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Analytical Report

Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Batch description: DPC Gateway Samples 1- 19

Reported on:
09-Dec-2008

Emma McGuiness
Dublin Port Company
Port Centre
Alexandra Road
Dublin 1

Dear Emma

Please find attached the results for the batch of samples described below.

Samples taken on:	20-Oct-2008
Samples Registered on:	23-Oct-2008
Results for Batch Number	20011055

You will be invoiced shortly by our accounts department.

If we can be of further assistance then please do not hesitate to contact us.

Yours sincerely

William Fardon
Customer Services Team Leader
Tel: (0113) 231 2177
nls@environment-agency.gov.uk

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Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation. Details of analytical procedures and performance data are available on request. The date of sample analysis is available on request.

The Environment Agency carries out analytical work to high standards and within the scope of its UKAS accreditation, but has no knowledge of whether the circumstances or the validity of the procedures used to obtain the samples provided to the laboratory were representative of the need for which the information was required.
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Analytical Report

Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861272
Comments: D.P. 1
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	3.030	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.53200000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.03	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.12000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	74.10	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	40.60	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	7.18	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	0.00	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	18.70	%	0	UKAS	LI	994
Kurtosis	1.07000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.04	mm	0	UKAS	LI	994
Particle Diameter : Median	0.03	mm	0	UKAS	LI	994
Sorting Coefficient	1.76000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	37.600	%		UKAS	LI	97
Mercury : Dry Wt	0.20600	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	12300.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	51.70	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	22400.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	144.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	18.000	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	47.1	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	1.2500	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	28.4000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	49.300	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	69.500	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	33.300	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	953.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	31.700	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	43.90	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	245.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	1180	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	791	mg/l	1	None	Sx	968

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	1770	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	45.10	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	113.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	108.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	447.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	484.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	126.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	498.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	363.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	371.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	218.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	460.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	85.70	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	51.0	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	603.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	69.4	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	440.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	105.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	121.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	317.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	535.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	< 2.780	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	1.190	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	1.080	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.360	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.02620	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.02000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	742.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	2010.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	12400.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	14700.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	36100.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	100000.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	131000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	211000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	35300.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	83800.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	216000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	411000.	ug/kg	3000	UKAS	Le	920

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	627000.	ug/kg	*4000*	UKAS	Le	920
Dry Solids @ 30°C	37.600	%	*0.5*	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861272
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a dark brown slushy sediment.

133.85g of the sample was taken for drying at <30degC which gave 53.98g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 50529.36 mg/kg

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Analytical Report

Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Batch description: DPC Gateway Samples 1- 19

Reported on: 09-Dec-2008

Client: Dublin Port Company
Folder No: 000861273
Comments: D.P. 2
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	1.930	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.55500000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.02	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.14000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	73.40	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	45.50	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	7.49	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	0.00	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	19.10	%	0	UKAS	LI	994
Kurtosis	0.77000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.04	mm	0	UKAS	LI	994
Particle Diameter : Median	0.02	mm	0	UKAS	LI	994
Sorting Coefficient	2.01000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	49.100	%		UKAS	LI	97
Mercury : Dry Wt	0.17100	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	11300.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	47.40	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	20000.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	184.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	12.800	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	49.5	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	1.1400	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	32.3000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	43.400	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	66.100	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	29.700	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	545.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	27.500	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	48.10	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	251.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	804	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	403	mg/l	1	None	Sx	968

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	1600	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	47.20	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	220.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	177.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	520.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	573.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	277.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	550.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	391.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	402.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	235.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	472.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	107.00	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	93.4	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	532.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	80.5	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	485.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	137.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	130.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	299.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	592.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	4.600	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 1.180	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.440	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.02620	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.06000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	642.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	2090.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	18400.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	18200.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	45600.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	87400.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	133000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	201000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	40700.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	83700.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	239000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	393000.	ug/kg	3000	UKAS	Le	920

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Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	632000.	ug/kg	*4000*	UKAS	Le	920
Dry Solids @ 30°C	49.100	%	*0.5*	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861273
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a dark brown sandy sediment.

189.14g of the sample was taken for drying at <30degC which gave 95.80g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 88320.86 mg/kg

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861274
Comments: D.P. 3
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	3.540	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.47600000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	9.00	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.29000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	1.02	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	0.16	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	86.80	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.02	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	1.33	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	0.00	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	9.81	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	0.00	%	0	UKAS	LI	994
Kurtosis	21.30000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	8.86	mm	0	UKAS	LI	994
Particle Diameter : Median	9.10	mm	0	UKAS	LI	994
Sorting Coefficient	0.12000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	99.300	%		UKAS	LI	97
Mercury : Dry Wt	0.00250	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	179.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	20.90	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	1590.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	451.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	< 1.000	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	< 10.0	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.0850	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	3.6500	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	1.310	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	1.940	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	0.550	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	862.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	0.950	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	2.92	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	9.190	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	69400	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	55500	mg/l	1	None	Sx	968

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Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	8670	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	< 2.00	ug/kg	2	UKAS	Li	1051
Acenaphthylene : Dry Wt	< 2.00	ug/kg	2	UKAS	Li	1051
Anthracene : Dry Wt	< 2.00	ug/kg	2	UKAS	Li	1051
Benzo(a)anthracene : Dry Wt	< 2.00	ug/kg	2	UKAS	Li	1051
Benzo(a)pyrene : Dry Wt	< 2.00	ug/kg	2	UKAS	Li	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	< 10.0	ug/kg	10	UKAS	Li	1051
Benzo(b)fluoranthene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Benzo(e)pyrene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Benzo(ghi)perylene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Benzo(k)fluoranthene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Chrysene : Dry Wt	< 2.00	ug/kg	2	UKAS	Li	1051
Dibenzo(ah)anthracene : Dry Wt	< 5.00	ug/kg	5	UKAS	Li	1051
Dibenzothiophene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Fluoranthene : Dry Wt	< 2.00	ug/kg	2	UKAS	Li	1051
Fluorene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Indeno(123cd)pyrene Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Naphthalene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Perylene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Phenanthrene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Pyrene : Dry Wt	4.70	ug/kg	2	UKAS	Li	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
Density	1.160	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	< 0.00786	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	314.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	< 400.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	< 900.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	< 4000.	ug/kg	*4000*	UKAS	Le	920
Dry Solids @ 30°C	99.300	%	*0.5*	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861274
The sample was received in a plastic bag weighing approx. 959.24g in total.
The sample appeared to be large brown pebbles.

424.46g of the sample was taken for drying at <30degC which gave 421.36g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text		None	No	950

Carbonate as CaCO3 195132.74 mg/kg

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861275
Comments: D.P. 4
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	2.170	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.53200000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.02	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.03000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	84.40	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	57.80	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	2.43	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	0.00	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	13.20	%	0	UKAS	LI	994
Kurtosis	2.33000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.03	mm	0	UKAS	LI	994
Particle Diameter : Median	0.02	mm	0	UKAS	LI	994
Sorting Coefficient	1.91000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	55.400	%		UKAS	LI	97
Mercury : Dry Wt	0.53700	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	22500.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	117.00	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	29800.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	198.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	19.000	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	65.9	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	2.3200	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	47.4000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	68.800	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	192.000	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	32.500	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	558.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	38.500	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	55.40	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	470.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	1180	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	266	mg/l	1	None	Sx	968

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	5280	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	165.00	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	103.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	432.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	1200.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	1250.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	222.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	1170.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	791.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	604.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	668.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	1030.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	193.00	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	127.0	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	1780.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	143.0	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	872.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	59.1	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	292.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	1160.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	1680.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.400	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.02620	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.10000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	573.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	823.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	41900.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	25300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	124000.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	208000.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	277000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	381000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	82000.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	96800.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	525000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	712000.	ug/kg	3000	UKAS	Le	920

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	1240000.	ug/kg	4000	UKAS	Le	920
Dry Solids @ 30°C	55.400	%	0.5	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861275
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

191.41g of the sample was taken for drying at <30degC which gave 108.66g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 88125.47 mg/kg

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861276
Comments: D.P. 5
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	2.420	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.00100000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	4.06	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.95000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	5.84	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	3.46	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	57.50	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	2.40	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	1.70	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.74	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	3.33	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	9.18	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	4.77	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	1.71	%	0	UKAS	LI	994
Kurtosis	-0.07000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	7.26	mm	0	UKAS	LI	994
Particle Diameter : Median	8.88	mm	0	UKAS	LI	994
Sorting Coefficient	2.09000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	96.000	%		UKAS	LI	97
Mercury : Dry Wt	0.01290	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	630.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	10.70	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	2360.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	715.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	1.510	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	< 10.0	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.1230	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	4.9000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	3.420	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	14.200	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	1.880	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	740.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	1.520	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	4.48	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	17.200	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	1130	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	568	mg/l	1	None	Sx	968

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Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	2240	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	9.20	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	7.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	10.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	24.40	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	25.30	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	< 10.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	27.9	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	21.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	20.5	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	12.4	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	21.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	< 5.00	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	30.60	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	23.6	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	19.2	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	25.4	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	35.70	ug/kg	2	UKAS	LI	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.680	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.26200	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.40000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	528.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	4060.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	3930.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	14100.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	31000.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	46300.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	109000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	13300.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	16000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	77900.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	161000.	ug/kg	3000	UKAS	Le	920

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Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	239000.	ug/kg	*4000*	UKAS	Le	920
Dry Solids @ 30°C	96.000	%	*0.5*	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861276
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be large brown / green rocks with a sandy sludge.

383.27g of the sample was taken for drying at <30degC which gave 368.28g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 167904.90 mg/kg

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Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Batch description: DPC Gateway Samples 1- 19

Reported on: 09-Dec-2008

Client: Dublin Port Company
Folder No: 000861277
Comments: D.P. 6
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / Test	Code
Carbon, Organic : Dry Wt as C	2.090	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.56600000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.02	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.07000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	75.60	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	48.90	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	5.54	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	0.00	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	18.90	%	0	UKAS	LI	994
Kurtosis	0.74000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.04	mm	0	UKAS	LI	994
Particle Diameter : Median	0.02	mm	0	UKAS	LI	994
Sorting Coefficient	1.93000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	45.900	%		UKAS	LI	97
Mercury : Dry Wt	0.16900	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	12200.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	43.60	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	19300.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	195.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	9.710	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	42.9	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.8110	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	27.8000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	33.900	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	46.200	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	23.700	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	390.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	21.500	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	43.00	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	171.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	550	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	144	mg/l	1	None	Sx	968

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	2100	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	42.00	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	204.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	146.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	424.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	455.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	229.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	453.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	318.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	326.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	188.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	398.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	88.50	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	81.1	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	422.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	79.2	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	400.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	135.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	102.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	253.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	458.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 15.300	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.110	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	0.600	ug/kg	0.1	UKAS	LI	685
Density	1.550	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.02360	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.20000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	357.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	2490.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	16000.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	22500.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	46700.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	127000.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	124000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	242000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	34900.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	76300.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	222000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	471000.	ug/kg	3000	UKAS	Le	920

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1-19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	693000.	ug/kg	4000	UKAS	Le	920
Dry Solids @ 30°C	45.900	%	0.5	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861277
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

166.68g of the sample was taken for drying at <30degC which gave 79.61g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text		None	No	950

Carbonate as CaCO3 83491.01 mg/kg

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861278
Comments: D.P. 7
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / Test	Code
Carbon, Organic : Dry Wt as C	1.670	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.41200000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.17	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.16000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	37.10	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	21.80	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	1.46	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	1.29	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	15.90	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	1.45	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	9.38	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	7.46	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	2.42	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	16.10	%	0	UKAS	LI	994
Kurtosis	2.63000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	1.40	mm	0	UKAS	LI	994
Particle Diameter : Median	0.38	mm	0	UKAS	LI	994
Sorting Coefficient	1.76000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	70.300	%		UKAS	LI	97
Mercury : Dry Wt	0.14600	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	13600.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	53.70	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	20200.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	207.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	9.690	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	48.8	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.8790	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	31.6000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	39.800	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	61.200	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	26.500	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	452.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	24.700	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	48.90	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	384.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	864	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	207	mg/l	1	None	Sx	968

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	3610	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	37.00	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	219.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	150.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	442.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	464.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	249.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	438.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	321.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	319.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	240.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	381.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	90.30	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	81.8	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	399.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	67.7	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	400.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	81.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	101.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	214.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	510.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	3.800	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 1.350	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	0.930	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	0.170	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	1.220	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	1.050	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.760	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.01310	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.04000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	466.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	1180.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	12600.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	18100.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	30700.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	92200.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	74800.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	179000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	23400.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	47400.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	142000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	338000.	ug/kg	3000	UKAS	Le	920

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	480000.	ug/kg	*4000*	UKAS	Le	920
Dry Solids @ 30°C	70.300	%	*0.5*	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861278
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

257.98g of the sample was taken for drying at <30degC which gave 182.96g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text		None	No	950

Carbonate as CaCO3 91956.73 mg/kg

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UKAS TESTING 0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861279
Comments: D.P. 8
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / Test	Code
Carbon, Organic : Dry Wt as C	1.560	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.57000000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.02	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.05000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	74.80	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	49.90	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	7.56	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	0.00	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	17.70	%	0	UKAS	LI	994
Kurtosis	0.89000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.04	mm	0	UKAS	LI	994
Particle Diameter : Median	0.02	mm	0	UKAS	LI	994
Sorting Coefficient	2.03000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	48.400	%		UKAS	LI	97
Mercury : Dry Wt	0.15900	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	11900.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	43.60	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	19600.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	218.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	9.890	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	42.0	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.8650	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	28.5000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	33.300	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	50.900	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	27.300	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	416.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	24.200	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	43.70	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	165.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	775	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	213	mg/l	1	None	Sx	968

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	2820	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	50.70	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	306.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	194.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	544.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	594.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	299.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	545.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	390.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	390.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	276.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	484.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	114.00	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	103.0	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	530.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	87.9	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	496.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	174.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	123.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	285.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	661.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	3.500	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	1.430	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	1.060	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	1.010	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	0.710	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.520	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	< 0.01830	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.04000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	1580.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	12600.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	19600.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	38800.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	120000.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	112000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	194000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	31500.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	60300.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	195000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	396000.	ug/kg	3000	UKAS	Le	920

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Analytical Report

Partial Reports - results awaited

UKAS TESTING 0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	591000.	ug/kg	*4000*	UKAS	Le	920
Dry Solids @ 30°C	48.400	%	*0.5*	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861279
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

206.10g of the sample was taken for drying at <30degC which gave 102.77g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 93092.41 mg/kg

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Analytical Report

Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861280
Comments: D.P. 9
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	1.630	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.55900000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.02	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.10000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	71.20	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	44.10	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	8.98	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	2.00	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.02	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	17.80	%	0	UKAS	LI	994
Kurtosis	7.94000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.05	mm	0	UKAS	LI	994
Particle Diameter : Median	0.03	mm	0	UKAS	LI	994
Sorting Coefficient	2.01000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	45.100	%		UKAS	LI	97
Mercury : Dry Wt	0.18900	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	15500.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	56.60	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	21000.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	202.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	11.900	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	56.3	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.8910	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	35.6000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	41.100	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	58.100	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	31.500	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	450.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	26.400	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	40.30	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	202.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	881	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	405	mg/l	1	None	Sx	968

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Microtox, 30 Minutes : EC50 Upper 95% confidence limit	1910	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	44.50	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	262.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	163.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	442.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	486.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	265.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	474.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	336.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	354.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	238.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	395.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	103.00	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	88.9	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	393.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	75.3	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	440.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	126.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	106.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	251.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	437.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	4.220	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 1.360	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.490	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.02100	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.06000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	870.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	2050.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	22800.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	16600.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	69600.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	125000.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	215000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	187000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	54600.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	52400.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	363000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	383000.	ug/kg	3000	UKAS	Le	920

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Analytical Report

Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	746000.	ug/kg	*4000*	UKAS	Le	920
Dry Solids @ 30°C	45.100	%	*0.5*	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861280
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

173.43g of the sample was taken for drying at <30degC which gave 81.32g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text		None	No	950

Carbonate as CaCO3 97176.08 mg/kg

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Analytical Report

Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Batch description: DPC Gateway Samples 1- 19

Reported on: 09-Dec-2008

Client: Dublin Port Company
Folder No: 000861281
Comments: D.P. 10
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	1.560	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.56300000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.03	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.04000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	71.00	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	45.30	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	9.47	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	2.27	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	17.20	%	0	UKAS	LI	994
Kurtosis	6.19000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.05	mm	0	UKAS	LI	994
Particle Diameter : Median	0.03	mm	0	UKAS	LI	994
Sorting Coefficient	1.99000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	43.000	%		UKAS	LI	97
Mercury : Dry Wt	0.13800	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	13400.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	43.10	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	19400.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	211.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	9.470	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	50.9	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.6470	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	29.3000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	32.500	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	40.700	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	27.000	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	383.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	21.800	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	46.10	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	150.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	327	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	69	mg/l	1	None	Sx	968

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Analytical Report

Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	1540	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	38.60	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	188.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	139.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	358.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	369.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	190.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	388.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	267.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	270.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	180.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	333.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	82.20	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	75.0	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	371.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	71.3	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	343.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	126.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	85.8	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	231.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	375.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	1.600	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.390	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.01830	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.03000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	2350.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	11600.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	17100.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	31100.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	109000.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	88900.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	179000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	30100.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	43700.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	162000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	351000.	ug/kg	3000	UKAS	Le	920

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Analytical Report

Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	513000.	ug/kg	4000	UKAS	Le	920
Dry Solids @ 30°C	43.000	%	0.5	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861281
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

144.77g of the sample was taken for drying at <30degC which gave 65.49g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 111625.95 mg/kg

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861282
Comments: D.P. 11
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	1.690	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.53600000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.02	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.06000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	85.50	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	54.30	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	2.90	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	0.10	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	11.50	%	0	UKAS	LI	994
Kurtosis	7.00000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.03	mm	0	UKAS	LI	994
Particle Diameter : Median	0.02	mm	0	UKAS	LI	994
Sorting Coefficient	0.79000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	39.300	%		UKAS	LI	97
Mercury : Dry Wt	0.18500	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	14500.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	49.70	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	23400.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	202.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	12.800	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	60.5	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.8440	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	35.3000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	44.000	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	57.500	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	35.100	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	441.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	27.500	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	53.90	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	195.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	761	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	220	mg/l	1	None	Sx	968

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Partial Reports - results awaited

UKAS 0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	2630	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	49.10	ug/kg	2	UKAS	Ll	1051
Acenaphthylene : Dry Wt	233.00	ug/kg	2	UKAS	Ll	1051
Anthracene : Dry Wt	164.00	ug/kg	2	UKAS	Ll	1051
Benzo(a)anthracene : Dry Wt	473.00	ug/kg	2	UKAS	Ll	1051
Benzo(a)pyrene : Dry Wt	525.00	ug/kg	2	UKAS	Ll	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	266.0	ug/kg	10	UKAS	Ll	1051
Benzo(b)fluoranthene : Dry Wt	517.0	ug/kg	10	UKAS	Ll	1051
Benzo(e)pyrene : Dry Wt	367.0	ug/kg	10	UKAS	Ll	1051
Benzo(ghi)perylene : Dry Wt	381.0	ug/kg	10	UKAS	Ll	1051
Benzo(k)fluoranthene : Dry Wt	229.0	ug/kg	10	UKAS	Ll	1051
Chrysene : Dry Wt	442.00	ug/kg	2	UKAS	Ll	1051
Dibenzo(ah)anthracene : Dry Wt	112.00	ug/kg	5	UKAS	Ll	1051
Dibenzothiophene : Dry Wt	93.5	ug/kg	10	UKAS	Ll	1051
Fluoranthene : Dry Wt	461.00	ug/kg	2	UKAS	Ll	1051
Fluorene : Dry Wt	79.3	ug/kg	10	UKAS	Ll	1051
Indeno(123cd)pyrene Dry Wt	477.0	ug/kg	10	UKAS	Ll	1051
Naphthalene : Dry Wt	125.0	ug/kg	10	UKAS	Ll	1051
Perylene : Dry Wt	115.0	ug/kg	10	UKAS	Ll	1051
Phenanthrene : Dry Wt	281.0	ug/kg	10	UKAS	Ll	1051
Pyrene : Dry Wt	511.00	ug/kg	2	UKAS	Ll	1051
PCB 028 DW	2.210	ug/kg	0.1	UKAS	Ll	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	Ll	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	Ll	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	Ll	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	Ll	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	Ll	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	Ll	685
Density	1.400	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.02360	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.05000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	469.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	2040.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	15600.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	17800.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	48300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	104000.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	155000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	190000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	39500.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	63900.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	259000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	378000.	ug/kg	3000	UKAS	Le	920

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Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	638000.	ug/kg	4000	UKAS	Le	920
Dry Solids @ 30°C	39.300	%	0.5	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861282
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

136.41g of the sample was taken for drying at <30degC which gave 57.17g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text		None	No	950

Carbonate as CaCO3 72037.51 mg/kg

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Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861283
Comments: D.P. 12
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	1.750	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.56600000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.03	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.23000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	59.70	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	37.00	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	15.40	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	3.76	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	21.10	%	0	UKAS	LI	994
Kurtosis	3.50000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.07	mm	0	UKAS	LI	994
Particle Diameter : Median	0.04	mm	0	UKAS	LI	994
Sorting Coefficient	2.13000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	49.900	%		UKAS	LI	97
Mercury : Dry Wt	0.09170	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	9820.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	33.70	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	17400.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	185.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	8.360	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	37.5	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.4950	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	23.7000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	28.900	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	32.200	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	23.000	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	385.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	19.600	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	36.30	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	117.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	201	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	45	mg/l	1	None	Sx	968

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	883	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	28.70	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	126.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	96.50	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	247.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	257.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- (2,3-Benzanthracene)	134.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	270.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	188.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	188.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	107.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	239.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	58.00	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	58.7	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	256.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	45.5	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	247.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	108.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	60.3	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	175.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	287.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.520	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.01830	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.02000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	2160.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	4980.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	11100.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	16900.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	67600.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	56500.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	120000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	18200.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	390000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	96700.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	240000.	ug/kg	3000	UKAS	Le	920

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	337000.	ug/kg	*4000*	UKAS	Le	920
Dry Solids @ 30°C	49.900	%	*0.5*	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861283
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

195.47g of the sample was taken for drying at <30degC which gave 100.39g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 89934.76 mg/kg

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861284
Comments: D.P. 13
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	0.981	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.38200000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.34	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.16000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	7.78	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	4.35	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	1.46	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	7.69	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	17.90	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	1.62	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	25.30	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	2.55	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	25.50	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	9.66	%	0	UKAS	LI	994
Kurtosis	21.10000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.79	mm	0	UKAS	LI	994
Particle Diameter : Median	0.38	mm	0	UKAS	LI	994
Sorting Coefficient	1.76000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	83.200	%		UKAS	LI	97
Mercury : Dry Wt	0.02830	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	5050.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	19.70	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	11500.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	235.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	5.510	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	18.3	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.5790	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	13.4000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	11.600	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	14.700	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	10.200	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	359.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	15.100	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	19.80	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	91.300	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	14100	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	6920	mg/l	1	None	Sx	968

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UKAS testing 0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	28800	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	6.50	ug/kg	2	UKAS	Li	1051
Acenaphthylene : Dry Wt	10.10	ug/kg	2	UKAS	Li	1051
Anthracene : Dry Wt	9.60	ug/kg	2	UKAS	Li	1051
Benzo(a)anthracene : Dry Wt	17.90	ug/kg	2	UKAS	Li	1051
Benzo(a)pyrene : Dry Wt	20.70	ug/kg	2	UKAS	Li	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	< 10.0	ug/kg	10	UKAS	Li	1051
Benzo(b)fluoranthene : Dry Wt	33.1	ug/kg	10	UKAS	Li	1051
Benzo(e)pyrene : Dry Wt	22.0	ug/kg	10	UKAS	Li	1051
Benzo(ghi)perylene : Dry Wt	20.2	ug/kg	10	UKAS	Li	1051
Benzo(k)fluoranthene : Dry Wt	< 11.5	ug/kg	10	UKAS	Li	1051
Chrysene : Dry Wt	24.60	ug/kg	2	UKAS	Li	1051
Dibenzo(ah)anthracene : Dry Wt	< 5.00	ug/kg	5	UKAS	Li	1051
Dibenzothiophene : Dry Wt	11.3	ug/kg	10	UKAS	Li	1051
Fluoranthene : Dry Wt	19.80	ug/kg	2	UKAS	Li	1051
Fluorene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Indeno(123cd)pyrene Dry Wt	22.6	ug/kg	10	UKAS	Li	1051
Naphthalene : Dry Wt	31.4	ug/kg	10	UKAS	Li	1051
Perylene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Phenanthrene : Dry Wt	< 10.0	ug/kg	10	UKAS	Li	1051
Pyrene : Dry Wt	25.90	ug/kg	2	UKAS	Li	1051
PCB 028 DW	0.770	ug/kg	0.1	UKAS	Li	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	Li	685
Density	1.820	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	< 0.01050	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.00900	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	576.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	774.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	2650.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	10100.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	8690.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	13500.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	< 900.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	5910.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	12500.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	30400.	ug/kg	3000	UKAS	Le	920

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Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	42900.	ug/kg	4000	UKAS	Le	920
Dry Solids @ 30°C	83.200	%	0.5	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861264
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick, sandy sediment.

296.84g of the sample was taken for drying at <30degC which gave 247.99g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 159124.91 mg/kg

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Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861285
Comments: D.P. 14
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	1.060	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.34600000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.23	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	0.22000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	23.60	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	15.10	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	5.51	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	1.83	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	22.90	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	4.26	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	3.80	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	10.30	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	1.86	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	23.00	%	0	UKAS	LI	994
Kurtosis	2.70000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	1.44	mm	0	UKAS	LI	994
Particle Diameter : Median	0.13	mm	0	UKAS	LI	994
Sorting Coefficient	3.53000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	67.100	%		UKAS	LI	97
Mercury : Dry Wt	0.13700	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	9860.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	35.70	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	14300.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	233.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	7.760	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	34.6	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.4340	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	23.9000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	20.600	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	34.900	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	20.100	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	331.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	17.000	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	27.30	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	98.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	762	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	299	mg/l	1	None	Sx	968

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Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	1940	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	38.00	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	92.20	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	101.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	255.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	235.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	83.5	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	261.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	180.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	171.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	114.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	242.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	52.40	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	42.4	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	403.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	60.6	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	223.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	63.4	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	63.7	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	203.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	368.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.630	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	0.01570	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.03000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	402.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	4740.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	3940.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	14400.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	28300.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	44800.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	55500.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	11400.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	18500.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	75600.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	107000.	ug/kg	3000	UKAS	Le	920

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UKAS TESTING 0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	182000.	ug/kg	4000	UKAS	Le	920
Dry Solids @ 30°C	67.100	%	0.5	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861285
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

247.25g of the sample was taken for drying at <30degC which gave 167.85g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 141862.49 mg/kg

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Analytical Report

Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861286
Comments: D.P. 15
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)

Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	3.340	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.56600000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.03	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.23000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	60.20	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	36.90	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	16.90	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	3.20	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	19.70	%	0	UKAS	LI	994
Kurtosis	1.18000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.07	mm	0	UKAS	LI	994
Particle Diameter : Median	0.04	mm	0	UKAS	LI	994
Sorting Coefficient	2.16000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	51.500	%		UKAS	LI	97
Mercury : Dry Wt	0.13800	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	13900.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	53.20	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	16400.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	193.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	8.400	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	44.0	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.7730	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	29.4000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	29.400	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	44.800	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	24.500	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	391.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	21.200	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	35.30	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	153.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	637	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	279	mg/l	1	None	Sx	968

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UKAS TESTING 0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	1460	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	41.10	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	264.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	166.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	441.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	474.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	256.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	453.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	321.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	321.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	214.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	382.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	97.40	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	87.9	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	404.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	70.0	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	405.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	82.9	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	102.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	232.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	489.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	1.520	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.690	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.650	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	< 0.01570	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.05000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	1030.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	9820.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	11000.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	29900.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	82900.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	92400.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	146000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	28300.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	50400.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	161000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	292000.	ug/kg	3000	UKAS	Le	920

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	452000.	ug/kg	*4000*	UKAS	Le	920
Dry Solids @ 30°C	51.500	%	*0.5*	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861286
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

212.14g of the sample was taken for drying at <30degC which gave 111.99g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 89113.26 mg/kg

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Analytical Report

Partial Reports - results awaited

UKAS TESTING 0754

Report ID - 20011055 - 1

Batch description: DPC Gateway Samples 1- 19

Reported on: 09-Dec-2008

Client: Dublin Port Company
Folder No: 000861287
Comments: D.P. 16
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)

Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	1.390	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.54700000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.04	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.16000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	57.10	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	35.10	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	14.10	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	8.49	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	2.00	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	18.30	%	0	UKAS	LI	994
Kurtosis	4.47000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.09	mm	0	UKAS	LI	994
Particle Diameter : Median	0.05	mm	0	UKAS	LI	994
Sorting Coefficient	2.29000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	55.500	%		UKAS	LI	97
Mercury : Dry Wt	0.07890	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	16000.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	73.20	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	14000.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	225.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	7.150	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	45.0	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.4460	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	21.8000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	22.500	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	29.700	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	25.500	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	735.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	15.400	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	41.50	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	104.000	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	303	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	77	mg/l	1	None	Sx	968

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Partial Reports - results awaited

0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	1180	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	22.90	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	123.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	82.90	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	204.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	219.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	106.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	215.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	153.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	154.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	97.2	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	195.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	47.70	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	55.0	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	187.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	40.6	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	187.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	58.5	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	47.9	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	146.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	214.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	3.760	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.580	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	< 0.01310	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.02000	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	2240.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	3580.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	12800.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	13400.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	189000.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	40700.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	170000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	13800.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	63500.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	71600.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	437000.	ug/kg	3000	UKAS	Le	920

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	509000.	ug/kg	*4000*	UKAS	Le	920
Dry Solids @ 30°C	55.500	%	*0.5*	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861287
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a black, thick sediment.

208.21g of the sample was taken for drying at <30degC which gave 118.08g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 147969.05 mg/kg

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861288
Comments: D.P. 17
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	1.810	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.51800000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.25	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	0.03000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	42.00	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	40.40	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	9.17	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	8.32	%	0	UKAS	LI	994
Kurtosis	2.29000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.29	mm	0	UKAS	LI	994
Particle Diameter : Median	0.25	mm	0	UKAS	LI	994
Sorting Coefficient	0.74000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	83.500	%		UKAS	LI	97
Mercury : Dry Wt	0.00940	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	2560.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	6.30	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	7620.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	132.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	4.230	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	< 10.0	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.1420	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	9.2300	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	2.340	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	3.900	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	5.840	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	283.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	7.940	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	16.90	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	21.100	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	757000	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	< 2.50	ug/kg	2	UKAS	LI	1051

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Acenaphthylene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	< 10.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	< 5.00	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	< 0.890	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.630	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	< 0.00786	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	893.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	1710.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	< 900.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	3140.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	4120.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	7260.	ug/kg	4000	UKAS	Le	920
Dry Solids @ 30°C	83.500	%	0.5	None	Le	924

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Sample Preparation	Report	Text	None	Le	924

Folder Number: 861288
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a medium brown sandy sediment.

184.78g of the sample was taken for drying at <30degC which gave 155.25g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 153790.09 mg/kg

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Report ID - 20011055 - 1

Batch description: DPC Gateway Samples 1- 19

Reported on: 09-Dec-2008

Client: Dublin Port Company
Folder No: 000861289
Comments: D.P. 18
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)

Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	0.536	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.39800000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.04	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.43000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	56.30	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	24.80	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.18	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	8.77	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	1.50	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	1.43	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.28	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.17	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	29.40	%	0	UKAS	LI	994
Kurtosis	57.90000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.12	mm	0	UKAS	LI	994
Particle Diameter : Median	0.05	mm	0	UKAS	LI	994
Sorting Coefficient	1.99000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	72.200	%		UKAS	LI	97
Mercury : Dry Wt	0.00960	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	10100.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	28.60	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	14900.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	188.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	5.200	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	25.7	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.1170	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	20.3000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	6.670	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	8.840	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	18.700	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	354.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	14.200	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	34.70	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	37.800	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	2740	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	1730	mg/l	1	None	Sx	968

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UKAS TESTING 0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	4350	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	2.50	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	< 2.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	< 10.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	12.4	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	6.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	< 5.00	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	4.10	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	16.7	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	18.5	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	3.70	ug/kg	2	UKAS	LI	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
Density	1.820	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	< 0.01050	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	< 0.00400	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	490.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	< 400.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	< 900.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920

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UKAS TESTING 0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt (EPH)	< 4000.	ug/kg	4000	UKAS	Le	920
Dry Solids @ 30°C	72.200	%	0.5	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861289
The sample was received in a plastic bag weighing over 2200g in total.
The sample appeared to be a light brown sediment.

297.19g of the sample was taken for drying at <30degC which gave 216.30g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 155165.29 mg/kg

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Client: Dublin Port Company
Folder No: 000861290
Comments: D.P. 19
Quote No: 4190

Project: Sediment Sampling
Sampled on: 20-Oct-08 @ (Time not supplied)
Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	1.220	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.67800000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	2.41	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.91000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	49.40	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	2.67	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	16.50	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	4.43	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	3.80	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	12.90	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	2.68	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	6.43	%	0	UKAS	LI	994
Kurtosis	11.64000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	5.60	mm	0	UKAS	LI	994
Particle Diameter : Median	8.04	mm	0	UKAS	LI	994
Sorting Coefficient	2.40000000	Unitless	-3	UKAS	LI	994
Dry Matter : %	93.300	%		UKAS	LI	97
Mercury : Dry Wt	0.01590	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	6520.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	103.00	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	9020.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	353.00	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	4.690	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	27.6	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.2050	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	13.0000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	8.190	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	6.110	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	9.560	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	674.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	8.430	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	14.30	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	14.800	mg/kg	0.2	UKAS	LI	1041
Microtox, 30 Minutes : EC50	7260	mg/l	1	None	Sx	968
Microtox, 30 Minutes : EC50 Lower 95% confidence limit	5540	mg/l	1	None	Sx	968

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UKAS TESTING 0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Microtox, 30 Minutes : EC50 Upper 95% confidence limit	9510	mg/l	1	None	Sx	968
Acenaphthene : Dry Wt	6.20	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	3.90	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	7.70	ug/kg	2	UKAS	LI	1051
Benzo(a)anthracene : Dry Wt	27.50	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	19.40	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	< 10.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	30.1	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	21.6	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	23.7	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	11.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	26.60	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	< 5.00	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	40.70	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	22.6	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	< 10.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	34.6	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	42.60	ug/kg	2	UKAS	LI	1051
PCB 028 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	< 0.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	< 0.540	ug/kg	0.1	UKAS	LI	685
Density	1.890	g/ml	0.1	None	Le	881
Dibutyl Tin : Dry Wt as cation	< 0.00786	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	< 0.00300	mg/kg	0.003	UKAS	Le	897
Equiv.Carbon No >10-12 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >10-12 Aromatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >12-16 Aromatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aliphatic fraction : Dry Wt	< 300.	ug/kg	300	UKAS	Le	920
Equiv.Carbon No >16-21 Aromatic fraction : Dry Wt	1330.	ug/kg	400	UKAS	Le	920
Equiv.Carbon No >21-35 Aliphatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >21-35 Aromatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Equiv.Carbon No >35-40 Aliphatic fraction : Dry Wt	< 900.	ug/kg	900	UKAS	Le	920
Equiv.Carbon No >35-40 Aromatic fraction : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aliphatic extractable C10 - C40 : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920
Hydrocarbons, Aromatic extractable C10 - C40 : Dry Wt	< 3000.	ug/kg	3000	UKAS	Le	920

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0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Hydrocarbons, Total extractable C10 - C40 : Dry Wt {EPH}	< 4000.	ug/kg	4000	UKAS	Le	920
Dry Solids @ 30°C	93.300	%	0.5	None	Le	924
Sample Preparation	Report	Text		None	Le	924

Folder Number: 861290
The sample was received in a plastic bag weighing approx 973.61g in total.
The sample appeared to be a brown sandy sediment with pebbles present.

179.95g of the sample was taken for drying at <30degC which gave 168.30g of dried sample.
The sample was sieved to <10mm before being crushed using a pestle and mortar.
No waste was discarded after sieving at 10mm.
The sample was received unpreserved.

All parameters are determined on the air-dried (<30degC) portion except those requiring a wet sample fraction where as received (wet) sample was used.

Dry Weight (DW) results are reported as determined at <30degC.

Forensic Analysis - Report	1	Text	None	No	950

Carbonate as CaCO3 243123.77 mg/kg

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UKAS TESTING 0754

Report ID - 20011055 - 1

Batch description: DPC Gateway Samples 1- 19

Reported on: 09-Dec-2008

Client: Dublin Port Company
Folder No: 000861291
Comments: CRM
Quote No: 4190

Project: Sediment Sampling
Sampled on: 22-Oct-08 @ (Time not supplied)

Matrix: Sediment

	Result		MRV	Accred	Lab / TestCode	
Carbon, Organic : Dry Wt as C	0.490	%	0.4	None	LI	404
Grain Size Inclusive Kurtosis	0.52100000	mm	-12	UKAS	LI	994
Grain Size Inclusive Mean	0.14	mm	0	UKAS	LI	994
Inclusive Graphic Skewness :- {SKI}	-0.05000000	Unitless	-1	UKAS	LI	994
Grain Size Fraction : < 63 microns	6.45	%	0	UKAS	LI	994
Grain Size Fraction : < 20 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : > 8000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 1000 to 2000 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 125 to 249 microns	46.30	%	0	UKAS	LI	994
Grain Size Fraction : 2000 to 3999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 250 to 499 microns	13.60	%	0	UKAS	LI	994
Grain Size : 4000 to 7999 microns	0.00	%	0	UKAS	LI	994
Grain Size Fraction : 500 to 999 microns	0.01	%	0	UKAS	LI	994
Grain Size Fraction : 63 to 125 microns	33.70	%	0	UKAS	LI	994
Kurtosis	0.56000000	Unitless	-12	UKAS	LI	994
Particle Diameter : Mean	0.16	mm	0	UKAS	LI	994
Particle Diameter : Median	0.14	mm	0	UKAS	LI	994
Sorting Coefficient	0.75000000	Unitless	-3	UKAS	LI	994
Mercury : Dry Wt	0.10400	mg/kg	0.001	UKAS	LI	1042
Aluminium : Dry Wt	26800.000	mg/kg	0.4	UKAS	LI	1043
Barium : Dry Wt	339.00	mg/kg	1	UKAS	LI	1043
Iron : Dry Wt	33300.000	mg/kg	0.3	UKAS	LI	1043
Strontium : Dry Wt	68.80	mg/kg	2	UKAS	LI	1043
Arsenic : Dry Wt	16.000	mg/kg	0.1	UKAS	LI	1041
Boron : Dry Wt	82.9	mg/kg	10	UKAS	LI	1041
Cadmium : Dry Wt	0.1740	mg/kg	0.01	UKAS	LI	1041
Chromium : Dry Wt	52.6000	mg/kg	0.05	UKAS	LI	1041
Copper : Dry Wt	26.900	mg/kg	0.1	UKAS	LI	1041
Lead : Dry Wt	16.500	mg/kg	0.2	UKAS	LI	1041
Lithium : Dry Wt	54.400	mg/kg	0.1	UKAS	LI	1041
Manganese : Dry Wt	230.000	mg/kg	0.2	UKAS	LI	1041
Nickel : Dry Wt	34.700	mg/kg	0.3	UKAS	LI	1041
Vanadium : Dry Wt	202.00	mg/kg	1	UKAS	LI	1041
Zinc : Dry Wt	130.000	mg/kg	0.2	UKAS	LI	1041
Acenaphthene : Dry Wt	413.00	ug/kg	2	UKAS	LI	1051
Acenaphthylene : Dry Wt	1920.00	ug/kg	2	UKAS	LI	1051
Anthracene : Dry Wt	1230.00	ug/kg	2	UKAS	LI	1051

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UKAS TESTING 0754

Report ID - 20011055 - 1

Reported on: 09-Dec-2008

Batch description: DPC Gateway Samples 1- 19

Benzo(a)anthracene : Dry Wt	4130.00	ug/kg	2	UKAS	LI	1051
Benzo(a)pyrene : Dry Wt	3010.00	ug/kg	2	UKAS	LI	1051
Benzo(b)anthracene : Dry Wt :- {2,3-Benzanthracene}	2730.0	ug/kg	10	UKAS	LI	1051
Benzo(b)fluoranthene : Dry Wt	3680.0	ug/kg	10	UKAS	LI	1051
Benzo(e)pyrene : Dry Wt	2510.0	ug/kg	10	UKAS	LI	1051
Benzo(ghi)perylene : Dry Wt	1860.0	ug/kg	10	UKAS	LI	1051
Benzo(k)fluoranthene : Dry Wt	1650.0	ug/kg	10	UKAS	LI	1051
Chrysene : Dry Wt	5300.00	ug/kg	2	UKAS	LI	1051
Dibenzo(ah)anthracene : Dry Wt	513.00	ug/kg	5	UKAS	LI	1051
Dibenzothiophene : Dry Wt	567.0	ug/kg	10	UKAS	LI	1051
Fluoranthene : Dry Wt	7240.00	ug/kg	2	UKAS	LI	1051
Fluorene : Dry Wt	482.0	ug/kg	10	UKAS	LI	1051
Indeno(123cd)pyrene Dry Wt	1930.0	ug/kg	10	UKAS	LI	1051
Naphthalene : Dry Wt	1760.0	ug/kg	10	UKAS	LI	1051
Perylene : Dry Wt	690.0	ug/kg	10	UKAS	LI	1051
Phenanthrene : Dry Wt	4960.0	ug/kg	10	UKAS	LI	1051
Pyrene : Dry Wt	7130.00	ug/kg	2	UKAS	LI	1051
PCB 028 DW	76.000	ug/kg	0.1	UKAS	LI	685
PCB 052 DW	78.700	ug/kg	0.1	UKAS	LI	685
PCB 101 DW	62.100	ug/kg	0.1	UKAS	LI	685
PCB 118 DW	52.300	ug/kg	0.1	UKAS	LI	685
PCB 138 DW	52.800	ug/kg	0.1	UKAS	LI	685
PCB 153 DW	64.100	ug/kg	0.1	UKAS	LI	685
PCB 180 DW	48.200	ug/kg	0.1	UKAS	LI	685
Dibutyl Tin : Dry Wt as cation	0.78600	mg/kg	0.003	UKAS	Le	897
Tributyl Tin : Dry Wt as cation	0.50000	mg/kg	0.003	UKAS	Le	897
Sample Preparation	Report	Text		None	Le	924
CRM						
Forensic Analysis - Report	1	Text		None	No	950

Carbonate as CaCO3 987128.71 mg/kg Ref1 expected 98%+ Actual 98.7%

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UKAS TESTING 0754

Report ID - 20011055 - 1

Batch description: DPC Gateway Samples 1- 19

Reported on: 09-Dec-2008

Method Description Summary for all samples in batch Number 20011055

Testcode	Method Description
97	Moisture, Loss on Ignition - determined by gravimetry at specific temperature
404	C,H,N - combusted, determined by TCD, Organic C - acid pretreated to remove inorganic carbonates
672	OCPs - solvent extracted, determined by GCMS (SIM)
685	PCBs - solvent extracted, determined by GCMS (SIM)
881	Density - volume taken, mass determined, density calculated
897	Organotins - acetic acid/methanol extracted, derivatised, determined GCMS (SIM)
920	HCs (>C10-C40) - acetone/hexane ext., solid phase clean up, determined by GCMS
924	Sample Preparation, Dry Solids (30°C)
950	Forsensic analysis report
951	Not Available
968	'Microtox' Toxicity Test by Luminescent Bacteria
994	Particle Size bands - determined by laser light diffraction
1041	Metals - microwave aqua regia digested, determined by ICPMS
1042	Mercury - microwave aqua regia digested, acidic SnCl2 reduced, determined by CV-AFS
1043	Metals - microwave aqua regia digested, determined by ICPOES
1051	PAHs - solvent extracted, determined by GCMS (EI)

All reporting limits quoted are those achievable for clean samples of the relevant matrix. No allowance is made for instances when dilutions are necessary owing to the nature of the sample or insufficient volume of the sample being available. In these cases higher reporting limits may be quoted and will be above the MRV.

Please note all samples will be retained for thirty working days after reporting unless otherwise agreed with Customer Services

Key to Accreditation: UKAS = Methodology accredited to ISO/IEC 17025:2005, MCertS = Methodology accredited to MCertS Performance Standard for testing of soils, none = Methodology not accredited

Key to Lab Code: Le = Leeds, Ll = Llanelli, No = Nottingham, Sx = Starcross, SC = Sub-Contracted outside NLS, Fi = Field Data

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