

THE WOODHORN GROUP

THE WOODHORN GROUP

Date: 23/9/2020

Page: 1

Dispatch Note

Bill/Sold To:

Blaze Construction Ltd
93 Leigh Road
Hampshire
Eastleigh
SO50 9DQ

Job Site/Ship To:

Blaze Construction Ltd
CALA HOMES SITE
CRESSWELL PARK
ROUNDSTONE LANE
ANGMERING

Quote No.	Job No.	Salesperson	Manager	Ref
42360	59554	-No Sales Employee-		609

DESCRIPTION	QTY / UNIT	UNIT PRICE	EXTENDED PRICE
-------------	------------	------------	----------------

30/9/2020

Container

8 Wheel Tipper

1.00 /

Product

Topsoil BS3882 (20MM)

18.10 / Tonnes

90.42

 Company Representative (signature)

Company Registration Number: 3629015

Company VAT Number: 816160744

WEIGHBRIDGE TICKET

Ticket No. DO684915
CONVEYANCE NOTE

WOODHORN GROUP Ltd

Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

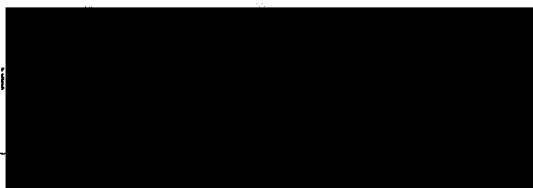
Waste Carrier Licence no: CBDU162145

Time In	08:47
Date in	30/9/2020
Time Out	08:58
Date Out	30/9/2020
Vehicle	YN13SXP
Carrier	TJ Transport Ltd
License No.	
Client	Blaze Construction Ltd
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:
Permit	
Zone	a8
Product	Topsoil BS3882 (20MM)
EWC Code	
1st Weight:	13,680.00 Kg NONE
2nd Weight:	31,160.00 Kg NONE
Net Weight:	17,480.00 Kg

By Signing this document I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011

Signature waste depositer

Signature waste receiver



THE WOODHORN GROUP

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Date: 23/9/2020

Page: 1

Dispatch Note

Bill/Sold To:

Blaze Construction Ltd
93 Leigh Road
Hampshire
Eastleigh
SO50 9DQ

Job Site/Ship To:

Blaze Construction Ltd
CALA HOMES SITE
CRESSWELL PARK
ROUNDSTONE LANE
ANGMERING

Quote No.	Job No.	Salesperson	Manager	Ref
42361	59555	-No Sales Employee-		609

DESCRIPTION	QTY / UNIT	UNIT PRICE	EXTENDED PRICE
-------------	------------	------------	----------------

30/9/2020

Container

8 Wheel Tipper

1.00 /

Product

Topsoil BS3682 (20MM)

17.48 / Tonnes

88.07

 Company Representative (signature)

Company Registration Number: 3629015

Company VAT Number: 816160744

WEIGHBRIDGE TICKET

Ticket No. DO684931
CONVEYANCE NOTE

WOODHORN GROUP Ltd

Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

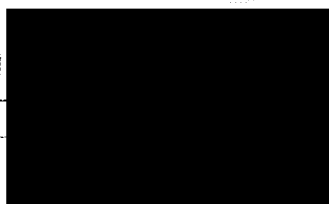
Waste Carrier Licence no: CBDU162145

Time In	10:27
Date In	30/9/2020
Time Out	10:37
Date Out	30/9/2020
Vehicle	HL19SVR
Carrier	TJ Transport Ltd
License No.	
Client	Blaze Construction Ltd
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:
Permit	
Zone	a9
Product	Topsoil BS3882 (20MM)
EWC Code	
1st Weight:	12,600.00 Kg NONE
2nd Weight:	30,480.00 Kg NONE
Net Weight:	17,880.00 Kg

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Signature waste depositer

Signature waste receiver



THE WOODHORN GROUP

THE WOODHORN GROUP

Date: 23/9/2020

Page: 1

Dispatch Note

Bill/Sold To:

Blaze Construction Ltd
93 Leigh Road
Hampshire
Eastleigh
SO50 9DQ

Job Site/Ship To:

Blaze Construction Ltd
CALA HOMES SITE
CRESSWELL PARK
ROUNDSTONE LANE
ANGMERING

Quote No.	Job No.	Salesperson	Manager	Ref
42362	59556	-No Sales Employee-		609

DESCRIPTION	QTY / UNIT	UNIT PRICE	EXTENDED PRICE
-------------	------------	------------	----------------

30/9/2020

Container

8 Wheel Tipper

1.00 /

Product

Topsoil BS3882 (20MM)

17.88 / Tonnes

89.59

 Company Representative (signature)

Company Registration Number: 3629015

Company VAT Number: 816160744

WEIGHBRIDGE TICKET

Ticket No. DO684935
CONVEYANCE NOTE

WOODHORN GROUP Ltd

Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

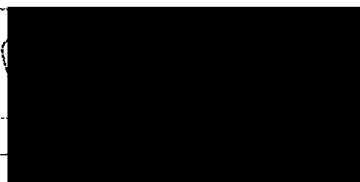
Waste Carrier Licence no: CBDU162145

Time In	10:47
Date In	30/9/2020
Time Out	10:58
Date Out	30/9/2020
Vehicle	YN13SXP
Carrier	TJ Transport Ltd
License No.	
Client	Blaze Construction Ltd
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:
Permit	
Zone	a9
Product	Topsoil BS3882 (20MM)
EWC Code	
1st Weight:	13,720.00 Kg NONE
2nd Weight:	31,420.00 Kg NONE
Net Weight:	17,700.00 Kg

By Signing this document I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011

Signature waste depositer

Signature waste receiver



THE WOODHORN GROUP

THE WOODHORN GROUP

Date: 23/9/2020

Page: 1

Dispatch Note

Bill/Sold To:

Blaze Construction Ltd
93 Leigh Road
Hampshire
Eastleigh
SO50 9DQ

Job Site/Ship To:

Blaze Construction Ltd
CALA HOMES SITE
CRESSWELL PARK
ROUNDSTONE LANE
ANGMERING

Quote No.	Job No.	Salesperson	Manager	Ref
42363	59557	-No Sales Employee-		609

DESCRIPTION	QTY / UNIT	UNIT PRICE	EXTENDED PRICE
-------------	------------	------------	----------------

30/9/2020

Container

8 Wheel Tipper

1.00 /

Product

Topsoil BS3882 (20MM)

17.70 / Tonnes

88.90

 Company Representative (signature)

Company Registration Number: 3629015

Company VAT Number: 816160744

WEIGHBRIDGE TICKET

Ticket No. DO684964
CONVEYANCE NOTE

WOODHORN GROUP Ltd

Tangmere Composting Facility
 City Fields Industrial Estate
 Tangmere
 West Sussex
 PO20 2FP
 EA Permit No:EPR/DB3703HG
 Company Reg No.3629015
 VAT No.816160744
 SIC Code: 38210
 Waste Carrier Licence no: CBDU162146

Time In	12:43
Date In	30/9/2020
Time Out	12:58
Date Out	30/9/2020
Vehicle	YN13SXP
Carrier	TJ Transport Ltd
License No.	
Client	Blaze Construction Ltd
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:
Permit	
Zone	a9
Product	Topsoli BS3882 (20MM)
EWG Code	
1st Weight:	13,680.00 Kg NONE
2nd Weight:	31,140.00 Kg NONE
Net Weight:	17,460.00 Kg

By Signing this document I confirm that I have
 fulfilled my duty to apply the waste hierarchy as
 required by Regulation 12 of the waste (England
 and Wales) Regulations 2011

Signature was

Signature was

THE WOODHORN GROUP

THE WOODHORN GROUP

Date: 23/9/2020

Page: 1

Dispatch Note

Bill/Sold To:

Blaze Construction Ltd
93 Leigh Road
Hampshire
Eastleigh
SO50 9DQ

Job Site/Ship To:

Blaze Construction Ltd
CALA HOMES SITE
CRESSWELL PARK
ROUNDSTONE LANE
ANGMERING

Quote No.	Job No.	Salesperson	Manager	Ref
42364	59558	-No Sales Employee-		609

DESCRIPTION	QTY / UNIT	UNIT PRICE	EXTENDED PRICE
-------------	------------	------------	----------------

30/9/2020

Container

8 Wheel Tipper

1.00 /

Product

Topsoil BS3882 (20MM)

17.46 / Tonnes

87.99

 Company Representative (signature)

Company Registration Number: 3629015

Company VAT Number: 816160744

WEIGHBRIDGE TICKET

Ticket No. DO684984
CONVEYANCE NOTE

WOODHORN GROUP Ltd
Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

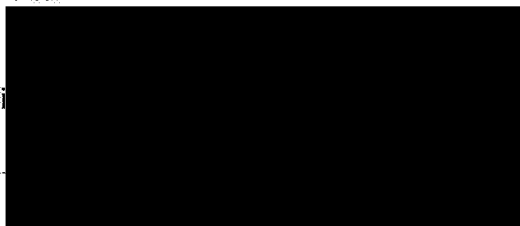
Waste Carrier Licence no: CBDU162145

Time In	14:23
Date In	30/9/2020
Time Out	14:31
Date Out	30/9/2020
Vehicle	YN13SXP
Carrier	TJ Transport Ltd
License No.	
Client	Blaze Construction Ltd
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:
Permit	
Zone	a9
Product	Topsoil BS3882 (20MM)
EWC Code	
1st Weight:	13,680.00 Kg NONE
2nd Weight:	31,260.00 Kg NONE
Net Weight:	17,580.00 Kg

By Signing this document I confirm that I have
fulfilled my duty to apply the waste hierarchy as
required by Regulation 12 of the waste (England
and Wales) Regulations 2011

Signature waste depositer

Signature waste receiver



THE WOODHORN GROUP

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Date: 23/9/2020

Page: 1

Dispatch Note

Bill/Sold To:

Blaze Construction Ltd
93 Leigh Road
Hampshire
Eastleigh
SO50 9DQ

Job Site/Ship To:

Blaze Construction Ltd
CALA HOMES SITE
CRESSWELL PARK
ROUNDSTONE LANE
ANGMERING

Quote No.	Job No.	Salesperson	Manager	Ref
42365	59559	-No Sales Employee-		609

DESCRIPTION	QTY / UNIT	UNIT PRICE	EXTENDED PRICE
-------------	------------	------------	----------------

30/9/2020

Container

8 Wheel Tipper

1.00 /

Product

Topsoil BS3882 (20MM)

17.58 / Tonnes

88.46

 Company Representative (signature)

Company Registration Number: 3629015

Company VAT Number: 816160744

WEIGHBRIDGE TICKET

Ticket No. DO692406

WOODHORN GROUP Ltd

Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

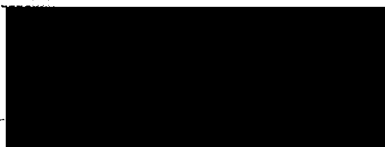
SIC Code: 38210

Waste Carrier Licence no: CBDU162145

Time In	13:44
Date In	26/1/2021
Time Out	13:59
Date Out	26/1/2021
Vehicle	NV15VOM
Carrier	Recycle Southern Limited
License No.	
Client	Blaze Construction Ltd
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:
Permit	
Zone	D4
Product	Topsoil BS3882 (20MM)
EWC Code	
1st Weight:	13,600.00 Kg NONE
2nd Weight:	31,080.00 Kg NONE
Net Weight:	17,480.00 Kg

Signature waste depositer

Signature waste receiver



WEIGHBRIDGE TICKET

Ticket No. DO692519

WOODHORN GROUP Ltd

Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

Waste Carrier Licence no: CBDU162145

Time In	10:43		
Date In	28/1/2021		
Time Out	10:51		
Date Out	28/1/2021		
Vehicle	NV15VOM		
Carrier	Recycle Southern Limited		
License No.			
Client	Blaze Construction Ltd		
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:		
Permit			
Zone	D2		
Product	Topsoil BS3882 (20MM)		
EWC Code			
1st Weight:	13,640.00	Kg	NONE
2nd Weight:	31,440.00	Kg	NONE
Net Weight:	17,800.00	Kg	

Signature waste depositer

Signature waste receiver

WEIGHBRIDGE TICKET

Ticket No. DO692377

WOODHORN GROUP Ltd

Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

Waste Carrier Licence no: CBDU162145

Time In	10:34		
Date In	26/1/2021		
Time Out	10:46		
Date Out	26/1/2021		
Vehicle	NV15VOM		
Carrier	Recycle Southern Limited		
License No.			
Client	Blaze Construction Ltd		
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:		
Permit			
Zone	D4		
Product	Topsoil BS3882 (20MM)		
EWG Code			
1st Weight:	13,640.00	Kg	NONE
2nd Weight:	31,720.00	Kg	NONE
Net Weight:	18,080.00	Kg	

Signature waste depositer

Signature waste receiver

WEIGHBRIDGE TICKET

Ticket No. DO692388

WOODHORN GROUP Ltd

Tangmere Composting Facility
City Fields Industrial Estate
Tangmere
West Sussex
PO20 2FP
EA Permit No:EPR/DB3703HG
Company Reg No.3629015
VAT No.816160744
SIC Code: 38210
Waste Carrier Licence no: CBDU162145

Time In	11:53		
Date In	26/1/2021		
Time Out	11:59		
Date Out	26/1/2021		
Vehicle	NV15VOM		
Carrier	Recycle Southern Limited		
License No.			
Client	Blaze Construction Ltd		
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:		
Permit			
Zone	D4		
Product	Topsoil BS3882 (20MM)		
EWC Code			
1st Weight:	13,620.00	Kg	NONE
2nd Weight:	31,180.00	Kg	NONE
Net Weight:	17,560.00	Kg	

Signature waste deposit

Signature waste receive

WEIGHBRIDGE TICKET

Ticket No. DO691873

WOODHORN GROUP Ltd

Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

Waste Carrier Licence no: CBDU162145

Time In	09:08
Date In	15/1/2021
Time Out	09:18
Date Out	15/1/2021
Vehicle	OY16UJP
Carrier	Recycle Southern Limited
License No.	
Client	Blaze Construction Ltd
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:
Permit	
Zone	D4
Product	Topsoil BS3882 (20MM)
EWC Code	
1st Weight:	14,660.00 Kg NONE
2nd Weight:	32,120.00 Kg NONE
Net Weight:	17,460.00 Kg

Signature waste depositer

Signature waste receiver



WEIGHBRIDGE TICKET

Ticket No. DO691869

WOODHORN GROUP Ltd

Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

Waste Carrier Licence no: CBDU162145

Time In	08:19		
Date In	15/1/2021		
Time Out	08:31		
Date Out	15/1/2021		
Vehicle	NV15VOM		
Carrier	Recycle Southern Limited		
License No.			
Client	Blaze Construction Ltd		
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:		
Permit			
Zone	D4		
Product	Topsoil BS3882 (20MM)		
EWC Code			
1st Weight:	13,360.00	Kg	NONE
2nd Weight:	31,640.00	Kg	NONE
Net Weight:	18,280.00	Kg	

Signature waste depositer

Signature waste receiver

WEIGHBRIDGE TICKET

Ticket No. DO692451

WOODHORN GROUP Ltd

Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

Waste Carrier Licence no: CBDU162145

Time In	11:31
Date In	27/1/2021
Time Out	11:37
Date Out	27/1/2021
Vehicle	OY16UJP
Carrier	Recycle Southern Limited
License No.	
Client	Blaze Construction Ltd
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:
Permit	
Zone	D2
Product	Topsoil BS3882 (20MM)
EWC Code	
1st Weight:	14,580.00 Kg NONE
2nd Weight:	31,820.00 Kg NONE
Net Weight:	17,240.00 Kg

Signature waste depositor

Signature waste receiver

WEIGHBRIDGE TICKET

Ticket No. DO688989
CONVEYANCE NOTE

WOODHORN GROUP Ltd

Tangmere Composting Facility

City Fields Industrial Estate

Tangmere

West Sussex

PO20 2FP

EA Permit No:EPR/DB3703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

Waste Carrier Licence no: CBDU162145

Time In	09:44		
Date In	19/11/2020		
Time Out	09:54		
Date Out	19/11/2020		
Vehicle	V9TJT		
Carrier	TJ Transport Ltd		
License No.			
Client	Blaze Construction Ltd		
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:		
Permit			
Zone	c5		
Product	Topsoil BS3882 (20MM)		
EWC Code			
1st Weight:	12,900.00	Kg	NONE
2nd Weight:	31,460.00	Kg	NONE
Net Weight:	18,560.00	Kg	

By Signing this document I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011

Signature waste depositor

Signature waste receiver

WEIGHBRIDGE TICKET

Ticket No. DO689014
CONVEYANCE NOTE

WOODHORN GROUP Ltd

Tangmere Composting Facility
City Fields Industrial Estate
Tangmere
West Sussex
PO20 2FP
EA Permit No:EPR/DB3703HG
Company Reg No.3629015
VAT No.816160744
SIC Code: 38210
Waste Carrier Licence no: CBDU162145

Time In	11:57
Date In	19/11/2020
Time Out	12:08
Date Out	19/11/2020
Vehicle	V9TJT
Carrier	TJ Transport Ltd
License No.	
Client	Blaze Construction Ltd
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:
Permit	
Zone	c5
Product	Topsoil BS3882 (20MM)
EWC Code	
1st Weight:	12,900.00 Kg NONE
2nd Weight:	31,360.00 Kg NONE
Net Weight:	18,460.00 Kg

By Signing this document I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011

Signature waste depositer

Signature waste receiver

WEIGHBRIDGE TICKET

Ticket No. DO689601
CONVEYANCE NOTE

WOODHORN GROUP Ltd

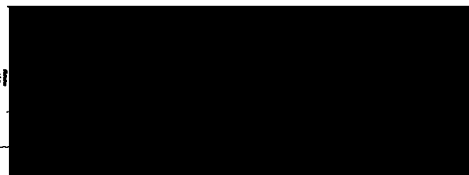
Tangmere Composting Facility
City Fields Industrial Estate
Tangmere
West Sussex
PO20 2FP
EA Permit No:EPR/DB3703HG
Company Reg No.3629015
VAT No.816160744
SIC Code: 38210
Waste Carrier Licence no: CBDU162145

Time In	08:14		
Date In	27/11/2020		
Time Out	08:34		
Date Out	27/11/2020		
Vehicle	NV15VOM		
Carrier	Recycle Southern Ltd		
License No.			
Client	Blaze Construction Ltd		
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:		
Permit			
Zone	C9		
Product	Topsoil BS3882 (20MM)		
EWC Code			
1st Weight:	13,300.00	Kg	NONE
2nd Weight:	31,840.00	Kg	NONE
Net Weight:	18,540.00	Kg	

By Signing this document I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011

Signature waste depositer

Signature waste receiver



WEIGHBRIDGE TICKET

Ticket No. DO689607
CONVEYANCE NOTE

WOODHORN GROUP Ltd

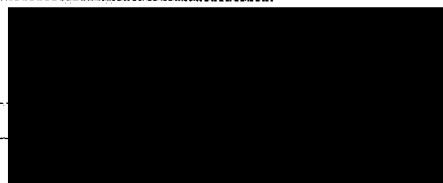
Tangmere Composting Facility
City Fields Industrial Estate
Tangmere
West Sussex
PO20 2FP
EA Permit No:EPR/DB3703HG
Company Reg No.3629015
VAT No.816160744
SIC Code: 38210
Waste Carrier Licence no: CBDU162145

Time In	08:50		
Date In	27/11/2020		
Time Out	09:05		
Date Out	27/11/2020		
Vehicle	NV15VOT		
Carrier	Recycle Southern Limited		
License No.			
Client	Blaze Construction Ltd		
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:		
Permit			
Zone	C9		
Product	Topsoil BS3882 (20MM)		
EWC Code			
1st Weight:	14,060.00	Kg	NONE
2nd Weight:	31,660.00	Kg	NONE
Net Weight:	17,600.00	Kg	

By Signing this document I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011

Signature waste depositer

Signature waste receiver



WEIGHBRIDGE TICKET

Ticket No. DO689731
CONVEYANCE NOTE

WOODHORN GROUP Ltd

Tangmere Composting Facility
City Fields Industrial Estate
Tangmere
West Sussex
PO20 2FP
EA Permit No:EPR/DB3703HG
Company Reg No.3629015
VAT No.816160744
SIC Code: 38210
Waste Carrier Licence no: CBDU162145

Time In	12:10		
Date In	30/11/2020		
Time Out	12:24		
Date Out	30/11/2020		
Vehicle	V22TJT		
Carrier	TJ Transport Ltd		
License No.			
Client	Blaze Construction Ltd		
Address	CRESSWELL PARK, ROUNDSTONE LANE, ANGMERING, , SIC Code:		
Permit			
Zone	c9		
Product	Topsoil BS3882 (20MM)		
EWC Code			
1st Weight:	13,080.00	Kg	NONE
2nd Weight:	31,040.00	Kg	NONE
Net Weight:	17,960.00	Kg	

By Signing this document I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011

Signature waste depositer

Signature waste receiver

WEIGHBRIDGE TICKET

Ticket No. DO667454
CONVEYANCE NOTE

IE WOODHORN GROUP

Date: 18/3/2020

Page: 1

Dispatch Note

WOODHORN GROUP Ltd

Tangmere Composting Facility
City Fields Industrial Estate
TangmereWest Sussex
PO20 2FP

EA Permit No: EPR/DB3703HG

Company Reg No: 3629015

VAT No: 816160744

SIC Code: 38210

Waste Carrier Licence no: CBDU162145

Time In 08:33

Date In 23/3/2020

Time Out 08:45

Date Out 23/3/2020

Vehicle E12TJT

Carrier TJ Transport Ltd

License No.

Client Blaze Construction Ltd

Address CRESSWELL PARK,
ROUNDSTONE LANE,
ANGMERING, SIC Code:

Permit

Zone

Product Topsoil BS3682 (20MM)

EWC Code

1st Weight: 13,090.00 Kg NONE

2nd Weight: 31,980.00 Kg NONE

Net Weight: 18,900.00 Kg

Job Site/Ship To:

Blaze Construction Ltd
CALA HOMES SITE
CRESSWELL PARK
ROUNDSTONE LANE
ANGMERING

Job No.

53227

Salesperson

-No Sales Employee-

Manager

Ref

609

QTY / UNIT

UNIT PRICE

EXTENDED PRICE

1.00 /

19.00 / Tonnes

93.84

By Signing this document I confirm that I have
fulfilled my duty to apply the waste hierarchy as
required by Regulation 12 of the waste (England
and Wales) Regulations 2011

Signature waste depositer

Signature waste receiver

Company Registration Number: 3629015

Company VAT Number: 816160

667477

WEIGHBRIDGE TICKET

Ticket No. DO667477
CONVEYANCE NOTE

WOODHORN GROUP Ltd

Ringiers Composting Facility

City Fields Industrial Estate

Ringiers

West Sussex

PO20 0PP

EA Permit No: EPR/D55102H0

Company Reg No. 2529015

VAT No. 915155744

SIC Code: 88010

Waste Carrier Licence No. GB0018214E

Time In 10:15

Date In 25/03/2020

Time Out 10:25

Date Out 25/03/2020

Vehicle E12TJUT

Carrier TJ Transport Ltd

License No.

Client Blaze Construction Ltd

Address CRESSWELL PARK,
ROUNDESTONE LANE,
ANDRIMING, SIC Code:

Permit

Zone

Product Topsoil BS3883 (2019)

SIC Code

1st Weight: 15,565.00 Kg NONE

2nd Weight: 21,540.00 Kg NONE

Net Weight: 15,480.00 Kg

By Signing this document I confirm that I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the waste (England and Wales) Regulations 2011

Signature waste depositor

THE WOODHORN GROUP

Date: 15/03/2020

Page: 1

Dispatch Note

Billed to:

Blaze Construction Ltd
83 Leigh Road
Hampshire
Eastleigh
SO50 5DZ

Job site/ship to:

Blaze Construction Ltd
CALA HOMES SITE
CRESSWELL PARK
ROUNDESTONE LANE
ANDRIMING

Quote No.	Job No.	Salesperson	Manager	Ref
35103	55225	No Sales Employee		808

DESCRIPTION	QTY / UNIT	UNIT PRICE	EXTENDED PRICE
15/03/2020			
Container			
8 wheel Tipper	1.00		
Product			
Topsoil BS3883 (2019)	15.48 / Tonnes		

WEIGHBRIDGE TICKET

IE WOODHORN GROUP

Date: 18/3/2020

Ticket No. DO667505

Page: 1

CONVEYANCE NOTE

Dispatch Note

WOODHORN GROUP Ltd

Langmead Composting Facility
City Fields Industrial Estate
Tingmere

West Sussex

PO20 2FP

EA Permit No EPR/D83703HG

Company Reg No.3629015

VAT No.816160744

SIC Code: 38210

Waste Carrier Licence no: CBDU162145

Time in 12:05

Date in 23/3/2020

Time out 12:18

Date out 23/3/2020

Vehicle E12TJT

Carrier TJ Transport Ltd

License No.

Client Blaze Construction Ltd

Address CRESSWELL PARK,
ROUNDSTONE LANE,
ANGMERING, ,SIC Code:

Permit

Zone

Product Topsoil BS3682 (20MM)

EWC Code

1st Weight: 13,080.00 Kg NONE

2nd Weight: 30,980.00 Kg NONE

Net Weight: 17,920.00 Kg

Job Site/Ship To:

Blaze Construction Ltd
CALA HOMES SITE
CRESSWELL PARK
ROUNDSTONE LANE
ANGMERING

No.	Salesperson	Manager	Ref
3230	-No Sales Employee-		609

QTY / UNIT	UNIT PRICE	EXTENDED PRICE
------------	------------	----------------

1.00 /

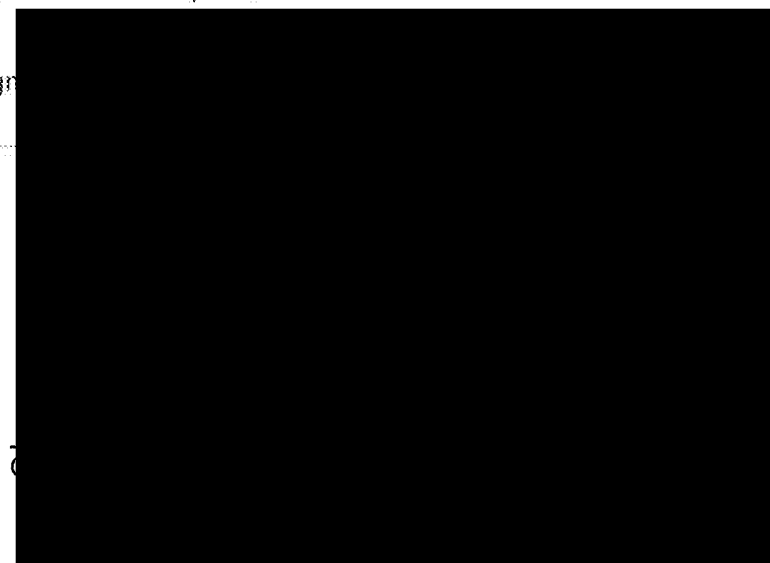
19.00 / Tonnes

93.84

By Signing this document I confirm that I have
fulfilled my duty to apply the waste hierarchy as
required by Regulation 12 of the waste (England
and Wales) Regulations 2011

Signature waste depositor

Sign



Company Registration Number: 3629015

Company VAT Number: 816160744

WEIGHBRIDGE TICKET

E WOODHORN GROUP

Date: 18/3/2020

Ticket No. DO667518
CONVEYANCE NOTE

Page: 1

Dispatch Note

WOODHORN GROUP Ltd

Tangmere Composting Facility
City Fields Industrial Estate
Tangmere
West Sussex
PO20 2FP
EA Permit No: EPR/DB3703HG
Company Reg No: 3629015
VAT No: 816160744
SIC Code: 38210
Waste Carrier Licence no: CBDU162145

Time In: 14:07
Date In: 23/3/2020
Time Out: 14:19
Date Out: 23/3/2020
Vehicle: E12TJT
Carrier: TJ Transport
License No:
Client: Blaze Construction Ltd
Address: ... Eastleigh, SO50 9DQ, SIC
Code:

Permit
Zone
Product: Topsoil BS3882 (20MM)
EWC Code
1st Weight: 13,020.00 Kg NONE
2nd Weight: 31,020.00 Kg NONE
Net Weight: 18,000.00 Kg

Job Site/Ship To:

Blaze Construction Ltd
CALA HOMES SITE
CRESSWELL PARK
ROUNDSTONE LANE
ANGMERING

No.	Salesperson	Manager	Ref
30	-No Sales Employee-		609

QTY / UNIT	UNIT PRICE	EXTENDED PRICE
------------	------------	----------------

1.00 /

19.00 / Tonnes

93.84

By Signing this document I confirm that I have
fulfilled my duty to apply the waste hierarchy as
required by Regulation 12 of the waste (England
and Wales) Regulations 2011

Signature waste depositer

SI

Co

Company Registration Number: 3629015

Company VAT Number: 816160744

APPENDIX E

LABORATORY CERTIFICATES

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 18/10912
Issue Number: 1

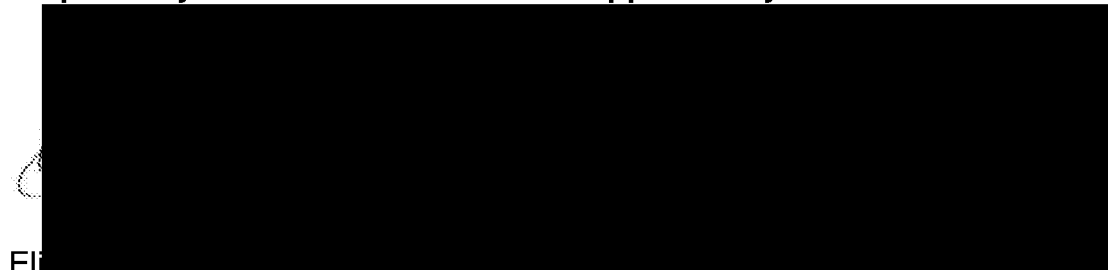
Date: 15 January, 2019

Client: RSK Environment Ltd Southampton
Unit 26
Basepoint Abbey Enterprise Centre
Premier Way
Romsey,
Hampshire
UK
SO51 9AQ

Project Manager: Josh Laite; All RSK Southampton
Project Name: Angmering
Project Ref: 305021
Order No: N/A
Date Samples Received: 20/12/18
Date Instructions Received: 24/12/18
Date Analysis Completed: 15/01/19

Prepared by:

Approved by:



Eliona Harris
Admin Assistant

Sam Jackson
Analytical Consultant

Envirolab Job Number: 18/10912

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	18/10912/1	18/10912/2	18/10912/3	18/10912/4	18/10912/5	18/10912/6	18/10912/7	18/10912/8	Units	Method ref
Client Sample No										
Client Sample ID	HP1	HP2	HP2	HP3	HP4	HP5	HP6	HP8		
Depth to Top	0.40	0.15	0.40	0.40	0.40	0.15	0.40	0.40		
Depth To Bottom										
Date Sampled	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	6	6AE	6A	6A	5A	4AE	5A	5		
% Stones >10mm _A	<0.1	5.9	10.9	6.8	15.4	8.5	25.0	<0.1	% w/w	A-T-044
pH _D ^{M#}	7.95	7.93	8.20	8.01	8.48	7.86	7.97	7.85	pH	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.05	<0.01	0.03	0.03	0.10	0.25	0.08	0.72	g/l	A-T-025s
Sulphate (acid soluble) _D ^{M#}	250	300	220	220	540	610	260	1600	mg/kg	A-T-028s
Arsenic _D ^{M#}	<1	<1	2	<1	<1	<1	2	1	mg/kg	A-T-024s
Cadmium _D ^{M#}	0.8	<0.5	0.5	0.8	0.5	<0.5	0.8	0.5	mg/kg	A-T-024s
Copper _D ^{M#}	13	20	9	12	17	17	11	19	mg/kg	A-T-024s
Chromium _D ^{M#}	30	24	16	27	27	25	24	28	mg/kg	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-040s
Lead _D ^{M#}	23	22	9	16	29	20	10	75	mg/kg	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	mg/kg	A-T-024s
Nickel _D ^{M#}	26	23	16	25	21	23	22	20	mg/kg	A-T-024s
Selenium _D [#]	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-024s
Zinc _D ^{M#}	57	58	37	69	82	67	45	107	mg/kg	A-T-024s

Envirolab Job Number: 18/10912

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	18/10912/1	18/10912/2	18/10912/3	18/10912/4	18/10912/5	18/10912/6	18/10912/7	18/10912/8	Units	Method ref
Client Sample No										
Client Sample ID	HP1	HP2	HP2	HP3	HP4	HP5	HP6	HP8		
Depth to Top	0.40	0.15	0.40	0.40	0.40	0.15	0.40	0.40		
Depth To Bottom										
Date Sampled	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	6	6AE	6A	6A	5A	4AE	5A	5		
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD		A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Envirolab Job Number: 18/10912

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	18/10912/1	18/10912/2	18/10912/3	18/10912/4	18/10912/5	18/10912/6	18/10912/7	18/10912/8	Units	Method ref
Client Sample No										
Client Sample ID	HP1	HP2	HP2	HP3	HP4	HP5	HP6	HP8		
Depth to Top	0.40	0.15	0.40	0.40	0.40	0.15	0.40	0.40		
Depth To Bottom										
Date Sampled	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	6	6AE	6A	6A	5A	4AE	5A	5		
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	mg/kg	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	mg/kg	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	0.05	<0.04	<0.04	0.15	mg/kg	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	0.06	<0.04	<0.04	0.15	mg/kg	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	0.06	<0.05	<0.05	0.15	mg/kg	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	mg/kg	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	0.08	mg/kg	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06	<0.06	0.09	0.08	<0.06	0.24	mg/kg	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08	<0.08	0.10	<0.08	<0.08	0.35	mg/kg	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	0.05	0.05	<0.03	0.10	mg/kg	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	0.23	mg/kg	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	0.11	<0.07	<0.07	0.33	mg/kg	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08	<0.08	0.57	0.13	<0.08	1.93	mg/kg	A-T-019s

Envirolab Job Number: 18/10912

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	18/10912/1	18/10912/2	18/10912/3	18/10912/4	18/10912/5	18/10912/6	18/10912/7	18/10912/8	Units	Method ref
Client Sample No										
Client Sample ID	HP1	HP2	HP2	HP3	HP4	HP5	HP6	HP8		
Depth to Top	0.40	0.15	0.40	0.40	0.40	0.15	0.40	0.40		
Depth To Bottom										
Date Sampled	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18	18-Dec-18		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	6	6AE	6A	6A	5A	4AE	5A	5		
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Ali >C8-C10 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	1	<1	<1	4	1	<1	<1	mg/kg	A-T-055s
Ali >C21-C35 _A	3	12	<1	2	8	12	<1	1	mg/kg	A-T-055s
Total Aliphatics _A	3	13	<1	2	11	13	<1	1	mg/kg	A-T-055s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C8-C10 _A ^{M#}	<1	<1	<1	<1	4	<1	<1	<1	mg/kg	A-T-055s
Aro >C10-C12 _A ^{M#}	<1	1	<1	<1	4	1	<1	<1	mg/kg	A-T-055s
Aro >C12-C16 _A	1	3	<1	1	2	3	<1	1	mg/kg	A-T-055s
Aro >C16-C21 _A ^{M#}	1	4	<1	1	4	4	<1	2	mg/kg	A-T-055s
Aro >C21-C35 _A ^{M#}	18	111	5	12	12	104	<1	10	mg/kg	A-T-055s
Total Aromatics _A	21	119	5	16	26	112	<1	15	mg/kg	A-T-055s
TPH (Ali & Aro >C5-C35) _A	23	132	5	17	36	125	<1	16	mg/kg	A-T-055s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s

Envirolab Job Number: 18/10912

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	18/10912/9	18/10912/10	18/10912/11	18/10912/12	18/10912/13	18/10912/14	18/10912/15	18/10912/16	Units	Method ref
Client Sample No										
Client Sample ID	HP9	HP10	HP11	HP12	HP13	HP14	HP14	HP16		
Depth to Top	0.40	0.40	0.20	0.60	0.60	0.20	0.60	0.60		
Depth To Bottom										
Date Sampled	18-Dec-18	18-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	5A	5A	4AE	4A	4A	4AE	6AE	4A		
% Stones >10mm _A	16.8	24.1	<0.1	33.5	24.4	<0.1	14.1	10.7	% w/w	A-T-044
pH _D ^{M#}	8.26	8.28	7.90	8.05	8.12	8.08	8.14	8.21	pH	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.02	0.02	0.01	0.02	0.02	<0.01	0.03	0.03	g/l	A-T-026s
Sulphate (acid soluble) _D ^{M#}	<200	<200	360	<200	<200	290	240	<200	mg/kg	A-T-028s
Arsenic _D ^{M#}	<1	2	3	1	2	<1	<1	3	mg/kg	A-T-024s
Cadmium _D ^{M#}	1.0	0.5	1.1	<0.5	<0.5	<0.5	<0.5	<0.5	mg/kg	A-T-024s
Copper _D ^{M#}	8	5	11	7	7	19	9	9	mg/kg	A-T-024s
Chromium _D ^{M#}	29	17	30	15	16	27	20	16	mg/kg	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-040s
Lead _D ^{M#}	12	6	15	8	8	26	12	10	mg/kg	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	mg/kg	A-T-024s
Nickel _D ^{M#}	22	15	28	12	13	24	16	14	mg/kg	A-T-024s
Selenium _D [#]	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-024s
Zinc _D ^{M#}	106	30	95	31	33	58	45	46	mg/kg	A-T-024s

Envirolab Job Number: 18/10912

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	18/10912/9	18/10912/10	18/10912/11	18/10912/12	18/10912/13	18/10912/14	18/10912/15	18/10912/16	Units	Method ref
Client Sample No										
Client Sample ID	HP9	HP10	HP11	HP12	HP13	HP14	HP14	HP16		
Depth to Top	0.40	0.40	0.20	0.60	0.60	0.20	0.60	0.60		
Depth To Bottom										
Date Sampled	18-Dec-18	18-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	5A	5A	4AE	4A	4A	4AE	6AE	4A		
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD	NAD	NAD	NAD	NAD	NAD		A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Envirolab Job Number: 18/10912

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	18/10912/9	18/10912/10	18/10912/11	18/10912/12	18/10912/13	18/10912/14	18/10912/15	18/10912/16	Units	Method ref
Client Sample No										
Client Sample ID	HP9	HP10	HP11	HP12	HP13	HP14	HP14	HP16		
Depth to Top	0.40	0.40	0.20	0.60	0.60	0.20	0.60	0.60		
Depth To Bottom										
Date Sampled	18-Dec-18	18-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	5A	5A	4AE	4A	4A	4AE	6AE	4A		
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	mg/kg	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	mg/kg	A-T-019s

Envirolab Job Number: 18/10912

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	18/10912/9	18/10912/10	18/10912/11	18/10912/12	18/10912/13	18/10912/14	18/10912/15	18/10912/16	Units	Method ref
Client Sample No										
Client Sample ID	HP9	HP10	HP11	HP12	HP13	HP14	HP14	HP16		
Depth to Top	0.40	0.40	0.20	0.60	0.60	0.20	0.60	0.60		
Depth To Bottom										
Date Sampled	18-Dec-18	18-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18	20-Dec-18		
Sample Type	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil		
Sample Matrix Code	5A	5A	4AE	4A	4A	4AE	6AE	4A		
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Ali >C8-C10 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	5	25	3	2	mg/kg	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	1	<1	<1	mg/kg	A-T-055s
Ali >C21-C35 _A	<1	<1	17	<1	<1	<1	<1	<1	mg/kg	A-T-055s
Total Aliphatics _A	<1	<1	17	<1	5	28	3	2	mg/kg	A-T-055s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
Aro >C8-C10 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	<1	mg/kg	A-T-055s
Aro >C10-C12 _A ^{M#}	<1	<1	1	<1	<1	3	<1	<1	mg/kg	A-T-055s
Aro >C12-C16 _A	<1	<1	4	2	17	75	9	6	mg/kg	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	6	<1	3	10	2	1	mg/kg	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	173	<1	<1	<1	<1	<1	mg/kg	A-T-055s
Total Aromatics _A	<1	<1	184	2	20	88	10	8	mg/kg	A-T-055s
TPH (Ali & Aro >C5-C35) _A	<1	<1	201	2	26	117	13	10	mg/kg	A-T-055s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	A-T-022s

REPORT NOTES

General:

This report shall not be reproduced, except in full, without written approval from Envirolab.

All samples contained within this report, and any received with the same delivery, will be disposed of one month after the date of this report.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

FINAL ANALYTICAL TEST REPORT

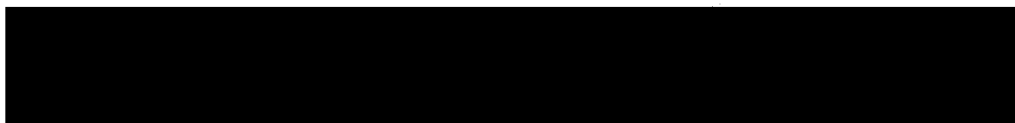
Envirolab Job Number: 21/02886
Issue Number: 1
Date: 06 April, 2021

Client: RSK Environment Ltd Romsey
Unit 18 Basepoint Abbey Enterprise Centre
Premier Way
Romsey
Hampshire
SO51 9AQ

Project Manager: Cathy Cussell/Emily Chissell
Project Name: Angmering
Project Ref: 305021
Order No: N/A
Date Samples Received: 19/03/21
Date Instructions Received: 19/03/21
Date Analysis Completed: 06/04/21

Prepared by:

Approved by:



Melanie Marshall
Laboratory Coordinator

Georgia King
Finance and Admin Assistant

Envirolab Job Number: 21/02886

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	21/02886/1	21/02886/2	21/02886/3	21/02886/4	21/02886/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	HP17	HP18	HP19	HP20	HP21					
Depth to Top	0.10	0.40	0.10	0.10	0.50					
Depth To Bottom	0.20	0.50	0.20	0.20	0.60					
Date Sampled	17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21					
Sample Type	Soil	Soil	Soil	Soil	Soil					
Sample Matrix Code	6AE	6A	2AE	6AE	6AE					
% Stones >10mm _A	2.1	30.4	<0.1	3.8	20.7			% w/w	0.1	A-T-044
pH _D ^{M#}	8.22	8.50	8.04	8.16	8.21			pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.04	0.06	0.02	0.06	0.07			g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	390	<200	280	480	330			mg/kg	200	A-T-028s
Arsenic _D ^{M#}	3	3	2	4	3			mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.6	0.8	0.5	0.7	0.6			mg/kg	0.5	A-T-024s
Copper _D ^{M#}	20	8	15	15	10			mg/kg	1	A-T-024s
Chromium _D ^{M#}	23	17	21	19	14			mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1			mg/kg	1	A-T-040s
Lead _D ^{M#}	62	8	24	18	12			mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17			mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	21	14	17	18	13			mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-024s
Zinc _D ^{M#}	59	34	45	50	35			mg/kg	5	A-T-024s

Envirolab Job Number: 21/02886

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	21/02886/1	21/02886/2	21/02886/3	21/02886/4	21/02886/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	HP17	HP18	HP19	HP20	HP21					
Depth to Top	0.10	0.40	0.10	0.10	0.50					
Depth To Bottom	0.20	0.50	0.20	0.20	0.60					
Date Sampled	17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21					
Sample Type	Soil	Soil	Soil	Soil	Soil					
Sample Matrix Code	6AE	6A	2AE	6AE	6AE					
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD	NAD	NAD					A-T-045
Asbestos ACM - Suitable for Water Absorption Test? _D	N/A	N/A	N/A	N/A	N/A					A-T-045

Envirolab Job Number: 21/02886

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	21/02886/1	21/02886/2	21/02886/3	21/02886/4	21/02886/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	HP17	HP18	HP19	HP20	HP21					
Depth to Top	0.10	0.40	0.10	0.10	0.50					
Depth To Bottom	0.20	0.50	0.20	0.20	0.60					
Date Sampled	17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21					
Sample Type	Soil	Soil	Soil	Soil	Soil					
Sample Matrix Code	6AE	6A	2AE	6AE	6AE					
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02	<0.02			mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04			mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	0.05			mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	0.06			mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05			mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07			mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06	<0.06	<0.06			mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04			mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08	<0.08	<0.08			mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	0.04			mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03			mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03			mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07			mg/kg	0.07	A-T-019s
Total PAH-16MS_A^{M#}	<0.08	<0.08	<0.08	<0.08	0.15			mg/kg	0.01	A-T-019s

Envirolab Job Number: 21/02886

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	21/02886/1	21/02886/2	21/02886/3	21/02886/4	21/02886/5			Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	HP17	HP18	HP19	HP20	HP21					
Depth to Top	0.10	0.40	0.10	0.10	0.50					
Depth To Bottom	0.20	0.50	0.20	0.20	0.60					
Date Sampled	17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21					
Sample Type	Soil	Soil	Soil	Soil	Soil					
Sample Matrix Code	6AE	6A	2AE	6AE	6AE					
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	3	<1	3	2	<1			mg/kg	1	A-T-055s
Ali >C21-C35 _A ^{M#}	41	3	57	42	7			mg/kg	1	A-T-055s
Total Aliphatics _A	44	3	60	45	7			mg/kg	1	A-T-055s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Aro >C10-C12 _A	<1	<1	<1	<1	<1			mg/kg	1	A-T-055s
Aro >C12-C16 _A	4	<1	3	2	<1			mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	4	2	7	5	<1			mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	80	7	117	65	15			mg/kg	1	A-T-055s
Total Aromatics _A	89	9	127	72	15			mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35) _A	133	12	187	117	23			mg/kg	1	A-T-055s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01			mg/kg	0.01	A-T-022s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed.

Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report



Client: RSK Environment Ltd Romsey, Unit 18 Basepoint Abbey Enterprise Centre,
Premier Way, Romsey, Hampshire, SO51 9AQ

Project No: 21/02886

Date Received: 19/03/2021 (am)

Project: Angmering

Cool Box Temperatures (°C): 6.9

Clients Project No: 305021

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 19/09511
Issue Number: 1

Date: 23 October, 2019

Client: RSK Environment Ltd Southampton
Unit 26
Basepoint Abbey Enterprise Centre
Premier Way
Romsey,
Hampshire
UK
SO51 9AQ

Project Manager: Josh Laite; All RSK Southampton
Project Name: Angmering
Project Ref: 305021
Order No: N/A
Date Samples Received: 10/10/19
Date Instructions Received: 10/10/19
Date Analysis Completed: 22/10/19

Prepared by:

Approved by:



Melanie Marshall
Laboratory Coordinator

Danielle Brierley
Client Manager

Envirolab Job Number: 19/09511

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/09511/1	19/09511/2	19/09511/3	19/09511/4	19/09511/5	19/09511/6	19/09511/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	P2B-NE Bund HP1	P2B-NE Bund HP2	P2B-NE Bund HP3	P2B-NE Bund HP4	P2B-NE Bund HP5	P2B-NE Bund HP6	P2B-NE Bund HP7			
Depth to Top	0.30	0.10	0.40	0.60	0.50	0.35	0.50			
Depth To Bottom										
Date Sampled	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	5AE	5AE	5A	5A	4A	5AE			
% Stones >10mm _A	9.4	2.8	3.7	1.0	7.6	3.6	<0.1	% w/w	0.1	A-T-044
pH _D [#]	8.31	8.13	7.82	7.98	8.17	8.18	8.10	pH	0.01	A-T-031a
Sulphate (water sol 2:1) _D ^{M#}	0.14	0.06	<0.01	0.04	0.04	0.03	0.04	g/l	0.01	A-T-026a
Sulphate (acid soluble) _D ^{M#}	640	360	260	300	290	270	290	mg/kg	200	A-T-028a
Arsenic _D ^{M#}	4	3	4	5	4	5	4	mg/kg	1	A-T-024a
Cadmium _D ^{M#}	<0.5	3.3	0.6	0.6	0.6	0.6	0.6	mg/kg	0.5	A-T-024a
Copper _D ^{M#}	7	11	14	11	12	25	12	mg/kg	1	A-T-024a
Chromium _D ^{M#}	13	19	26	23	22	20	25	mg/kg	1	A-T-024a
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040a
Lead _D ^{M#}	11	15	25	18	20	21	21	mg/kg	1	A-T-024a
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024a
Nickel _D ^{M#}	12	17	18	18	16	15	18	mg/kg	1	A-T-024a
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-024a
Zinc _D ^{M#}	27	41	52	51	49	52	49	mg/kg	5	A-T-024a

Envirolab Job Number: 19/09511

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/09511/1	19/09511/2	19/09511/3	19/09511/4	19/09511/5	19/09511/6	19/09511/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	P2B-NE Bund HP1	P2B-NE Bund HP2	P2B-NE Bund HP3	P2B-NE Bund HP4	P2B-NE Bund HP5	P2B-NE Bund HP6	P2B-NE Bund HP7			
Depth to Top	0.30	0.10	0.40	0.60	0.50	0.35	0.50			
Depth To Bottom										
Date Sampled	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	5AE	5AE	5A	5A	4A	5AE			
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test ⁰	N/A	N/A	N/A	N/A	N/A	N/A	N/A			A-T-045

Envirolab Job Number: 19/09511

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/09511/1	19/09511/2	19/09511/3	19/09511/4	19/09511/5	19/09511/6	19/09511/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	P2B-NE Bund HP1	P2B-NE Bund HP2	P2B-NE Bund HP3	P2B-NE Bund HP4	P2B-NE Bund HP5	P2B-NE Bund HP6	P2B-NE Bund HP7			
Depth to Top	0.30	0.10	0.40	0.60	0.50	0.35	0.50			
Depth To Bottom										
Date Sampled	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	5AE	5AE	5A	5A	4A	5AE			
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.06	0.05	<0.04	<0.04	0.07	0.08	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.05	<0.04	<0.04	<0.04	0.06	0.08	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.07	0.07	<0.05	<0.05	0.09	0.11	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.06	0.07	<0.06	<0.06	0.07	0.09	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.12	0.14	<0.08	<0.08	0.12	0.11	<0.08	mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.04	<0.03	<0.03	<0.03	0.05	0.06	<0.03	mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	0.10	0.04	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.10	0.12	<0.07	<0.07	0.10	0.11	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	0.60	0.49	<0.08	<0.08	0.56	0.64	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/09511

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/09511/1	19/09511/2	19/09511/3	19/09511/4	19/09511/5	19/09511/6	19/09511/7	Units	Limit of Detection	Method ref
Client Sample No										
Client Sample ID	P2B-NE Bund HP1	P2B-NE Bund HP2	P2B-NE Bund HP3	P2B-NE Bund HP4	P2B-NE Bund HP5	P2B-NE Bund HP6	P2B-NE Bund HP7			
Depth to Top	0.30	0.10	0.40	0.60	0.50	0.35	0.50			
Depth To Bottom										
Date Sampled	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19	08-Oct-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	5AE	5AE	5A	5A	4A	5AE			
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35 _A	4	14	<1	2	<1	<1	<1	mg/kg	1	A-T-055s
Total Aliphatics _A	4	15	<1	2	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	3	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	6	60	4	5	2	5	1	mg/kg	1	A-T-055s
Total Aromatics _A	6	65	4	5	2	5	1	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35) _A	9	80	5	6	3	5	1	mg/kg	1	A-T-055s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts.

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 1155µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed.

Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve.

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR

Client: RSK Environment Ltd Southampton, Unit 26 , Basepoint Abbey Enterprise
Centre, Premier Way, Romsey,, Hampshire, UK, SO51 9AQ

Project: Angmering

Clients Project No: 305021

Project No: 19/09511

Date Received: 10/10/2019 (am)

Cool Box Temperatures (°C): 9.4

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 19/07719
Issue Number: 1

Date: 02 September, 2019

Client: RSK Environment Ltd Southampton
Unit 26
Basepoint Abbey Enterprise Centre
Premier Way
Romsey,
Hampshire
UK
SO51 9AQ

Project Manager: Josh Laite; All RSK Southampton
Project Name: Angmering
Project Ref: 305021
Order No: N/A
Date Samples Received: 15/08/19
Date Instructions Received: 15/08/19
Date Analysis Completed: 29/08/19

Prepared by:

Approved by:

Melanie Marshall
Laboratory Coordinator

Richard Wong
Client Manager

Envirolab Job Number: 19/07719

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07719/1	19/07719/2	19/07719/3	19/07719/4	19/07719/5	19/07719/6	19/07719/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4	5	7	10			
Client Sample ID	HDP101	HDP106	HDP103	HDP113	HDP118	HDP104	HDP107			
Depth to Top	0.10	0.10	0.10	0.10	0.10	0.40	0.40			
Depth To Bottom										
Date Sampled	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4AE	6AE	6AE	6AE	5AB	5ABE			
% Stones >10mm _A	6.9	6.3	4.4	4.2	3.4	13.8	11.0	% w/w	0.1	A-T-044
pH _D ^{M#}	7.95	7.86	7.78	7.95	8.11	7.94	8.24	pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	<200	<200	220	230	220	<200	<200	mg/kg	200	A-T-028s
Arsenic _D ^{M#}	3	4	5	4	4	6	4	mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.7	0.9	0.9	1.0	1.1	1.6	1.5	mg/kg	0.5	A-T-024s
Copper _D ^{M#}	11	14	16	12	14	10	8	mg/kg	1	A-T-024s
Chromium _D ^{M#}	17	22	16	24	28	27	27	mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-040s
Lead _D ^{M#}	11	12	18	14	16	13	11	mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	20	24	21	24	24	25	24	mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	2	<1	2	<1	<1	<1	mg/kg	1	A-T-024s
Zinc _D ^{M#}	36	40	47	44	51	47	57	mg/kg	5	A-T-024s

Envirolab Job Number: 19/07719

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07719/1	19/07719/2	19/07719/3	19/07719/4	19/07719/5	19/07719/6	19/07719/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4	5	7	10			
Client Sample ID	HDP101	HDP106	HDP103	HDP113	HDP118	HDP104	HDP107			
Depth to Top	0.10	0.10	0.10	0.10	0.10	0.40	0.40			
Depth To Bottom										
Date Sampled	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4AE	6AE	6AE	6AE	5AB	5ABE			
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD	NAD	NAD	NAD	NAD			A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A	N/A			

Envirolab Job Number: 19/07719

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07719/1	19/07719/2	19/07719/3	19/07719/4	19/07719/5	19/07719/6	19/07719/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4	5	7	10			
Client Sample ID	HDP101	HDP106	HDP103	HDP113	HDP118	HDP104	HDP107			
Depth to Top	0.10	0.10	0.10	0.10	0.10	0.40	0.40			
Depth To Bottom										
Date Sampled	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4AE	6AE	6AE	6AE	5AB	5ABE			
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	0.06	0.06	0.06	0.05	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	0.06	<0.04	0.05	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	0.10	0.07	0.11	0.10	0.07	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	0.07	<0.06	0.07	<0.06	<0.06	<0.06	<0.06	mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	0.09	<0.08	0.10	<0.08	<0.08	<0.08	<0.08	mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	0.05	<0.03	0.05	0.04	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	0.04	<0.03	mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	0.09	<0.07	0.08	<0.07	<0.07	<0.07	<0.07	mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	0.52	0.13	0.52	0.19	<0.08	<0.08	<0.08	mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/07719

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07719/1	19/07719/2	19/07719/3	19/07719/4	19/07719/5	19/07719/6	19/07719/7	Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4	5	7	10			
Client Sample ID	HDP101	HDP106	HDP103	HDP113	HDP118	HDP104	HDP107			
Depth to Top	0.10	0.10	0.10	0.10	0.10	0.40	0.40			
Depth To Bottom										
Date Sampled	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19	13-Aug-19			
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES			
Sample Matrix Code	4AE	4AE	6AE	6AE	6AE	5AB	5ABE			
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	2	1	2	3	2	<1	<1	mg/kg	1	A-T-055s
Ali >C21-C35 _A	16	12	24	18	17	2	<1	mg/kg	1	A-T-055s
Total Aliphatics _A	18	13	27	21	20	2	<1	mg/kg	1	A-T-055s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1	<1	mg/kg	1	A-T-055s
Aro >C12-C16 _A	1	<1	2	1	2	<1	<1	mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	5	4	8	7	6	<1	<1	mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	116	87	173	143	120	7	1	mg/kg	1	A-T-055s
Total Aromatics _A	121	90	184	154	128	8	1	mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35) _A	140	103	211	174	148	10	1	mg/kg	1	A-T-055s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	0.01	A-T-022s

Envirolab Job Number: 19/07719

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07719/8	19/07719/9						Units	Limit of Detection	Method ref
Client Sample No	12	9								
Client Sample ID	HDP109	HDP110								
Depth to Top	0.40	0.40								
Depth To Bottom										
Date Sampled	13-Aug-19	13-Aug-19								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	5AB	5A								
% Stones >10mm _A	15.2	9.9						% w/w	0.1	A-T-044
pH _D ^{M#}	8.32	8.35						pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	0.05						g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	<200	210						mg/kg	200	A-T-028s
Arsenic _D ^{M#}	5	5						mg/kg	1	A-T-024s
Cadmium _D ^{M#}	1.5	1.1						mg/kg	0.5	A-T-024s
Copper _D ^{M#}	6	13						mg/kg	1	A-T-024s
Chromium _D ^{M#}	24	30						mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1						mg/kg	1	A-T-040s
Lead _D ^{M#}	8	20						mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17						mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	20	23						mg/kg	1	A-T-024s
Selenium _D ^{M#}	2	<1						mg/kg	1	A-T-024s
Zinc _D ^{M#}	60	77						mg/kg	5	A-T-024s

Envirolab Job Number: 19/07719

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07719/8	19/07719/9						Units	Limit of Detection	Method ref
Client Sample No	12	9								
Client Sample ID	HDP109	HDP110								
Depth to Top	0.40	0.40								
Depth To Bottom										
Date Sampled	13-Aug-19	13-Aug-19								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	5AB	5A								
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD								A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A								

Envirolab Job Number: 19/07719

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07719/8	19/07719/9						Units	Limit of Detection	Method ref
Client Sample No	12	9								
Client Sample ID	HDP109	HDP110								
Depth to Top	0.40	0.40								
Depth To Bottom										
Date Sampled	13-Aug-19	13-Aug-19								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	5AB	5A								
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02						mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05						mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06						mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04						mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08						mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01						mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03						mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07						mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08						mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/07719

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07719/8	19/07719/9								
Client Sample No	12	9								
Client Sample ID	HDP109	HDP110								
Depth to Top	0.40	0.40								
Depth To Bottom										
Date Sampled	13-Aug-19	13-Aug-19								
Sample Type	Soil - ES	Soil - ES								
Sample Matrix Code	5AB	5A								
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1						mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Ali >C21-C35 _A	<1	1						mg/kg	1	A-T-055s
Total Aliphatics _A	<1	1						mg/kg	1	A-T-055s
Aro >C5-C7 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C10-C12 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1						mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1						mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	4	6						mg/kg	1	A-T-055s
Total Aromatics _A	4	6						mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35) _A	4	7						mg/kg	1	A-T-055s
BTEX - Benzene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01						mg/kg	0.01	A-T-022s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 1155µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed.

Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR

Client: RSK Environment Ltd
Centre, Premier Way, Romsey,, Hampshire, UK, SO51 9AQ

19/07719

Date Received:

15/08/2019 (am)

Project: Angmering

Cool Box Temperatures (°C): 14.6

Clients Project No: 305021

Lab Sample ID	19/07719/9
Client Sample No	9
Client Sample ID/Depth	HDP110 0.40m
Date Sampled	13/08/19
Deviation Code	
B1 (no VPH)	✓
D (no glass)	✓

Key

B1 (no VPH)

Separate container not supplied for VPH/BTEX analysis

D (no glass)

Glass container not provided for extractable organics analysis

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 19/07781
Issue Number: 1

Date: 30 August, 2019

Client: RSK Environment Ltd Southampton
Unit 26
Basepoint Abbey Enterprise Centre
Premier Way
Romsey,
Hampshire
UK
SO51 9AQ

Project Manager: Hannah Dashfield; All RSK Southampton/Josh Laite;
Project Name: Angmering
Project Ref: 305021
Order No: N/A
Date Samples Received: 19/08/19
Date Instructions Received: 19/08/19
Date Analysis Completed: 29/08/19

Prepared by:

Approved by:

Melanie Marshall
Laboratory Coordinator

Danielle Brierley
Client Manager

Envirolab Job Number: 19/07781

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07781/1	19/07781/2	19/07781/3	19/07781/4	19/07781/5	19/07781/11		Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4	5					
Client Sample ID	HDP112	HDP114	HDP115	HDP116	HDP117	HDP101				
Depth to Top	0.40	0.40	0.40	0.40	0.40	0.30				
Depth To Bottom										
Date Sampled	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil				
Sample Matrix Code	5A	5A	5A	5A	5A	5A				
% Stones >10mm _A	5.0	19.9	9.5	1.5	11.0	29.8		% w/w	0.1	A-T-044
pH _D ^{M#}	7.94	8.05	7.97	8.16	8.26	8.48		pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	0.03		g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	<200	<200	<200	<200	<200	<200		mg/kg	200	A-T-028s
Arsenic _D ^{M#}	5	5	5	6	4	4		mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.9	1.0	0.7	0.9	0.8	0.6		mg/kg	0.5	A-T-024s
Copper _D ^{M#}	10	9	9	10	7	6		mg/kg	1	A-T-024s
Chromium _D ^{M#}	32	23	26	29	26	19		mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-040s
Lead _D ^{M#}	11	10	12	11	9	7		mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17		mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	27	24	24	26	23	17		mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-024s
Zinc _D ^{M#}	67	84	60	67	53	46		mg/kg	5	A-T-024s

Envirolab Job Number: 19/07781

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07781/1	19/07781/2	19/07781/3	19/07781/4	19/07781/5	19/07781/11		Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4	5					
Client Sample ID	HDP112	HDP114	HDP115	HDP116	HDP117	HDP101				
Depth to Top	0.40	0.40	0.40	0.40	0.40	0.30				
Depth To Bottom										
Date Sampled	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil				
Sample Matrix Code	5A	5A	5A	5A	5A	5A				
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD	NAD	NAD	NAD				A-T-045
Asbestos ACM - Suitable for Water Absorption Test?	N/A	N/A	N/A	N/A	N/A	N/A				

Envirolab Job Number: 19/07781

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07781/1	19/07781/2	19/07781/3	19/07781/4	19/07781/5	19/07781/11		Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4	5					
Client Sample ID	HDP112	HDP114	HDP115	HDP116	HDP117	HDP101				
Depth to Top	0.40	0.40	0.40	0.40	0.40	0.30				
Depth To Bottom										
Date Sampled	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil				
Sample Matrix Code	5A	5A	5A	5A	5A	5A				
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05		mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06		mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04		mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08		mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03		mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07		mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08		mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/07781

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07781/1	19/07781/2	19/07781/3	19/07781/4	19/07781/5	19/07781/11		Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4	5					
Client Sample ID	HDP112	HDP114	HDP115	HDP116	HDP117	HDP101				
Depth to Top	0.40	0.40	0.40	0.40	0.40	0.30				
Depth To Bottom										
Date Sampled	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19	15-Aug-19				
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil - ES	Soil				
Sample Matrix Code	5A	5A	5A	5A	5A	5A				
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Ali >C21-C35 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Total Aliphatics _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C10-C12 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
Total Aromatics _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35) _A	<1	<1	<1	<1	<1	<1		mg/kg	1	A-T-055s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		mg/kg	0.01	A-T-022s

REPORT NOTES

General

This report shall not be reproduced, except in full, without written approval from Envirolab.

The results reported herein relate only to the material supplied to the laboratory.

The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AB



Client: RSK Environment Ltd Southampton, Unit 26 , Basepoint Abbey Enterprise
Centre, Premier Way, Romsey,, Hampshire, UK, SO51 9AQ

Project: Angmering

Clients Project No: 305021

Project No: 19/07781

Date Received: 19/08/2019 (am)

Cool Box Temperatures (°C): 16.9 & 17.1

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

FINAL ANALYTICAL TEST REPORT

Envirolab Job Number: 19/07960
Issue Number: 1

Date: 06 September, 2019

Client: RSK Environment Ltd Southampton
Unit 26
Basepoint Abbey Enterprise Centre
Premier Way
Romsey,
Hampshire
UK
SO51 9AQ

Project Manager: Josh Laite; All RSK Southampton
Project Name: Angmering
Project Ref: 305021
Order No: N/A
Date Samples Received: 23/08/19
Date Instructions Received: 23/08/19
Date Analysis Completed: 05/09/19

Prepared by:

Approved by:

Holly Neary-Ring
Client Manager

Danielle Descobry
Quality Manager

Envirolab Job Number: 19/07960

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07960/1	19/07960/2	19/07960/3	19/07960/4				Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4						
Client Sample ID	HDP102	HDP105	HDP108	HDP111						
Depth to Top	0.40	0.40	0.40	0.40						
Depth To Bottom										
Date Sampled	21-Aug-19	21-Aug-19	21-Aug-19	21-Aug-19						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5A	5AB	5AB	5A						
% Stones >10mm _A	14.9	33.7	8.9	1.6				% w/w	0.1	A-T-044
pH _D ^{M#}	8.01	8.00	7.94	8.04				pH	0.01	A-T-031s
Sulphate (water sol 2:1) _D ^{M#}	0.02	0.02	0.02	0.02				g/l	0.01	A-T-026s
Sulphate (acid soluble) _D ^{M#}	<200	<200	<200	<200				mg/kg	200	A-T-028s
Arsenic _D ^{M#}	5	3	4	4				mg/kg	1	A-T-024s
Cadmium _D ^{M#}	0.9	0.7	0.7	0.9				mg/kg	0.5	A-T-024s
Copper _D ^{M#}	10	6	8	10				mg/kg	1	A-T-024s
Chromium _D ^{M#}	29	20	35	33				mg/kg	1	A-T-024s
Chromium (hexavalent) _D	<1	<1	<1	<1				mg/kg	1	A-T-040s
Lead _D ^{M#}	12	9	11	12				mg/kg	1	A-T-024s
Mercury _D	<0.17	<0.17	<0.17	<0.17				mg/kg	0.17	A-T-024s
Nickel _D ^{M#}	25	17	26	27				mg/kg	1	A-T-024s
Selenium _D ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-024s
Zinc _D ^{M#}	56	44	65	66				mg/kg	5	A-T-024s

Envirolab Job Number: 19/07960

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07960/1	19/07960/2	19/07960/3	19/07960/4				Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4						
Client Sample ID	HDP102	HDP105	HDP108	HDP111						
Depth to Top	0.40	0.40	0.40	0.40						
Depth To Bottom										
Date Sampled	21-Aug-19	21-Aug-19	21-Aug-19	21-Aug-19						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5A	5AB	5AB	5A						
Asbestos in Soil (inc. matrix)										
Asbestos in soil [#]	NAD	NAD	NAD	NAD						A-T-045
Asbestos ACM - Suitable for Water Absorption Test? ^o	N/A	N/A	N/A	N/A						A-T-045

Envirolab Job Number: 19/07960

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07960/1	19/07960/2	19/07960/3	19/07960/4				Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4						
Client Sample ID	HDP102	HDP105	HDP108	HDP111						
Depth to Top	0.40	0.40	0.40	0.40						
Depth To Bottom										
Date Sampled	21-Aug-19	21-Aug-19	21-Aug-19	21-Aug-19						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5A	5AB	5AB	5A						
PAH-16MS										
Acenaphthene _A ^{M#}	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-019s
Acenaphthylene _A ^{M#}	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-019s
Anthracene _A ^{M#}	<0.02	<0.02	<0.02	<0.02				mg/kg	0.02	A-T-019s
Benzo(a)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04				mg/kg	0.04	A-T-019s
Benzo(a)pyrene _A ^{M#}	<0.04	<0.04	<0.04	<0.04				mg/kg	0.04	A-T-019s
Benzo(b)fluoranthene _A ^{M#}	<0.05	<0.05	<0.05	<0.05				mg/kg	0.05	A-T-019s
Benzo(ghi)perylene _A ^{M#}	<0.05	<0.05	<0.05	<0.05				mg/kg	0.05	A-T-019s
Benzo(k)fluoranthene _A ^{M#}	<0.07	<0.07	<0.07	<0.07				mg/kg	0.07	A-T-019s
Chrysene _A ^{M#}	<0.06	<0.06	<0.06	<0.06				mg/kg	0.06	A-T-019s
Dibenzo(ah)anthracene _A ^{M#}	<0.04	<0.04	<0.04	<0.04				mg/kg	0.04	A-T-019s
Fluoranthene _A ^{M#}	<0.08	<0.08	<0.08	<0.08				mg/kg	0.08	A-T-019s
Fluorene _A ^{M#}	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-019s
Indeno(123-cd)pyrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03				mg/kg	0.03	A-T-019s
Naphthalene _A ^{M#}	<0.03	<0.03	<0.03	<0.03				mg/kg	0.03	A-T-019s
Phenanthrene _A ^{M#}	<0.03	<0.03	<0.03	<0.03				mg/kg	0.03	A-T-019s
Pyrene _A ^{M#}	<0.07	<0.07	<0.07	<0.07				mg/kg	0.07	A-T-019s
Total PAH-16MS _A ^{M#}	<0.08	<0.08	<0.08	<0.08				mg/kg	0.01	A-T-019s

Envirolab Job Number: 19/07960

Client Project Name: Angmering

Client Project Ref: 305021

Lab Sample ID	19/07960/1	19/07960/2	19/07960/3	19/07960/4				Units	Limit of Detection	Method ref
Client Sample No	1	2	3	4						
Client Sample ID	HDP102	HDP105	HDP108	HDP111						
Depth to Top	0.40	0.40	0.40	0.40						
Depth To Bottom										
Date Sampled	21-Aug-19	21-Aug-19	21-Aug-19	21-Aug-19						
Sample Type	Soil - ES	Soil - ES	Soil - ES	Soil - ES						
Sample Matrix Code	5A	5AB	5AB	5A						
TPH CWG										
Ali >C5-C6 _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Ali >C6-C8 _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Ali >C8-C10 _A	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C10-C12 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C12-C16 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C16-C21 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Ali >C21-C35 _A	2	2	<1	<1				mg/kg	1	A-T-055s
Total Aliphatics _A	2	2	<1	<1				mg/kg	1	A-T-055s
Aro >C5-C7 _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Aro >C7-C8 _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
Aro >C8-C10 _A	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C10-C12 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C12-C16 _A	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C16-C21 _A ^{M#}	<1	<1	<1	<1				mg/kg	1	A-T-055s
Aro >C21-C35 _A ^{M#}	6	5	1	2				mg/kg	1	A-T-055s
Total Aromatics _A	6	5	1	2				mg/kg	1	A-T-055s
TPH (Ali & Aro >C5-C35) _A	7	5	1	2				mg/kg	1	A-T-055s
BTEX - Benzene _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - Toluene _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - Ethyl Benzene _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - m & p Xylene _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
BTEX - o Xylene _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s
MTBE _A [#]	<0.01	<0.01	<0.01	<0.01				mg/kg	0.01	A-T-022s

REPORT NOTES

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The residue of any samples contained within this report, and any received with the same delivery, will be disposed of six weeks after initial scheduling. For samples tested for Asbestos we will retain a portion of the dried sample for a minimum of six months after the initial Asbestos testing is completed.

Analytical results reflect the quality of the sample at the time of analysis only.

Opinions and interpretations expressed are outside the scope of our accreditation.

If results are in italic font they are associated with an AQC failure, these are not accredited and are unreliable.

A deviating samples report is appended and will indicate if samples or tests have been found to be deviating. Any test results affected may not be an accurate record of the concentration at the time of sampling and, as a result, may be invalid.

The Client Sample No, Client Sample ID, Depth to Top, Depth to Bottom and Date Sampled were all provided by the client.

Soil chemical analysis:

All results are reported as dry weight (<40°C).

For samples with Matrix Codes 1 - 6 natural stones, brick and concrete fragments >10mm and any extraneous material (visible glass, metal or twigs) are removed and excluded from the sample prior to analysis and reported results corrected to a whole sample basis. This is reported as '% stones >10mm'.

For samples with Matrix Code 7 the whole sample is dried and crushed prior to analysis and this supersedes any "A" subscripts

All analysis is performed on the sample as received for soil samples which are positive for asbestos or the client has informed asbestos may be present and/or if they are from outside the European Union and this supersedes any "D" subscripts.

TPH analysis of water by method A-T-007:

Free and visible oils are excluded from the sample used for analysis so that the reported result represents the dissolved phase only.

Electrical Conductivity of water by Method A-T-037:

Results greater than 12900µS/cm @ 25°C / 11550µS/cm @ 20°C fall outside the calibration range and as such are unaccredited.

Asbestos:

Asbestos in soil analysis is performed on a dried aliquot of the submitted sample and cannot guarantee to identify asbestos if only present in small numbers as discrete fibres/fragments in the original sample.

Stones etc. are not removed from the sample prior to analysis.

Quantification of asbestos is a 3 stage process including visual identification, hand picking and weighing and fibre counting by sedimentation/phase contrast optical microscopy if required. If asbestos is identified as being present but is not in a form that is suitable for analysis by hand picking and weighing (normally if the asbestos is present as free fibres) quantification by sedimentation is performed. Where ACMs are found a percentage asbestos is assigned to each with reference to 'HSG264, Asbestos: The survey guide' and the calculated asbestos content is expressed as a percentage of the dried soil sample aliquot used.

Predominant Matrix Codes:

1 = SAND, 2 = LOAM, 3 = CLAY, 4 = LOAM/SAND, 5 = SAND/CLAY, 6 = CLAY/LOAM, 7 = OTHER, 8 = Asbestos bulk ID sample.

Samples with Matrix Code 7 & 8 are not predominantly a SAND/LOAM/CLAY mix and are not covered by our BSEN 17025 or MCERTS accreditations, with the exception of bulk asbestos which are BSEN 17025 accredited.

Secondary Matrix Codes:

A = contains stones, B = contains construction rubble, C = contains visible hydrocarbons, D = contains glass/metal,

E = contains roots/twigs.

Key:

IS indicates Insufficient Sample for analysis.

US indicates Unsuitable Sample for analysis.

NDP indicates No Determination Possible.

NAD indicates No Asbestos Detected.

N/A indicates Not Applicable.

Superscript # indicates method accredited to ISO 17025.

Superscript "M" indicates method accredited to MCERTS.

Subscript "A" indicates analysis performed on the sample as received.

Subscript "D" indicates analysis performed on the dried sample, crushed to pass a 2mm sieve

Please contact us if you need any further information.

Envirolab Deviating Samples Report

Units 7&8 Sandpits Business Park, Mottram Road, Hyde, SK14 3AR

T [REDACTED]

Client: RSK Environment Ltd Southampton, Unit 26 , Basepoint Abbey Enterprise
Centre, Premier Way, Romsey,, Hampshire, UK, SO51 9AQ

Project: Angmering

Clients Project No: 305021

Project No: 19/07960

Date Received: 23/08/2019 (am)

Cool Box Temperatures (°C): 18.6

NO DEVIATIONS IDENTIFIED

If, at any point before reaching the laboratory, the temperature of the samples has breached those set in published standards, e.g. BS-EN 5667-3, ISO 18400-102:2017, then the concentration of any affected analytes may differ from that at the time of sampling.

APPENDIX F

GENERIC ASSESSMENT CRITERIA

Generic assessment criteria for human health: Public open space (near residential housing) scenario

Background

RSK's generic assessment criteria (GAC) were initially prepared following the publication by the Environment Agency (EA) of soil guideline value (SGV) and toxicological (TOX) reports, and associated publications in 2009⁽¹⁾. RSK GAC were updated following the publication of GAC by LQM/CIEH in 2009⁽²⁾. RSK GAC are periodically revised when updated information on toxicological, land use or receptor parameters is published.

Updates to the RSK GAC

In 2014 the publication of Category 4 Screening Levels (C4SL)^(3,4), as part of the Defra-funded research project SP1010, included modifications to certain exposure assumptions documented within EA Science Report SC050221/SR3 (herein after referred to as SR3)⁽⁵⁾ used in the generation of SGVs. The publication of C4SL introduced two new land-use scenarios relating to public open spaces.

C4SL were published for six substances (cadmium, arsenic, benzene, benzo(a)pyrene, chromium VI and lead) for a sandy loam soil type with 6% soil organic matter, based on a low level of toxicological concern (LLTC; see Section 2.3 of research project report SP1010⁽³⁾). Where a C4SL has been published, the RSK GAC duplicates the C4SL published values using all input parameters within the SP1010 final project report⁽³⁾ and associated appendices⁽⁶⁾, and adopts them as GAC for these six substances.

For all other substances the C4SL exposure modifications have been applied to the RSK GAC. The current RSK GAC also use updated toxicology published by LQM/CIEH in 2015⁽⁷⁾ or by the USEPA⁽¹⁴⁾, where a C4SL has not been published.

RSK GAC derivation for metals and organic compounds

Model selection

Soil assessment criteria (SAC) were calculated using the Contaminated Land Exposure Assessment (CLEA) tool v1.06, supporting EA guidance^(5,8,9) and revised exposure scenarios published for the C4SL⁽³⁾.

Conceptual model

This GAC derivation considers POS_{Resi} to relate to public open space in close proximity to residential housing. This includes predominantly grassed areas adjacent to high-density housing such as a green surrounded by houses, in accordance with the C4SL POS_{Resi} land-use scenario⁽³⁾. This would also include smaller areas incorporated in newer developments.

The POS_{Resi} scenario considers risk to a child receptor (female) between the ages of >3 and <9 years old. In accordance with Section 3.6.3.3 of the SP1010 project report⁽³⁾, exposure assumptions are based on the adaptation of the CLEA residential land-use scenario without consumption of home-grown produce and vapour ingress to the building. The pathways considered for production of the SAC in the POS_{Resi} scenario are

- ingestion of soil and dust (outdoors and indoors respectively)

- dermal contact with soil (outdoors; and soil-derived dust indoors)
- inhalation of dust (outdoors and indoors)
- inhalation of vapours outdoors.

Figure 1 is a conceptual model illustrating these linkages.

In line with guidance in the EA SGV report for cadmium⁽¹⁾, the RSK GAC for cadmium has been derived based on estimates representative of lifetime exposure. Although young children are generally more likely to have higher exposures to soil contaminants, the renal toxicity of cadmium, and the derivation of the TDI_{oral} and TDI_{inh} , are based on considerations of the kidney burden accumulated over 50 years or so. It is therefore reasonable to consider exposure not just in childhood but averaged over a longer period.

With respect to volatilisation, the CLEA model assumes a simple linear partitioning of a chemical in the soil between the sorbed, dissolved and vapour phase⁽⁹⁾. The upper boundaries of this partitioning are represented by the maximum aqueous solubility and pure saturated vapour concentration of the chemical. The CLEA model estimates saturated soil concentrations where these limits are reached⁽⁹⁾. The CLEA software uses a traffic light system to identify when individual and/or combined assessment criteria exceed the lower of either the aqueous- or vapour-based soil saturation limits. Model output cells are flagged red where the saturated soil concentration has been exceeded and the contribution of the indoor and outdoor vapour pathway to total exposure is greater than 10%. In this case, further consideration of the following is required⁽⁹⁾:

- Free phase contamination may be present.
- Exposure from the vapour pathways will be over-predicted by the model, as in reality the vapour phase concentration will not increase at concentrations above saturation limits.
- Where the vapour pathway is greater than 90%, it is unlikely the relevant health criteria value (HCV) will be exceeded at soil concentrations at least a factor of ten higher than the relevant HCV.

Where the vapour pathway is the predominant pathway (contributes greater than 90% of exposure) or the only exposure route considered and the cell is highlighted red (SAC exceeds saturation limit), the risk based on the assumed conceptual model is likely to be negligible, as the vapour risk is assumed to be tolerable at maximum possible soil concentrations. In such circumstances, the vapour pathway exposure should be considered based on the presence of free phase or non-aqueous phase liquid sources and the measured concentrations of volatile organic compounds (VOC) in the vapour phase. Screening could be considered based on setting the SAC as the modelled soil saturation limits. However, as stated within the CLEA handbook⁽⁹⁾, this is likely to not be practical in many cases because of the very low saturation limits and, in any case, is highly conservative.

It should also be noted that for mixtures of compounds, free phase may be present where soil (or groundwater) concentrations are well below saturation limits for individual compounds.

Where the vapour pathway is only one of the exposure pathways considered, an additional approach can then be utilised as detailed within Section 4.12 of the CLEA model handbook⁽⁹⁾, which explains how to calculate an effective assessment criterion manually.

SR3⁽⁵⁾ states that, as a general rule of thumb, it is recognised that estimating vapour phase concentrations from dissolved and sorbed phase contamination by petroleum hydrocarbons are at least a factor of ten higher than those likely to be measured on site. RSK has therefore applied

an empirical subsurface correction factor of 10 into the CLEA chemical database for all petroleum hydrocarbons (including BTEX, trimethylbenzenes, and the polycyclic aromatic hydrocarbons (PAH) naphthalene, acenaphthene and acenaphthylene) to reduce this conservatism.

Input selection

The most up-to-date published chemical and toxicological data was obtained from EA Report SC050021/SR7⁽¹⁰⁾, the EA TOX⁽¹¹⁾ reports, the C4SL SP1010 project report and associated appendices^(3,6), the 2015 LQM/CIEH report⁽⁷⁾ or the USEPA IRIS database⁽¹⁴⁾. Where a C4SL has been published, the RSK GAC have duplicated the C4SL published values using all input parameters within the SP1010 final project report⁽³⁾ and associated appendices⁽⁶⁾, and has adopted them as GAC for these six substances. Toxicological and specific chemical parameters for 1,2,4-trimethylbenzene, barium and methyl tertiary-butyl ether (MTBE) were obtained from the CL:AIRE Soil Generic Assessment Criteria report⁽¹¹⁾.

For TPH, aromatic hydrocarbons C₅–C₈ were not modelled, as this range comprises benzene (>EC5-EC7) and toluene (>EC7-EC8), which are modelled separately.

Physical parameters

For the POS_{Resi} scenario, project report SP1010⁽³⁾ considers the potential for soil to be tracked into nearby houses with the potential for ingestion and inhalation of dust within the house. The CLEA default building is a small, two-storey terrace house.

POS_{resi} is considered to be a predominantly grassed area of up to 500m² (0.05 ha) with up to 50% potentially being bare soil. The input parameters were based on the air dispersion model and the vapour model detailed in SR3⁽⁵⁾. Full details of the land use scenario are presented in Table 3.6 of project report SP1010⁽³⁾.

The parameters for a sandy loam soil type were used in line with SR3⁽⁵⁾. This includes a value of 6% for the percentage of soil organic matter (SOM) within the soil. In RSK's experience, this is rather high for many sites. To avoid undertaking site-specific risk assessments for this parameter, RSK has produced an additional set of SAC for an SOM of 1% and 2.5%.

The SAC were produced using the input parameters in Table 1 below and Table 3.6 of project report SP1010⁽³⁾. The GAC by pathway are presented in Table 2 and the combined GAC presented in Table 3.

Figure 1: Conceptual model for CLEA public open space (residential) scenario

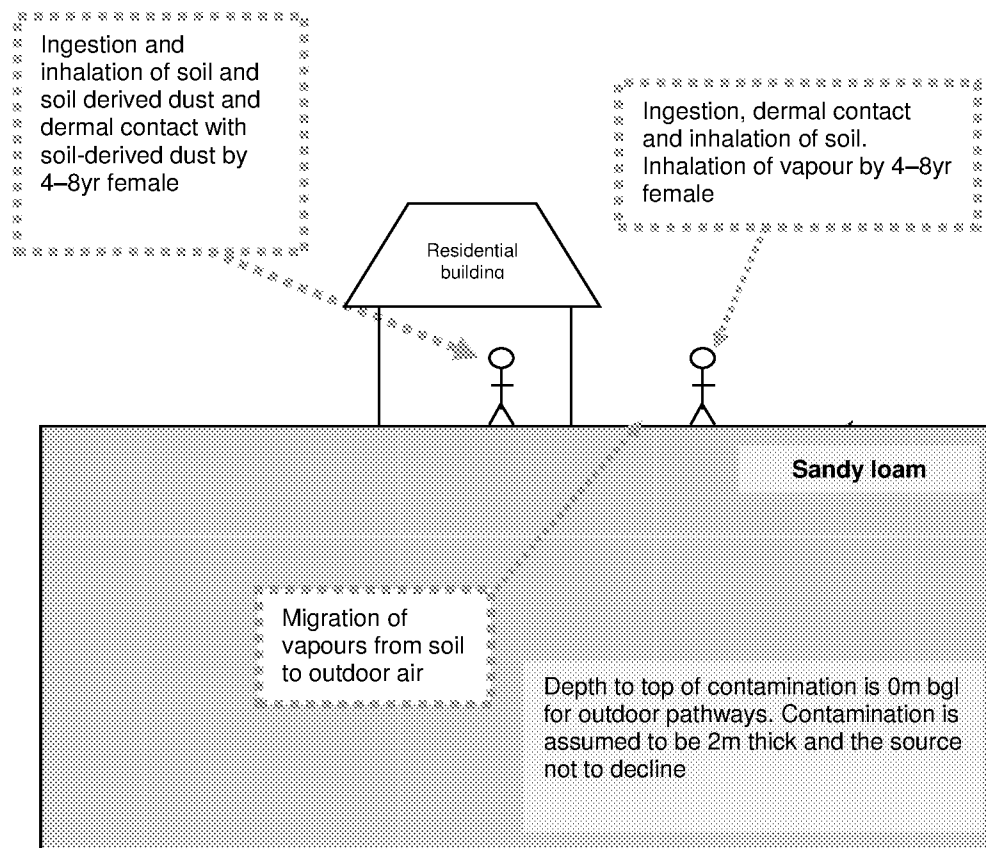


Table 1: Exposure assessment parameters for public open space (residential) scenario – inputs for CLEA model

Parameter	Value	Justification
Land use	Public open space (residential)	Chosen land use. Table 3.6 of SP1010 ⁽³⁾
Receptor	Female child	Taken as female child exposed over 6 years from 4 to 8 years, Table 3.6, SP1010 ⁽⁵⁾
Soil type	Sandy loam	Most common UK soil type (Section 4.3.1, Table 4.4, SR3 ⁽⁵⁾).
Start age class (AC)	4	Range of AC corresponding to key generic assumption that the critical receptor is a young female child aged 4-8 years (>3-<9). From Table 3.6, SP1010 ⁽⁵⁾
End AC	9	
SOM (%)	6	Representative of sandy loam according to EA guidance note dated January 2009 entitled 'Changes We Have Made to the CLEA Framework Documents' ⁽¹³⁾
	1	To provide SAC for sites where SOM < 6% as often observed by RSK
	2.5	
pH	7	Model default

References

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GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - PUBLIC OPEN SPACE (IN CLOSE PROXIMITY TO RESIDENTIAL HOUSING)

Table 2
Human Health Generic Assessment Criteria for Public Open Space (in close proximity to residential housing)

Compound	Notes	SAC Appropriate to Pathway SOM 1% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 2.5% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 6% (mg/kg)			Soil Saturation Limit (mg/kg)
		Oral	Inhalation	Combined		Oral	Inhalation	Combined		Oral	Inhalation	Combined	
Metals													
Arsenic	(a,b)	7.92E-01	5.31E-02	NR	NR	7.92E-01	5.31E-02	NR	NR	7.92E-01	5.31E-02	NR	NR
Barium	(b)	2.06E+03		NR	NR	2.06E+03		NR	NR	2.06E+03		NR	NR
Beryllium		3.91E-02	2.19E+00	NR	NR	3.91E-02	2.19E+00	NR	NR	3.91E-02	2.19E+00	NR	NR
Boron		2.15E+04	6.62E+06	NR	NR	2.15E+04	6.62E+06	NR	NR	2.15E+04	6.62E+06	NR	NR
Cadmium	(a)	3.64E+02	4.94E+02	2.20E+02	NR	3.64E+02	4.94E+02	2.20E+02	NR	3.64E+02	4.94E+02	2.20E+02	NR
Chromium (III) - trivalent	(c)	3.99E-04	1.54E-03	NR	NR	3.99E-04	1.54E-03	NR	NR	3.99E-04	1.54E-03	NR	NR
Chromium (VI) - hexavalent	(a,d)	1.18E+02	2.08E+01	NR	NR	1.18E+02	2.08E+01	NR	NR	1.18E+02	2.08E+01	NR	NR
Copper		2.19E+04	1.95E+04	1.20E+04	NR	2.19E+04	1.95E+04	1.20E+04	NR	2.19E+04	1.95E+04	1.20E+04	NR
Lead	(a)	6.26E+02	NR	NR	NR	6.26E+02	NR	NR	NR	6.26E+02	NR	NR	NR
Elemental Mercury (Hg ⁰)	(d)	NR	1.57E+01	NR	4.31E+00	NR	1.56E+01	NR	1.07E+01	NR	1.56E+01	NR	2.58E+01
Inorganic Mercury (Hg ²⁺)		1.28E-02	4.62E-03	1.24E-02	NR	1.28E-02	4.62E-03	1.24E-02	NR	1.28E-02	4.62E-03	1.24E-02	NR
Methyl Mercury (Hg ^M)		3.97E+01	5.86E+03	3.94E+01	7.33E+01	3.97E+01	7.06E+03	3.95E+01	1.42E+02	3.97E+01	6.43E+03	3.95E+01	3.04E+02
Nickel	(d)	3.74E-02	2.31E-02	NR	NR	3.74E-02	2.31E-02	NR	NR	3.74E-02	2.31E-02	NR	NR
Selenium	(b)	1.14E+03	NR	NR	NR	1.14E+03	NR	NR	NR	1.14E+03	NR	NR	NR
Vanadium		2.47E+03	1.99E+03	NR	NR	2.47E+03	1.99E+03	NR	NR	2.47E+03	1.99E+03	NR	NR
Zinc	(b)	6.08E+04	4.62E+07	NR	NR	6.08E+04	4.62E+07	NR	NR	6.08E+04	4.62E+07	NR	NR
Cyanide (free)		6.02E+01	1.75E+04	6.01E+01	NR	6.02E+01	1.75E+04	6.01E+01	NR	6.02E+01	1.75E+04	6.01E+01	NR
Volatile Organic Compounds													
Benzene	(a)	1.44E-02	8.39E-03	1.41E-02	1.22E-03	1.44E-02	1.12E-04	1.42E-02	2.26E-03	1.44E-02	1.58E-04	1.43E-02	4.71E-03
Toluene		5.61E+04	6.86E+06	5.57E+04	8.69E+02	5.61E+04	9.88E+06	5.58E+04	1.92E+03	5.61E+04	1.42E+07	5.59E+04	4.36E+03
Ethylbenzene		2.52E-04	4.74E-05	2.29E-04	5.18E-02	2.52E-04	6.95E-05	2.43E-04	1.22E-03	2.52E-04	9.98E+05	2.46E-04	2.84E+03
Xylene - m		4.53E+04	4.14E+05	4.06E-04	6.25E-02	4.53E-04	6.05E-05	4.22E-04	1.47E+03	4.53E-04	8.62E+05	4.31E-04	3.46E+03
Xylene - o		4.53E+04	4.26E+05	4.10E+04	4.78E-02	4.53E-04	6.22E+05	4.23E-04	1.12E+03	4.53E+04	8.64E+05	4.32E+04	2.62E+03
Xylene - p		4.53E+04	4.07E+05	4.08E-04	5.76E+02	4.53E-04	5.93E+05	4.22E-04	1.35E+03	4.53E-04	8.46E+05	4.31E+04	3.17E+03
Total xylene		4.52E-04	4.07E+05	4.06E-04	6.25E+02	4.53E-04	5.93E+05	4.22E+04	1.47E+03	4.53E-04	8.46E+05	4.31E+04	3.46E+03
Methyl tertiary-Butyl ether (MTBE)		7.57E-04	5.10E-06	7.46E-04	2.04E-04	7.57E-04	6.33E+06	7.46E-04	3.31E-04	7.57E-04	6.36E+06	7.51E-04	6.27E-04
Trichloroethene		1.26E+02	1.94E+03	1.19E-02	1.54E+03	1.26E-02	2.78E+03	1.21E-02	3.22E+03	1.26E-02	3.98E+03	1.22E+02	7.14E+03
Tetrachloroethene		1.44E+03	1.97E+04	1.39E+03	4.24E+02	1.44E+03	2.88E+04	1.40E+03	9.51E+02	1.44E+03	4.21E+04	1.41E+03	2.18E+03
1,1,1-Trichloroethane		1.51E+05	1.46E+06	1.37E-05	1.43E+03	1.51E+05	2.06E+06	1.41E+05	2.92E+03	1.51E+05	2.98E+06	1.44E+05	6.39E+03
1,1,1,2-Tetrachloroethane		1.45E+03	5.44E+04	1.41E+03	2.60E+03	1.45E+03	7.78E+04	1.42E+03	6.02E+03	1.45E+03	1.09E+05	1.43E+03	1.40E+04
1,1,1,2,2-Tetrachloroethane		1.45E+03	6.07E+04	1.42E+03	2.67E+03	1.45E+03	1.07E+05	1.43E+03	5.46E+03	1.45E+03	1.42E+05	1.43E+03	1.20E+04
Carbon Tetrachloride		1.01E+03	4.06E+03	8.96E-02	1.52E+03	1.01E+03	5.95E+03	8.23E-02	3.32E+03	1.01E+03	6.76E+03	9.50E+02	7.54E+03
1,2-Dichloroethane		3.02E-01	6.29E-02	2.89E+01	3.41E+03	3.02E-01	7.49E-02	2.81E+01	4.91E+03	3.02E-01	5.52E-02	2.94E+01	8.43E+03
Vinyl Chloride		3.53E+00	2.95E+02	3.49E+00	1.36E+03	3.53E+00	3.35E+02	3.30E+00	1.76E+03	3.53E+00	4.13E+02	3.50E+00	2.69E+03
1,2,4-Trimethylbenzene		NR	2.48E+02	NR	4.74E+02	NR	2.48E+02	NR	1.16E+03	NR	2.50E+02	NR	2.76E+03
1,3,5-Trimethylbenzene	(e)	NR	NR	NR	2.30E+02	NR	NR	NR	5.52E+02	NR	NR	NR	1.30E+03
Semi-Volatile Organic Compounds													
Acenaphthene		1.49E+04	3.29E+06	1.48E+04	5.70E+01	1.49E+04	3.64E+06	1.48E+04	1.41E+02	1.49E+04	3.94E+06	1.48E+04	3.36E+02
Acenaphthylene		1.49E+04	3.21E+06	1.48E+04	8.61E+01	1.49E+04	3.61E+06	1.48E+04	2.12E+02	1.49E+04	3.91E+06	1.48E+04	5.06E+02
Anthracene		7.44E+04	1.94E+07	7.41E+04	1.17E+00	7.44E+04	2.06E+07	7.41E+04	2.91E+00	7.44E+04	2.14E+07	7.41E+04	6.96E+00
Benzo(a)anthracene		3.84E-01	1.11E+02	2.85E-01	1.71E+00	3.84E-01	1.13E+02	2.86E-01	4.28E+00	3.84E-01	1.14E+02	2.87E+01	1.03E+01
Benzo(a)pyrene	(a)	1.04E+01	3.88E+01	NR	9.11E-01	1.04E+01	3.93E+01	NR	2.28E+00	1.04E+01	3.95E+01	NR	5.46E+00
Benzo(b)fluoranthene		9.67E+00	2.83E+01	7.21E+00	1.22E+00	9.67E+00	2.86E+01	7.23E+00	3.04E+00	9.67E+00	2.89E+01	7.24E+00	7.29E+00
Benzo(g,h,i)perylene		6.53E+02	2.50E+03	6.36E-02	1.54E-02	6.53E-02	2.51E+03	6.37E-02	3.85E-02	6.53E-02	2.52E+03	6.37E-02	9.23E-02
Benzo(k)fluoranthene		2.55E-02	7.49E-02	1.90E-02	6.87E-01	2.55E-02	7.56E-02	1.91E-02	1.72E+00	2.55E-02	7.61E-02	1.91E-02	4.12E+00
Chrysene		7.68E-01	2.21E+02	5.70E-01	4.40E-01	7.68E-01	2.24E+02	5.72E+01	1.10E+00	7.68E-01	2.27E+02	5.74E+01	2.64E+00
Dibenz(a,h)anthracene		7.68E-01	2.25E+00	5.73E-01	3.93E-03	7.68E-01	2.27E+00	5.74E-01	9.82E-03	7.68E-01	2.29E+00	5.75E-01	2.36E-02
Fluoranthene		3.10E-03	8.82E-05	3.08E-03	1.89E-01	3.10E-03	9.10E-05	3.09E+03	4.73E+01	3.10E+03	9.27E-05	3.09E-03	1.13E+02
Fluorene		9.91E+03	2.34E+06	9.87E-03	3.09E+01	9.91E+03	2.57E+06	9.87E+03	7.65E+01	9.91E+03	2.73E+06	9.87E+03	1.83E+02
Indeno(1,2,3-cd)pyrene		1.10E+02	3.19E+02	8.17E+01	6.13E-02	1.10E+02	3.24E+02	8.20E+01	1.53E-01	1.10E+02	3.26E+02	8.22E+01	3.68E-01
Naphthalene		4.89E+03	1.93E+04	3.90E+03	7.64E-01	4.89E+03	2.93E+04	4.10E+03	1.83E+02	4.89E+03	3.16E+04	4.24E+03	4.32E+02
Phenanthrene		3.08E+03	8.12E+05	3.07E-03	3.60E+01	3.08E+03	8.61E+05	3.07E-03	8.96E+01	3.08E+03	8.94E+05	3.07E+03	2.14E+02

GENERIC ASSESSMENT CRITERIA FOR HUMAN HEALTH - PUBLIC OPEN SPACE (IN CLOSE PROXIMITY TO RESIDENTIAL HOUSING)



Table 2

Human Health Generic Assessment Criteria for Public Open Space (in close proximity to residential housing)

Compound	Notes	SAC Appropriate to Pathway SOM 1% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 2.5% (mg/kg)			Soil Saturation Limit (mg/kg)	SAC Appropriate to Pathway SOM 6% (mg/kg)			Soil Saturation Limit (mg/kg)
		Oral	Inhalation	Combined		Oral	Inhalation	Combined		Oral	Inhalation	Combined	
Pyrene		7.43E+03	2.11E+06	7.41E+03	2.20E+00	7.43E+03	2.18E+06	7.41E+03	5.49E+00	7.43E+03	2.22E+06	7.41E+03	1.32E+01
Phenol		1.31E+05	1.11E+04	1.03E+04	2.42E+04	1.31E+05	1.12E+04	1.03E+04	3.81E+04	1.31E+05	1.12E+04	1.03E+04	7.03E+04
Total Petroleum Hydrocarbons													
Aliphatic hydrocarbons <EC ₁₇ -EC ₆		6.31E+05	2.03E+06	5.75E+05	3.04E+02	6.31E+05	2.74E+06	5.91E+05	5.58E+02	6.31E+05	3.92E+06	6.04E+05	1.15E+03
Aliphatic hydrocarbons >EC ₆ -EC ₅		6.31E+05	3.16E+06	5.97E+05	1.44E+02	6.31E+05	4.68E+06	6.09E+05	3.22E+02	6.31E+05	6.99E+06	6.16E+05	7.36E+02
Aliphatic hydrocarbons >EC ₆ -EC ₁₀		1.26E+04	3.89E+05	1.25E+04	7.77E+01	1.26E+04	5.88E+05	1.26E+04	1.90E+02	1.26E+04	8.71E+05	1.26E+04	4.51E+02
Aliphatic hydrocarbons >EC ₁₀ -EC ₁₃		1.26E+04	8.12E+05	1.26E+04	4.75E+01	1.26E+04	1.23E+06	1.26E+04	1.18E+02	1.26E+04	1.80E+06	1.26E+04	2.83E+02
Aliphatic hydrocarbons >EC ₁₃ -EC ₁₆		1.26E+04	2.07E+06	1.26E+04	2.37E+01	1.26E+04	2.95E+06	1.26E+04	5.91E+01	1.26E+04	3.99E+06	1.26E+04	1.42E+02
Aliphatic hydrocarbons >EC ₁₆ -EC ₂₀	(b)	2.51E+05	NR	NR	8.48E+00	2.51E+05	NR	NR	2.12E+01	2.51E+05	NR	NR	5.09E+01
Aliphatic hydrocarbons >EC ₂₀ -EC ₄₄	(b)	2.51E+05	NR	NR	8.48E+00	2.51E+05	NR	NR	2.12E+01	2.51E+05	NR	NR	5.09E+01
Aromatic hydrocarbons >EC ₉ -EC ₁₀		5.05E+03	2.16E+05	5.02E+03	6.13E+02	5.05E+03	3.21E+05	5.03E+03	1.50E+03	5.05E+03	4.60E+05	5.04E+03	3.58E+03
Aromatic hydrocarbons >EC ₁₀ -EC ₁₂		5.05E+03	4.48E+05	5.04E+03	3.64E+02	5.05E+03	6.34E+05	5.04E+03	8.99E+02	5.05E+03	8.52E+05	5.04E+03	2.15E+03
Aromatic hydrocarbons >EC ₁₂ -EC ₁₆		5.05E+03	1.02E+06	5.05E+03	1.69E+02	5.05E+03	1.29E+06	5.05E+03	4.19E+02	5.05E+03	1.52E+06	5.05E+03	1.00E+03
Aromatic hydrocarbons >EC ₁₆ -EC ₂₁	(b)	3.77E+03	NR	NR	5.37E+01	3.77E+03	NR	NR	1.34E+02	3.77E+03	NR	NR	3.21E+02
Aromatic hydrocarbons >EC ₂₁ -EC ₃₅	(b)	3.77E+03	NR	NR	4.83E+00	3.77E+03	NR	NR	1.21E+01	3.77E+03	NR	NR	2.90E+01
Aromatic hydrocarbons >EC ₃₅ -EC ₆₄	(b)	3.77E+03	NR	NR	4.83E+00	3.77E+03	NR	NR	1.21E+01	3.77E+03	NR	NR	2.90E+01

Notes:

Public open space (resi) and (park) GAC are based on the exposure parameters detailed within SP1010 "Development of Category 4 Screening Levels for Assessment of Land affected by Contamination", Final, 20th December 2013

EC - equivalent carbon. GrAC - groundwater assessment criteria. SAC - soil assessment criteria.

The CLEA model output is colour coded depending upon whether the soil saturation limit has been exceeded.

	Calculated SAC exceeds soil saturation limit and may significantly affect the interpretation of any exceedances as the contribution of the indoor and outdoor vapour pathway to total exposure is >10%.
	Calculated SAC exceeds soil saturation limit but the exceedance will not affect the SAC significantly as the contribution of the indoor and outdoor vapour pathway to total exposure is <10%.
	Calculated SAC does not exceed the soil saturation limit.

The SAC for organic compounds are dependant upon soil organic matter (SOM) (%) content. To obtain SOM from total organic carbon (TOC) (%) divide by 0.58. 1% SOM is 0.58% TOC. DL Rowell Soil Science: Methods and Applications, Longmans, 1994.

SAC for TPH fractions, PAHs naphthalene, acenaphthene and acenaphthylene, BTEX and trimethylbenzene compounds were produced using an attenuation factor for the indoor air inhalation pathway of 10 to reduce conservatism associated with the vapour inhalation pathway (Section 16.1.1, 5R3)

(a) SAC for arsenic, benzene, benzo(a)pyrene, cadmium, chromium VI and lead are derived using the C4SL toxicology data.

(b) SAC for barium and selenium should not include the inhalation pathway as no expert group HCV has been derived; aliphatic and aromatic hydrocarbons >EC16 should not include inhalation pathway due to their non-volatile nature and inhalation exposure being minimal (oral, dermal and inhalation exposure is compared to the oral HCV); arsenic should only be based on oral contribution (rather than combined) owing to the relative small contribution from inhalation in accordance with the SGV.

(c) SAC for CrIII should be based on the lower of the oral and inhalation SAC (see LQM/CIEH 2015 Section 6.8)

(d) SAC for elemental mercury, chromium VI and nickel should be based on the inhalation pathway only.

(e) SAC for 1,3,5-trimethylbenzene is not recorded owing to the lack of toxicological data, SAC for 1,2,4-trimethylbenzene may be used

Compound	SAC for Soil SOM 1% (mg/kg)	SAC for Soil SOM 2.5% (mg/kg)	SAC for Soil SOM 6% (mg/kg)
Metals			
Arsenic	79	79	79
Barium	2,680	2,680	2,680
Beryllium	2.2	2.2	2.2
Boron	21,500	21,500	21,500
Cadmium	220	220	220
Chromium (III) - trivalent	1,540	1,540	1,540
Chromium (VI) - hexavalent	21	21	21
Copper	12,000	12,000	12,000
Lead	630	630	630
Elemental Mercury (Hg ⁰)	16	16	16
Inorganic Mercury (Hg ²⁺)	120	120	120
Methyl Mercury (Hg ⁺⁺)	39	39	40
Nickel	230	230	230
Selenium	1,100	1,100	1,100
Vanadium	1,990	1,990	1,990
Zinc	81,000	81,000	81,000
Cyanide (free)	80	80	80
Volatile Organic Compounds			
Benzene	140	140	140
Toluene	55,700	55,800	55,900
Ethylbenzene	23,900	24,300	24,600
Xylene - m	40,800	42,200	43,100
Xylene - o	41,000	42,300	43,200
Xylene - p	40,800	42,200	43,100
Total xylene	40,800	42,200	43,100
Methyl tertiary-Butyl ether (MTBE)	74,600	74,800	75,100
Trichloroethene	120	120	120
Tetrachloroethene	1,400	1,400	1,400
1,1,1-Trichloroethane	140,000	140,000	140,000
1,1,1,2-Tetrachloroethane	1,400	1,400	1,400
1,1,2,2-Tetrachloroethane	1,400	1,400	1,400
Carbon Tetrachloride	886	923	950
1,2-Dichloroethane	29	29	29
Vinyl Chloride	3.5	3.5	3.5
1,2,4-Trimethylbenzene	250	250	250
1,3,5-Trimethylbenzene	NR	NR	NR
Semi-Volatile Organic Compounds			
Acenaphthene	14,800	14,800	14,800
Acenaphthylene	14,800	14,800	14,800
Anthracene	74,100	74,100	74,100
Benzo(a)anthracene	29	29	29
Benzo(a)pyrene	10	10	10
Benzo(b)fluoranthene	7	7	7
Benzo(g,h,i)perylene	640	640	640
Benzo(k)fluoranthene	190	191	191
Chrysene	57	57	57
Dibenzo(a,h)anthracene	0.57	0.57	0.58
Fluoranthene	3,100	3,100	3,100
Fluorene	9,900	9,900	9,900
Indeno(1,2,3-cd)pyrene	82	82	82
Naphthalene	4,900	4,900	4,900
Phenanthrene	3,100	3,100	3,100
Pyrene	7,400	7,400	7,400
Phenol	440*	690*	1,300*
Total Petroleum Hydrocarbons			
Aliphatic hydrocarbons EC ₅ -EC ₈	570,000 (304)	590,000	600,000
Aliphatic hydrocarbons >EC ₉ -EC ₈	600,000	610,000	620,000
Aliphatic hydrocarbons >EC ₉ -EC ₁₀	13,000	13,000	13,000
Aliphatic hydrocarbons >EC ₁₀ -EC ₁₂	13,000	13,000	13,000
Aliphatic hydrocarbons >EC ₁₂ -EC ₁₈	13,000	13,000	13,000
Aliphatic hydrocarbons >EC ₁₈ -EC ₃₅	250,000	250,000	250,000
Aliphatic hydrocarbons >EC ₃₅ -EC ₄₄	250,000	250,000	250,000
Aromatic hydrocarbons >EC ₈ -EC ₁₀	5,000	5,000	5,000
Aromatic hydrocarbons >EC ₁₀ -EC ₁₂	5,000	5,000	5,000
Aromatic hydrocarbons >EC ₁₂ -EC ₁₈	5,000	5,000	5,000
Aromatic hydrocarbons >EC ₁₈ -EC ₂₁	3,800	3,800	3,800
Aromatic hydrocarbons >EC ₂₁ -EC ₃₅	3,800	3,800	3,800
Aromatic hydrocarbons >EC ₃₅ -EC ₄₄	3,800	3,800	3,800
Minerals			
Asbestos	Stage 1 test – No asbestos detected with ID; Stage 2 test - <0.001% dry weight (exceedance of either equates to an exceedance of the GAC) ¹		
Notes:			
* Generic assessment criteria not calculated owing to low volatility of substance and therefore no pathway, or an absence of toxicological data.			
NR - SAC for 1,3,5-trimethylbenzene is not recorded owing to the lack of toxicological data. SAC for 1,2,4-trimethylbenzene may be used			
EC - equivalent carbon. GRAC - groundwater assessment criteria. SAC - soil assessment criteria.			
* The GAC for Phenol is based on a threshold which is protective of direct contact (SC050021/Phenol SGV report)			
Public open space (res) and (park) GAC are based on the exposure parameters detailed within SP1010 "Development of Category 4 Screening Levels for Assessment of Land affected by Contamination", Final, 20th December 2013			
The SAC for organic compounds are dependent on Soil Organic Matter (SOM) (%) content. To obtain SOM from total organic carbon (TOC) (%) divide by 0.58. 1% SOM is 0.58% TOC. DL Rowell Soil Science: Methods and Applications, Longmans, 1994.			
SAC for TPH fractions, PAHs naphthalene, acenaphthene and acenaphthylene, BTX and trimethylbenzene compounds were produced using an attenuation factor for the indoor air inhalation pathway of 10 to reduce conservatism associated with the vapour inhalation pathway, section 10.1.1, SR3.			
(VALUE IN BRACKETS)	The SAC has been set as the model calculated SAC with the saturation limit shown in brackets.		

GENERIC ASSESSMENT CRITERIA FOR PHYTOTOXIC EFFECTS

Several compounds can inhibit plant growth; hence it is important to have generic assessment criteria (GAC) to promote healthy plant growth. In the absence of other published GAC, the GAC have been obtained from legislation (UK and European) and guidance related to the use of sewage sludge on agricultural fields.

The Council of European Communities Sewage Sludge Directive (86/278/EEC) dated 1986, has been transposed into UK law by Statutory Instrument No. 1263, The Sludge (use in Agriculture) Regulations 1989 (Public Health England, Wales and Scotland), as amended in 1990 and The Sludge (use in Agriculture) Regulations (Northern Ireland) SR No, 245, 1990. In addition the Department of Environment (DoE) produced a Code of Practice (CoP) (Updated 2nd Edition) in 2006 which provided guidance on the application of sewage sludge on agricultural land (however the status of this document is unclear as it is on the archive section of the Defra website).

The directive seeks to encourage the use of sewage sludge in agriculture and to regulate its use in such a way as to “**prevent harmful effects on soil, vegetation, animals and man**”. To this end, it prohibits the use of untreated sludge on agricultural land unless it is injected or incorporated into the soil. Treated sludge is defined as having undergone “biological, chemical or heat treatment, long-term storage or any other appropriate process so as significantly to reduce its fermentability and the health hazards resulting from its use”. To provide protection against potential health risks from residual pathogens, sludge must not be applied to soil in which fruit and vegetable crops are growing, or less than ten months before fruit and vegetable crops are to be harvested. Grazing animals must not be allowed access to grassland or forage land less than three weeks after the application of sludge.

The specified limits of concentrations of selected elements in soil are presented in Table 4 of the updated 2nd Edition of the DoE Code of Practice and are designed to protect plant growth. It is noted that these values are more stringent than the values set in current UK regulations. However since they were amended following recommendations from the Independent Scientific Committee in 1993. (MAFF/DOE 1993). The GAC are presented in Table 1.

Table 1: Generic assessment criteria

Determinant	Generic assessment criteria (mg/kg)			
	pH 5.0 < 5.5	pH 5.5 < 6.0	pH 6.0 < 7.0	pH >7.0
Zinc	200	200	200	300
Copper	80	100	135	200
Nickel	50	60	75	110
Lead	300	300	300	300
Cadmium	3	3	3	3
Mercury	1	1	1	1
Note: Only compounds with assessment criteria documented within the Directive 86/278/EEC have been included, although criteria for 5 additional compounds have been presented within the 2006 CoP.				