



Marchwood Scientific Services

Unit 4G Central Crescent,
Marchwood Industrial Park,
Marchwood,
Southampton, Hants,
SO40 4BJ

Tel: 02380-669126
Fax: 02380-669127

Name of Client : Shanks plc
Address : New Inn, Pontypool, Gwent, S Wales

Test Certificate No: 105-2313

ANALYSIS OF PCBs

Job Reference: Shanks - Pontypool
Sample Identifier : BH56
Sample No: 105-2313
Order No:

Date of Receipt : 05/10/05
Date of Analysis : 20/10/05
Date of Report : 24/10/05
No of Samples in Batch : 41
Sample Condition : normal

Instrument : Micromass Ultima NT
GC Column : DB5
Calibration File : 201005

Test Method : 1122
Blank :
Sample Size : 0.5

expressed as ng / l

Congener	Conc	DL	Rec %
PCB-28	31.8052	0.0140	99
PCB-52	13.7586	0.0020	131
PCB-101	8.4392	0.0020	97
PCB-118	4.4216	0.0020	
PCB-138	8.3194	0.0080	94
PCB-153	8.1024	0.0120	93
PCB-180	4.6084	0.0480	88

Conc Concentration
DL Detection Value
* Isomer Not detected

Name of Analyst : K Pettit
Position : Technical Manager

Signature of Analyst : 





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Sample Condition : normal

Instrument : Micromass Ultima NT
GC Column : DB5
Calibration File : 201005

Test Method : 1122
Blank :
Sample Size : 0.5

expressed as ng / l

Congener	Conc	TEFs	TEQ ¹	TEQ ²	DL	Rec %
PCB-81	0.1012	0.00010	0.0000	0.0000	0.0200	83
PCB-77	0.2284	0.00010	0.0000	0.0000	0.0180	76
PCB-123	0.6632	0.00010	0.0001	0.0001	0.0080	70
PCB-118	5.2894	0.00010	0.0005	0.0005	0.0100	65
PCB-114	0.0812	0.00050	0.0000	0.0000	0.0060	85
PCB-105	1.0790	0.00010	0.0001	0.0001	0.0080	47
PCB-126	0.0008	0.10000	0.0001	0.0001	0.0180	38
PCB-167	0.1846	0.00001	0.0000	0.0000	0.0180	85
PCB-156	0.4810	0.00050	0.0002	0.0002	0.0160	87
PCB-157	0.1068	0.00050	0.0001	0.0001	0.0160	89
PCB-169	0.0000	0.01000	0.0000	0.0000	0.0120	103
PCB-189	0.0692	0.00010	0.0000	0.0000	0.0140	96
TEQ (WHO)			0.0012	0.0012		

* Isomer Not detected
TEQ Toxic Equivalent Value
TEF Toxic Equivalent Factor
Conc Concentration
DL Detection Value

TEQ¹ Concentration of Non Detected
Congeners at Detection Limit
TEQ² Concentration of Non Detected
Congeners at Zero

Name of Analyst : K Pettit
Position : Technical Manager

Signature of Analyst :





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Name of Client : Shanks plc
Address : New Inn, Pontypool, Gwent, S Wales

Test Certificate No: 282ec7pcb

ANALYSIS OF PCBs

Job Reference: Shanks - Pontypool
Sample Identifier : BH74
Sample No: 105-2282ec7pcb
Order No:

Date of Receipt : 05/10/05
Date of Analysis : 19/10/05
Date of Report : 20/10/05
No of Samples in Batch : 41
Sample Condition : normal

Instrument : Micromass Ultima NT
GC Column : DB5
Calibration File : 191005

Test Method : 1122
Blank :
Sample Size : 0.5

expressed as ng / l

Congener	Conc	DL	Rec %
PCB-28	3.0728	0.0000	84
PCB-52	1.5932	0.0010	87
PCB-101	1.6399	0.0010	95
PCB-118	0.9872	0.0010	
PCB-138	3.4255	0.0030	101
PCB-153	3.2023	0.0040	102
PCB-180	2.3333	0.0100	96

Conc Concentration
DL Detection Value
* Isomer Not detected

Name of Analyst : K Pettit
Position : Technical Manager

Signature of Analyst :



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Name of Client : Shanks plc
Address : New Inn, Pontypool, Gwent, S Wales

Test Certificate No: 5-2282who

ANALYSIS OF PCBs

Job Reference: Shanks - Pontypool
Sample Identifier : BH74
Sample No: 105-2282who
Order No:

Date of Receipt : 05/10/05
Date of Analysis : 19/10/05
Date of Report : 20/10/05
No of Samples in Batch : 41
Sample Condition : normal

Instrument : Micromass Ultima NT
GC Column : DB5
Calibration File : 201005

Test Method : 1122
Blank :
Sample Size : 0.5

expressed as ng / l

Congener	Conc	TEFs	TEQ ¹	TEQ ²	DL	Rec %
PCB-81	0.0664	0.00010	0.0000	0.0000	0.0120	84
PCB-77	0.2764	0.00010	0.0000	0.0000	0.0120	90
PCB-123	0.4420	0.00010	0.0000	0.0000	0.0120	67
PCB-118	3.2230	0.00010	0.0003	0.0003	0.0140	63
PCB-114	0.0706	0.00050	0.0000	0.0000	0.0080	78
PCB-105	0.8294	0.00010	0.0001	0.0001	0.0120	57
PCB-126	0.0256	0.10000	0.0026	0.0026	0.0240	66
PCB-167	0.2328	0.00001	0.0000	0.0000	0.0140	80
PCB-156	0.4288	0.00050	0.0002	0.0002	0.0100	88
PCB-157	0.1086	0.00050	0.0001	0.0001	0.0120	88
PCB-169	0.0000	0.01000	0.0000	0.0000	0.0100	96
PCB-189	0.0886	0.00010	0.0000	0.0000	0.0080	95
TEQ (WHO)			0.0034	0.0034		

* Isomer Not detected
TEQ Toxic Equivalent Value
TEF Toxic Equivalent Factor
Conc Concentration
DL Detection Value

TEQ¹ Concentration of Non Detected
Congeners at Detection Limit
TEQ² Concentration of Non Detected
Congeners at Zero

Name of Analyst : K Pettit
Position : Technical Manager

Signature of Analyst :



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Name of Client : Shanks plc
Address : New Inn, Pontypool, Gwent, S Wales

Test Certificate No: 286ec7pcb

ANALYSIS OF PCBs

Job Reference: Shanks - Pontypool
Sample Identifier : BH88
Sample No: 105-2286ec7pcb
Order No:

Date of Receipt : 05/10/05
Date of Analysis : 19/10/05
Date of Report : 20/10/05
No of Samples in Batch : 41
Sample Condition : normal

Instrument : Micromass Ultima NT
GC Column : DB5
Calibration File : 191005

Test Method : 1122
Blank :
Sample Size : 0.5

expressed as ng / l

Congener	Conc	DL	Rec %
PCB-28	1.9180	0.0020	80
PCB-52	1.1402	0.0020	102
PCB-101	0.4260	0.0020	80
PCB-118	0.2492	0.0040	
PCB-138	0.3708	0.0140	91
PCB-153	0.2628	0.0200	91
PCB-180	0.3108	0.0140	105

Conc Concentration
DL Detection Value
* Isomer Not detected

Name of Analyst : K Pettit
Position : Technical Manager

Signature of Analyst :



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Name of Client : Shanks plc
Address : New Inn, Pontypool, Gwent, S Wales

Test Certificate No: 5-2286who

ANALYSIS OF PCBs

Job Reference: Shanks - Pontypool
Sample Identifier : BH88
Sample No: 105-2286who
Order No:

Date of Receipt : 05/10/05
Date of Analysis : 19/10/05
Date of Report : 20/10/05
No of Samples in Batch : 41
Sample Condition : normal

Instrument : Micromass Ultima NT
GC Column : DB5
Calibration File : 201005

Test Method : 1122
Blank :
Sample Size : 0.5

expressed as ng / l

Congener	Conc	TEFs	TEQ ¹	TEQ ²	DL	Rec %
PCB-81	0.0160	0.00010	0.0000	0.0000	0.0120	68
PCB-77	0.0362	0.00010	0.0000	0.0000	0.0100	64
PCB-123	0.0384	0.00010	0.0000	0.0000	0.0080	74
PCB-118	0.3064	0.00010	0.0000	0.0000	0.0100	67
PCB-114	0.0110	0.00050	0.0000	0.0000	0.0060	89
PCB-105	0.0868	0.00010	0.0000	0.0000	0.0080	52
PCB-126	0.0004	0.10000	0.0000	0.0000	0.0160	62
PCB-167	0.0060	0.00001	0.0000	0.0000	0.0220	83
PCB-156	0.0386	0.00050	0.0000	0.0000	0.0140	96
PCB-157	0.0400	0.00050	0.0000	0.0000	0.0160	96
PCB-169	0.0480	0.01000	0.0005	0.0005	0.0120	113
PCB-189	0.0022	0.00010	0.0000	0.0000	0.0060	80
TEQ (WHO)			0.0006	0.0006		

* Isomer Not detected
TEQ Toxic Equivalent Value
TEF Toxic Equivalent Factor
Conc Concentration
DL Detection Value

TEQ¹ Concentration of Non Detected
Congeners at Detection Limit
TEQ² Concentration of Non Detected
Congeners at Zero

Name of Analyst : K Pettit
Position : Technical Manager

Signature of Analyst :



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Name of Client : Shanks plc
Address : New Inn, Pontypool, Gwent, S Wales

Test Certificate No: 281ec7pcb

ANALYSIS OF PCBs

Job Reference: Shanks - Pontypool
Sample Identifier : BH89
Sample No: 105-2281ec7pcb
Order No:

Date of Receipt : 05/10/05
Date of Analysis : 19/10/05
Date of Report : 20/10/05
No of Samples in Batch : 41
Sample Condition : normal

Instrument : Micromass Ultima NT
GC Column : DB5
Calibration File : 191005

Test Method : 1122
Blank :
Sample Size : 0.5

expressed as ng / l

Congener	Conc	DL	Rec %
PCB-28	26.6770	0.0020	91
PCB-52	7.2786	0.0020	113
PCB-101	2.8124	0.0020	87
PCB-118	1.9526	0.0040	
PCB-138	3.5516	0.0060	89
PCB-153	3.6872	0.0080	93
PCB-180	3.0782	0.0120	101

Conc Concentration
DL Detection Value
* Isomer Not detected

Name of Analyst : K Pettit
Position : Technical Manager

Signature of Analyst : 



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Name of Client : Shanks plc
Address : New Inn, Pontypool, Gwent, S Wales

Test Certificate No: 15-2281who

ANALYSIS OF PCBs

Job Reference: Shanks - Pontypool
Sample Identifier : BH89
Sample No: 105-2281who
Order No:

Date of Receipt : 05/10/05
Date of Analysis : 19/10/05
Date of Report : 20/10/05
No of Samples in Batch : 41
Sample Condition : normal

Instrument : Micromass Ultima NT
GC Column : DB5
Calibration File : 201005

Test Method : 1122
Blank :
Sample Size : 0.5

expressed as ng / l

Congener	Conc	TEFs	TEQ ¹	TEQ ²	DL	Rec %
PCB-81	0.0008	0.00010	0.0000	0.0000	0.0080	71
PCB-77	0.2948	0.00010	0.0000	0.0000	0.0080	77
PCB-123	0.2480	0.00010	0.0000	0.0000	0.0080	90
PCB-118	1.9956	0.00010	0.0002	0.0002	0.0080	95
PCB-114	0.0610	0.00050	0.0000	0.0000	0.0060	96
PCB-105	0.7124	0.00010	0.0001	0.0001	0.0080	70
PCB-126	0.0248	0.10000	0.0025	0.0025	0.0160	69
PCB-167	0.1086	0.00001	0.0000	0.0000	0.0100	89
PCB-156	0.2568	0.00050	0.0001	0.0001	0.0060	106
PCB-157	0.0600	0.00050	0.0000	0.0000	0.0080	100
PCB-169	0.0018	0.01000	0.0000	0.0000	0.0060	101
PCB-189	0.0410	0.00010	0.0000	0.0000	0.0100	91
TEQ (WHO)			0.0030	0.0030		

* Isomer Not detected
TEQ Toxic Equivalent Value
TEF Toxic Equivalent Factor
Conc Concentration
DL Detection Value

TEQ¹ Concentration of Non Detected
Congeners at Detection Limit
TEQ² Concentration of Non Detected
Congeners at Zero

Name of Analyst : K Pettit
Position : Technical Manager

Signature of Analyst :

C2380 669127

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LABORATORY SAMPLES CHAIN OF CUSTODY

Site: <u>Shanks Portpool Golder Associates</u>	Job Number:
Project Engineer:	Sampling Date:
Laboratory: <u>Marchwood Scientific</u>	Order Number:

Sample Reference	Analysis Required
BH51	
BH 64 01/11	FURANS + DIOXINS
BH 72	" "
BH66	" "
Lagoon	" "
BH84	" "
BH66	" "
- BH54 Broken	" "
- BH89 Broken	" "
- BH54 Broken	FURANS + DIOXINS
BH89	FURANS + DIOXINS
BH68	FURANS + DIOXINS + PCBs
- BH68 Broken	FURANS + DIOXINS
BH 11	FURANS + DIOXINS + PCBs
BH2	FURANS + DIOXINS
BH31	" "
BH41	" "
BH24	" "
BH74	" "

Relinquished by:	Print:	Date:
Accepted by:	Print:	Date:

Miscellaneous information:

1

LABORATORY SAMPLES CHAIN OF CUSTODY

Site: <i>Shanks Pentapool Golder Associates</i>	Job Number:
Project Engineer:	Sampling Date:
Laboratory: <i>Murchwood Scientific Services</i>	Order Number:

Sample Reference	Analysis Required
BH88 o.i.	
BH81	FIBRES + PARTICLES
BH75	" "
BH34	" "
BH10	" "
BH38	" "
BH28	" "
BH7	" "
BH46	" "
BH14	" "
BH23	" "
BH56 o.i.	" "
BH27	" "
BH48	" "
BH40	" "
BH17	" "
BH77 o.i.	" "
BH25	" "
BH5	" "

Relinquished by:	Print:	Date:
Accepted by:	Print:	Date:

Miscellaneous Information:

MODE = MEMORY TRANSMISSION

START=16-NOV 17:13

END=16-NOV 17:14

FILE NO.=228

STN NO.	COMM.	ONE-TOUCH/ ABBR NO.	STATION NAME/TEL NO.	PAGES	DURATION
001	OK	2	02380669127	003/003	00:01:04

-GOLDER ASSOCIATES UK LTD -

***** -GAUK MHD - ***** 01628 770699- *****

02380 669127

2

LABORATORY SAMPLES CHAIN OF CUSTODY

Site: <u>Shanks Portypool Golder Associates</u>	Job Number:
Project Engineer:	Sampling Date:
Laboratory: <u>Marchwood Scientific</u>	Order Number:

Sample Reference	Analysis Required
BH51	FURANS + DIOXINS
BH 64 oil	" "
BH 72	" "
BH66	" "
Lagoon	" "
BH24	" "
BH66	" "
- BH54 Broken	" "
- BH89 Broken	" "
- BH54 Broken	FURANS + DIOXINS
BH89	FURANS + DIOXINS
BH68	FURANS + DIOXINS + PCBs
- BH68 Broken	FURANS + DIOXINS
BH11	Furans, dioxins + PCBs
BH2	FURANS + DIOXINS
BH31	" "
BH41	" "
BH24	" "
BH74	" "

Relinquished by:	Print:	Date:
Accepted by:	Print:	Date:

Miscellaneous information:

3

LABORATORY SAMPLES CHAIN OF CUSTODY

Site: <u>Shanks Party Pool Golder Associates</u>	Job Number :
Project Engineer :	Sampling Date :
Laboratory: <u>Marchwood Scientific Services</u>	Order Number :

Sample Reference	Analysis Required
<u>BH30</u>	<u>FURANS + DIOXINS</u>
<u>BH4</u>	<u>FURANS + DIOXINS + PCBs</u>

Relinquished by :	Print :	Date :
Accepted by :	Print :	Date :

Miscellaneous information :