005
Tributyltin (TBT)		<0.005
Acenaphth	µg/kg	23.3
Acenaphthylene		20.8
Anthracen		55.7
BAA		103
BAP		126
BBF		140
BEP		109
Benzghip		126
BKF		101
C1N		249
C1PHEN		207
C2N		222
C3N		234
Chrysene		110
Debenzah		23.4
Flurant		186
Fluorene		36.4
Indypr		118
naph		79
perylene		78
phenant		137
pyrene		215
THC		131154
PCB28		0.4
PCB52		0.23
PCB101		0.35
PCB118		0.42
PCB138		0.38
PCB153		0.53
PCB18		0.12
PCB105		0.15
PCB110		0.36
PCB128		0.08
PCB141		<0.08
PCB149		0.42
PCB151		0.09
PCB156		<0.08
PCB158		0.08
PCB170		0.15
PCB180		0.35
PCB183		0.09
PCB187		0.23
PCB194		0.1
PCB31		0.31
PCB44		0.18
PCB47		0.09
PCB49		0.2
PCB66		0.39
ICES7		2.65
AHCH		<0.1
BHCH		<0.1
GHCH		<0.1
DIELDRIN		0.26
HCb		1.65
DDE		0.42
DDT		0.11
TDE		1.12
BDE100		<0.05
BDE138		<0.05
BDE153		<0.05
BDE154		<0.05
BDE17		<0.05
BDE183		<0.05
BDE209		21.67
BDE28		<0.05
BDE47		0.11
BDE66		<0.05
BDE85		<0.05
BDE99		<0.05

Comments:

PCB 141 and PCB 156 should not be flagged as red (above Action Level 2) as the results are 'less than 0.08'. Errors in the way the spreadsheet codes the results remain.

Laboratory Details

Explanatory Notes:

Please complete a separate worksheet for each laboratory (e.g. complete 'Laboratory_1' worksheet for 1 laboratory and complete 'Laboratory_2' worksheet for a second laboratory). If there are more than 3 laboratories then please contact MD-L-OT.

Laboratory 1 Details:

Laboratory name:	SOCOTEC
Year:	2026

LabRefMat	Q1	Does the laboratory carrying out the analyses undertake the analysis of blank samples and laboratory reference materials with each batch of samples of waste and other material dumped in the maritime area that is analysed by that laboratory?	Yes
CompAnal	Q2	Does the laboratory carrying out the analyses undertake periodic comparative analysis of laboratory reference materials and certified reference materials?	Yes
QAQC	Q3	Does the laboratory carrying out the analyses undertake the compilation of quality control charts based upon the data resulting from the analyses of the laboratory reference materials and certified reference materials, and the use of those quality control charts to monitor analytical performance in relation to all samples of dumped wastes or other materials?	Yes
InterlabCaleb	Q4	Does the laboratory carrying out the analyses undertake periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises?	Yes
InternatCaleb	Q5	Does the laboratory carrying out the analyses undertake periodic participation in national and, where possible, international laboratory proficiency schemes?	Yes
SpikedSamples	Q6	If the answer to questions 4 or 5 is 'Yes' then does the laboratory analyse samples of substances which are provided by the organisers of the scheme?	Yes
BlindSamples	Q7	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the composition of those samples is not disclosed in advance?	Yes
Ranking	Q8	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the results of the scheme for each participating laboratory are made available to all participating laboratories?	Yes
FracAnal	Q9	Enter the size fraction that is analysed i.e. Whole or less than 63µm etc.	<63um(metals)
GranMeth	Q10	PSA method	Distribution by wet & dry sieving and laser detracton
OCMeth	Q11	Organic Carbon method	Carbonate removal and sulfurous acid/combustion at 1600°C/NDIR,
MetExtrType	Q12	Method of extraction used for metal analysis	Aquaregia
MethOfDetMetals	Q13	Method of detection used for metal analysis	ICP-MS
PAHExtrType	Q14	Method of extraction used for poly aromatic hydrocarbon analysis	Methanol/DCM solvent extraction with silica clean up and copper clean up stages
MethOfDetPAH	Q15	Method of detection used for poly aromatic hydrocarbons analysis	GCMS
OHExtrType	Q16	Method of extraction used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	Ultrasonic acetone/hexane solvent extraction
MethOfDetOH	Q17	Method of detection used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	GCMSMS
OTExtrType	Q18	Method of extraction used for organotin analysis	Derivatisation and solvent extraction
MethOfDetOT	Q19	Method of detection used for organotin analysis	GCMS

		LOD/LOQ	Precision (%)	Recovery (%)
mg/kg	Hg	0.01	4.2	92
	As	0.5	2.7	101
	Cd	0.04	3.6	100
	Cu	0.5	2.9	96
	Pb	0.5	3	93
	Zn	2	2.6	100
	Cr	0.5	3.1	102
	Ni	0.5	3.6	97
	TBT	0.001	12.62	78
	DBT	0.001	12.62	71
	PCB28	0.08	12.56	60
	PCB31	0.08	5.3	58
	PCB44	0.08	5.7	81
	PCB47	0.08	5.7	85
µg/kg	PCB49	0.08	5.2	62
	PCB52	0.08	6.999	85
	PCB66	0.08	10.7	76
	PCB101	0.08	8.43	83
	PCB105	0.08	8.6	88
	PCB110	0.08	5.2	76
	PCB118	0.08	14.61	88
	PCB128	0.08	7.6	49
	PCB136+163	0.08	12.93	76
	PCB141	0.08	7.6	80
	PCB149	0.08	6.7	76
	PCB151	0.08	7.6	73
	PCB153	0.08	7.41	83
	PCB156	0.08	8.4	69
	PCB158	0.08	7.6	90
	PCB170	0.08	6	59
	PCB180	0.08	9.85	73
	PCB183	0.08	6.2	75
	PCB187	0.08	6.6	79
	PCB194	0.08	6.5	58
	DDE	0.1	8.2	60
	DDT	0.1	10.6	58
	DDD	0.1	11	70
	Dieldrin	0.1	10.8	73
	Lindane	0.1	8.5	107
	HCB	0.1	2.8	73
	BDE17	0.05	7.6	110
	BDE28	0.05	2.8	101
	BDE47	0.05	3.4	108
	BDE66	0.05	8.5	115
	BDE85	0.05	14.4	130
	BDE99	0.05	9.3	71
	BDE100	0.05	5.3	100
	BDE138	0.05	10.1	83
	BDE153	0.05	6.5	107
	BDE154	0.05	3.9	105
	BDE183	0.05	11	111
	BDE209	0.1	4.5	56
	ACENAPHTH	1	6.68	31
	ACENAPHY	1	7.74	138
	ANTHRACEN	1	4.95	84
	BAA	1	9.8	82
	BAP	1	9.07	84
	BBF	1	8.44	88
	BENZGHIPI	1	13.46	103
	BEP	1	7.9	97
	BKF	1	8.9	90
	C1N	1	8.27	99
	C1PHEN	1	N/A	107
	C2N	1	N/A	125
	C3N	1	N/A	58
	CHRYSENE	1	7.87	95
	DBENZAH	1	19.23	100

	FLUORENE	1	5.25	89
	FLUORANT	1	4.36	90
	INDPYR	1	17.1	95
	NAPTH	1	3.02	93
	PERYLENE	1	N/A	92
	PHENANT	1	5.41	102
	PYRENE	1	4.29	92
	THC	100	N/A	84

Laboratory Details

Explanatory Notes:

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Laboratory 2 Details:

Laboratory name:	
Year:	

LabRefMat	Q1	Does the laboratory carrying out the analyses undertake the analysis of blank samples and laboratory reference materials with each batch of samples of waste and other material dumped in the maritime area that is analysed by that laboratory?	
CompAnal	Q2	Does the laboratory carrying out the analyses undertake periodic comparative analysis of laboratory reference materials and certified reference materials?	
QAQC	Q3	Does the laboratory carrying out the analyses undertake the compilation of quality control charts based upon the data resulting from the analyses of the laboratory reference materials and certified reference materials, and the use of those quality control charts to monitor analytical performance in relation to all samples of dumped wastes or other materials?	
InterlabCaleb	Q4	Does the laboratory carrying out the analyses undertake periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises?	
InternatCaleb	Q5	Does the laboratory carrying out the analyses undertake periodic participation in national and, where possible, international laboratory proficiency schemes?	
SpikedSamples	Q6	If the answer to questions 4 or 5 is 'Yes' then does the laboratory analyse samples of substances which are provided by the organisers of the scheme?	
BlindSamples	Q7	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the composition of those samples is not disclosed in advance?	
Ranking	Q8	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the results of the scheme for each participating laboratory are made available to all participating laboratories?	
FracAnal	Q9	Enter the size fraction that is analysed i.e. Whole or less than 63µm etc.	
GranMeth	Q10	PSA method	
OCMeth	Q11	Organic Carbon method	
MetExtrType	Q12	Method of extraction used for metal analysis	
MethOfDetMetals	Q13	Method of detection used for metal analysis	
PAHExtrType	Q14	Method of extraction used for poly aromatic hydrocarbon analysis	
MethOfDetPAH	Q15	Method of detection used for poly aromatic hydrocarbons analysis	
OHExtrType	Q16	Method of extraction used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	
MethOfDetOH	Q17	Method of detection used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	
OTExtrType	Q18	Method of extraction used for organotin analysis	
MethOfDetOT	Q19	Method of detection used for organotin analysis	

		LOD/LOQ	Precision (%)	Recovery (%)
mg/kg	Hg			
	As			
	Cd			
	Cu			
	Pb			
	Zn			
	Cr			
	Ni			
	TBT			
	DBT			
µg/kg	PCB28			
	PCB31			
	PCB44			
	PCB47			
	PCB49			
	PCB52			
	PCB66			
	PCB101			
	PCB105			
	PCB110			
	PCB118			
	PCB128			
	PCB138+163			
	PCB141			
	PCB149			
	PCB151			
	PCB153			
	PCB156			
	PCB158			
	PCB170			
	PCB180			
	PCB183			
	PCB187			
	PCB194			
	DDE			
	DDT			
	DDD			
	Dieldrin			
	Lindane			
	HCB			
	BDE17			
	BDE28			
	BDE47			
	BDE66			
	BDE85			
	BDE99			
	BDE100			
	BDE138			
	BDE153			
	BDE154			
	BDE183			
	BDE209			
	ACENAPHTH			
	ACENAPHY			
	ANTHRACN			
	BAA			
	BAP			
	BBF			
	BENZGHIP			
	BEP			
	BKF			
	C1N			
	C1PHEN			
	C2N			
	C3N			
	CHRYSENE			
	DBENZAH			

	FLUORENE			
	FLUORANT			
	INDPYR			
	NAPTH			
	PERYLENE			
	PHENANT			
	PYRENE			
	THC			

Laboratory Details

Explanatory Notes:

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Laboratory 3 Details:

Laboratory name:	
Year:	

LabRefMat	Q1	Does the laboratory carrying out the analyses undertake the analysis of blank samples and laboratory reference materials with each batch of samples of waste and other material dumped in the maritime area that is analysed by that laboratory?	
CompAnal	Q2	Does the laboratory carrying out the analyses undertake periodic comparative analysis of laboratory reference materials and certified reference materials?	
QAQC	Q3	Does the laboratory carrying out the analyses undertake the compilation of quality control charts based upon the data resulting from the analyses of the laboratory reference materials and certified reference materials, and the use of those quality control charts to monitor analytical performance in relation to all samples of dumped wastes or other materials?	
InterlabCaleb	Q4	Does the laboratory carrying out the analyses undertake periodic participation in interlaboratory comparison exercises, including, where possible, international comparison exercises?	
InternatCaleb	Q5	Does the laboratory carrying out the analyses undertake periodic participation in national and, where possible, international laboratory proficiency schemes?	
SpikedSamples	Q6	If the answer to questions 4 or 5 is 'Yes' then does the laboratory analyse samples of substances which are provided by the organisers of the scheme?	
BlindSamples	Q7	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the composition of those samples is not disclosed in advance?	
Ranking	Q8	If the answer to questions 4 or 5 is 'Yes' then does the laboratory confirm that the results of the scheme for each participating laboratory are made available to all participating laboratories?	
FracAnal	Q9	Enter the size fraction that is analysed i.e. Whole or less than 63µm etc.	
GranMeth	Q10	PSA method	
OCMeth	Q11	Organic Carbon method	
MetExtrType	Q12	Method of extraction used for metal analysis	
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MethOfDetOH	Q17	Method of detection used for organohalogens inc PCBs, pesticides, flame retardants etc analysis	
OTExtrType	Q18	Method of extraction used for organotin analysis	
MethOfDetOT	Q19	Method of detection used for organotin analysis	

		LOD/LOQ	Precision (%)	Recovery (%)
mg/kg	Hg			
	As			
	Cd			
	Cu			
	Pb			
	Zn			
	Cr			
	Ni			
	TBT			
	DBT			
µg/kg	PCB28			
	PCB31			
	PCB44			
	PCB47			
	PCB49			
	PCB52			
	PCB66			
	PCB101			
	PCB105			
	PCB110			
	PCB118			
	PCB128			
	PCB138+163			
	PCB141			
	PCB149			
	PCB151			
	PCB153			
	PCB156			
	PCB158			
	PCB170			
	PCB180			
	PCB183			
	PCB187			
	PCB194			
	DDE			
	DDT			
	DDD			
	Dieldrin			
	Lindane			
	HCB			
	BDE17			
	BDE28			
	BDE47			
	BDE66			
	BDE85			
	BDE99			
	BDE100			
	BDE138			
	BDE153			
	BDE154			
	BDE183			
	BDE209			
	ACENAPHTH			
	ACENAPHY			
	ANTHRACN			
	BAA			
	BAP			
	BBF			
	BENZGHP			
	BEP			
	BKF			
	C1N			
	C1PHEN			
	C2N			
	C3N			
	CHRYSENE			
	DBENZAH			

	FLUORENE			
	FLUORANT			
	INDPYR			
	NAPTH			
	PERYLENE			
	PHENANT			
	PYRENE			
	THC			

Grab	Yes
Core	No