

8. CABLE PERCUSSION BOREHOLE LOGS

18/3086 - Issue 02 Page 10 of 15









BH201

Borehole No

Project

Longford Place, 1 Triton Square

Job No	Date Started		Ground Level (mOD)	Co-Ordinates	Final Depth
18/3086	Date Completed	13/02/18	28.32	E 529074.3 N 529074.3	8.15m

Client

Lendlease/British Land Property Management Ltd

	BOREHOLE SUMMARY									
Top (m)	Base (m)	Type	Date Started	Date Ended	Crew	Logged By	Core Barrel (mm)	Core Bit	Plant Used/ Method	SPT Hammer Reference
0.00 1.20	1.20 8.15	IP CP	12/02/2018 13/02/2018	12/02/2018 13/02/2018	GM GM	JP JP			Hand Excavated Dando 4000	WW1

WATER STRIKES				WATER	R ADDED	CHIS	ELLIN	G / SLOW I	DRILLING	
Strike at (m)	Rise to (m)	Time to Rise (min)	Casing Depth (m)	Sealed (m)	From (m)	To (m)	From (m)	To (m)	Duration (hr)	Remarks
					2.20	6.90				

НС	DLE	CA	CASING		
Depth (m)	epth (m) Diameter (mm)		Diameter (mm)		
0.00 8.15	150 150	0.00 7.50	150 150		

ROTARY FLUSH DETAIL								
From (m) To (m) Flush Type Flush Return (%) Flush Colou								

	INSTALLATION DETAILS									
Type	Diameter (mm)	Depth of Installation (m)	Top of Response Zone (m)	Bottom of Response Zone (m)	Date of Installation					
SPGW	50	7.20	4.20	7.20	13/02/2018					

	BACKFILL DETAILS								
	Top Bottom (m)		Material	Backfill Date					
0 4	.00 .30 .20 .20	0.30 4.20 7.20 8.15	Concrete / Flush Cover Bentonite Pellets Pea Shingle Bentonite Pellets	13/02/2018					

From (m)	To (m)	Blows	Recovery (%)

ROTARY RECOVERY

BACKFILL DETAILS							
Top (m)	Bottom (m)	Material	Backfill Date				
0.00 0.30 4.20 7.20	0.30 4.20 7.20 8.15	Concrete / Flush Cover Bentonite Pellets Pea Shingle Bentonite Pellets	13/02/2018				

NAGS





BH201

Borehole No

Project

Longford Place, 1 Triton Square

Job No	Date Started	12/02/18	Ground Level (mOD)	Co-Ordinates	Final Depth
18/3086	Date Completed	13/02/18	28.32	E 529074.3 N 529074.3	8.15m

Client

Lendlease/British Land Property Management Ltd

		PROGR	ESS					SPT DETAILS	8	
Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Remarks	Туре	Depth (m)	N Value	Blow Count / 75mm	Casing Depth (m)	Water Depth (m)
L UXO surve collapsing at the	ental Sample (Tub, V biameter Undisturbed biameter Thin Wall Undisturbed biameter Thin Wall U Sample, B-Bulk Sam DE, W-Watter Sample O DETAILS ippe Piezometer water Monitor Stand froundwater Monitor S	ial, Jar) Sample Sample Sample Jel, Large Bulk: Sample Jel, LB Large Bulk: Sample Jel, LB Large Bulk: Sample Jel, LB Large Bulk: Dipe Jel, LB Large Bulk: Dipe Dipe Dipe Dipe Dipe Dipe Dipe Dipe	Sample, BLK-Block S iston Sample TYPES Inspection Pit, TP-T- Cable Percussion, R -Dynamic Sampling.	Water Added Water Added and 3.70m depth. Borehole and 3.70m depth. Borehole .	S C C C C C S	1.70 2.70 3.70 4.70 5.70 6.70 7.70	N15 N50/0.285 N50/0.285 N40 N29 N19 N21	2, 2/2, 2, 4, 7 2, 5/10, 12, 16, 12 2, 4/8, 12, 15, 15 2, 3/6, 8, 12, 14 2, 3/6, 6, 8, 9 2, 3/3, 4, 5, 7 2, 3/5, 5, 5, 6	1.70 2.70 3.70 4.70 5.70 6.70 7.50	Dry 2.50 3.20 4.00 4.70 5.80 Dry

Report ID: SUMMARY SHEET 2 || Project: 183086 - TRITON SQUARE.GPJ || Library: CONCEPT LIBRARY - 2017-NEW.GLB || Date: 20 March 2018

Issue No: 02 Checked By: AN

Approved By: OS

Log Print Date & Time:

20/03/2018 09:41











BH201

Borehole No

Project

Longford Place, 1 Triton Square

Job No	Date Started		Ground Level (mOD)	Co-Ordinates	Final Depth
18/3086	Date Completed	13/02/18	28.32	E 529074.3 N 529074.3	8.15m
Client				Method/	Sheet
Lendleas	se/British Land	Plant Used Cable Percussion	1 of 1		

PRO		ESS			Sī	TRATA	SAMPLI	ES & T	ESTS		,tue
Date	Casing	Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth (m)	Type No	Test Result	Field Records	Instrument/
12/02/18		Dry			(0.86)	Dark brown slightly silty gravelly fine to medium SAND with rootlets. Gravel comprises fine to medium subangular to subrounded flint, brick ceramic, plastic and glass fragments.	0.30	ES01 B02		VOC 0.1ppm	0 4
12/02/18 13/02/18		Dry Dry	27.46		- 0.86 - - -	(MADE GROUND) Yellowish brown silty sandy GRAVEL. Gravel comprises subangular to subrounded fine to medium flint, brick, concrete, ceramic	1.00	ES03 B04		VOC 0.0ppm	
	• • •				(1.34)	and metal fragments. Sand is fine to coarse. (MADE GROUND)	1.70 1.70-2.15 2.00	D05 ES06	N15	2, 2 / 2, 2, 4, 7 VOC 0.0ppm	
13/02/18	2.70	2.20	26.12	**************************************	_	Very dense, yellowish brown silty sandy GRAVEL. Gravel is subangular to subrounded fine to coarse flint. (RIVER TERRACE DEPOSITS)	2.40-2.50 2.50 2.70	B07 ES08	N50/ 285 mm	VOC 0.1ppm 2, 5 / 10, 12, 16, 12	
				X () X (0 X 0 X 0 0 X	- - -		2.70-3.15	D09			
13/02/18 13/02/18	3.40 3.70	3.00 3.20		0 X 0 X 8 X 8 X 8 X 8 X	- - - - -		3.40 3.50 3.70	B10 ES11	N50/ 285 mm	VOC 0.0ppm 2, 4 / 8, 12, 15, 15	
				*0x=*0x	- -		3.70-4.15	D12			
13/02/18	4.40	4.00		× × × × × × × × × × × × × × × × × × ×	- -		4.40 4.50	B13 ES14		VOC 0.0ppm	
				* 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	(4.70)	4.70 becoming dense	4.70 4.70-5.15	D15	N40	2, 3 / 6, 8, 12, 14	
13/02/18 13/02/18	5.40 5.50	4.20 4.70			- - - - - - -		5.40 5.50 5.70 5.70-6.15	B16 ES17 D18	N29	VOC 0.0ppm 2, 3 / 6, 6, 8, 9	
13/02/18	6.40	5.20		0.30	- - -		6.40	B19			
13/02/18	6.70	5.80	21.42	0×503	6.90	Stiff, brownish grey slightly micaceous	6.50 6.70 6.70-7.15	ES20 D21	N19	VOC 0.0ppm 2, 3 / 3, 4, 5, 7	
13/02/18	7.30	Dry			 - -	CLAY. (THAMES GROUP: LONDON CLAY	7.30	ES22		VOC 0.0ppm	
					(1.25)	FORMATION?)	7.40 7.70 7.70-8.15	B23 D24	N21	2, 3 / 5, 5, 5, 6	
13/02/18	7.50	Dry	20.17		8.15	End of Borehole	ŧ				
					- - -						
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BH202

Borehole No

Project

Longford Place, 1 Triton Square

Job No	Date Started		Ground Level (mOD)	Co-Ordinates	Final Depth
18/3086	Date Completed	15/02/18	28.02	E 529072.6 N 182424.8	8.15m

Client

Lendlease/British Land Property Management Ltd

	BOREHOLE SUMMARY											
Top (m)	Base (m)	Type	Date Started	Date Ended	Crew	Logged By	Core Barrel (mm)	Core Bit	Plant Used/ Method	SPT Hammer Reference		
0.00 1.20	1.20 8.15	IP CP	13/02/2018 14/02/2018	13/02/2018 14/02/2018	GM GM	JP JP			Hand Excavated Dando 4000	WW1		

WATER STRIKES				WATER	R ADDED	CHISELLING / SLOW DRILLING				
Strike at (m)	Rise to (m)	Time to Rise (min)	Casing Depth (m)	Sealed (m)	From (m)	To (m)	From (m)	To (m)	Duration (hr)	Remarks
					2.50	6.80				

НС	DLE	CASING			
Depth (m)	Diameter (mm)	Depth (m)	Diameter (mm)		
0.00 8.15	150 150	0.00 7.00	150 150		

ROTARY FLUSH DETAIL										
From (m) To (m) Flush Type Flush Return (%) Flush Colo										

	INSTALLATION DETAILS									
Type	Diameter (mm)	Depth of Installation (m)	Top of Response Zone (m)	Bottom of Response Zone (m)	Date of Installation					
SPGW	50	7.00	4.00	7.00	15/02/2018					

	BACKFILL DETAILS										
Top (m)	Bottom (m)	Material	Backfill Date								
0.00 0.30 4.00 7.00	0.30 4.00 7.00 8.15	Concrete / Flush Cover Bentonite Pellets Pea Shingle Bentonite Pellets	15/02/2018								

AN

From (m)	10 (m)	Blows	Recovery (70)

ROTARY RECOVERY

Checked By:

Approved By: OS Log Print Date & Time:

05/06/2018 10:13



Issue No:

03







BH202

Borehole No

Project

Longford Place, 1 Triton Square

Job N	0	Date Started	13/02/18	Ground Level (mOD)	Co-Ordinates	Final Depth
1	18/3086	Date Completed	15/02/18	28.02	E 529072.6 N 182424.8	8.15m

Client

Lendlease/British Land Property Management Ltd

		PROGR	ESS					SPT DETAILS	8	
Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)	Remarks	Туре	Depth (m)	N Value	Blow Count / 75mm	Casing Depth (m)	Water Depth (m)
13/02/18 13/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18 14/02/18	0.00 1.20 1.20 2.50 3.40 3.70 4.40 4.50 4.70 5.40 5.50 5.70 6.40 6.50 6.70 7.30 8.15	2.50 3.40 3.70 4.40 4.50 4.70 5.40 5.50 5.70 6.40 6.50 6.70 7.00 7.00	Dry Dry Dry 2.00 2.20 2.60 3.00 3.20 3.60 4.00 4.20 4.40 5.00 5.50 Dry Dry	Water Added	S C C C C C C	1.70 2.70 3.70 4.70 5.70 6.70 7.70	N17 N50/0.225 N50 N50/0.21 N36 N16 N16	2, 3/3, 3, 5, 6 5, 8/14, 16, 20 3, 6/9, 10, 14, 17 6, 12/16, 19, 15 2, 3/7, 9, 9, 11 4, 4/3, 4, 4, 5 2, 3/3, 4, 4, 5	2.70 3.70 4.70 5.70 6.70 7.00	Dry 2.00 2.60 3.60 4.40 5.80 Dry
I. UXO surve 2. Reinforced depth (Ø6mm 3. Borehole b 4. Water level 4. Water level SAMPLES ES - Environ U - 100mm1 UT - 100m	concrete encount rebar mesh 200m lowing in the grav before installation to the properties of the prope	ered on SE side of the side of	Sample, BLK-Block Siston Sample and Type Siston Sample Stryes		Kev					

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Borehole No

BH202

Telephone: 020 88 112 880_Fax: 020 88 112 881 E-mail: si@conceptconsultants.co.uk

Project

Longford Place, 1 Triton Square

	Date Started		Ground Level (mOD)	Co-Ordinates	Final Depth
18/3086	Date Completed	15/02/18	28.02	E 529072.6 N 182424.8	8.15m
Client Lendleas	e/British Land	Propert	y Management Ltd	Method/ Plant Used Cable Percussion	Sheet 1 of 1

PRC)GRI	ESS			ST	TRATA	SAMPLI	ES & T	ESTS		nt/
Date	Casing	Water	Level (mOD)	Legend	Depth (Thickness)	Strata Description	Depth (m)	Type No	Test Result	Field Records	△ [∇] Instrument/
13/02/18		Dry	27.77		0.25	Pavement slab (0.08m) over yellowish brown silty fine to medium SAND. (MADE GROUND) Greyish brown slightly gravelly silty fine to coarse SAND with occasional rootlets. Gravel	0.30 0.35 0.50	ES01 B02		VOC 0.1ppm Concrete encountered on SE side of pit between 0.25m and 0.55m	
13/02/18 14/02/18		Dry Dry			(2.25)	comprises subangular to subrounded fine to coarse flint, brick, concrete and glass fragments. (MADE GROUND) 0.28 with a plastic membrane	1.70	ES03	N17	depth VOC 0.0ppm 2, 3 / 3, 3, 5, 6	
					- - - - -		1.70-2.15 - 2.00 - 2.40	D04 ES05 B06		VOC 0.0ppm	ı
14/02/18	2.50	2.00	25.52		2.50	Very dense, yellowish brown slightly sandy GRAVEL. Gravel is subangular to subrounded fine to coarse flint. Sand is fine to coarse. (RIVER TERRACE DEPOSITS)	2.50 2.70 2.70 2.70-3.15	ES07	N50/ 225 mm	VOC 0.0ppm 5, 8 / 14, 16, 20	
14/02/18 14/02/18	3.40 3.70	2.20 2.60		0.000	- - - - -	(REVER PERIODE DEL OSTIS)	3.40 3.50 3.70 3.70-4.15	B09 ES10	N50	VOC 0.0ppm 3, 6 / 9, 10, 14, 17	
14/02/18 14/02/18 14/02/18	4.40 4.50 4.70	3.00 3.20 3.60			(4.30)		4.40 4.50 4.70	B12 ES13	N50/ 210 mm	VOC 0.0ppm 6, 12 / 16, 19, 15	
14/02/18 14/02/18 14/02/18	5.40 5.50 5.70	4.00 4.20 4.40			- - - - - - -	5.70 becoming dense	4.70-5.15 - 5.40 - 5.50 - 5.70 - 5.70-6.15	D14 B15 ES16 D17	N36	VOC 0.0ppm 2, 3 / 7, 9, 9, 11	
14/02/18 14/02/18 14/02/18	6.40 6.50 6.70	5.00 5.50 5.80	21.22		6.80	Stiff, brownish grey slightly micaceous	- 6.40 - 6.50 - 6.70 - 6.70-7.15	B18 ES19 D20	N16	VOC 0.0ppm 4, 4 / 3, 4, 4, 5	
14/02/18	7.00	Dry			(1.35)	CLÁY. (THAMES GROUP: LONDON CLAY FORMATION?)	7.30 7.40 7.70	ES21 B22	N16	VOC 0.0ppm 2, 3 / 3, 4, 4, 5	4
14/02/18	7.00	Dry	19.87		- - - 8.15	End of Borehole	7.70-8.15	D23			
					- - - - -		- - - -				
					- - - - -		- - - - - -				
					- - - - - -		- - - - - -				
					-		-				

Report ID: CONCEPT CABLE PERCUSSION | Project: 183086 - TRITON SQUARE.GPJ | Library: CONCEPT LIBRARY - 2017-NEW.GLB | Date: 20 March 2018

Issue No: 02

Checked By: AN

Approved By: OS

Log Print Date & Time:

20/03/2018 09:42





SPT Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Southern Testing Laboratories

Keeble House Stuart Way **East Grinstead West Sussex**

RH19 4QA

SPT Hammer Ref: WW1

Test Date:

11/09/2017

Report Date:

11/09/2017

File Name:

WW1.spt

Test Operator:

NPB

Instrumented Rod Data

Diameter d_r (mm): 54

Wall Thickness t_r (mm): 6.0

Assumed Modulus Ea (GPa): 200 Accelerometer No.1:

6458

Accelerometer No.2:

9607

SPT Hammer Information

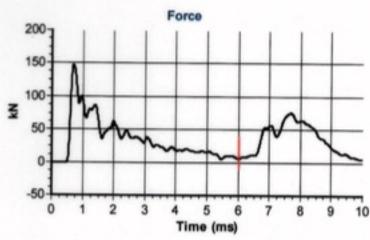
Hammer Mass m (kg):

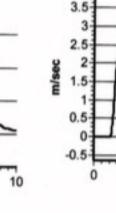
Falling Height h (mm): 760

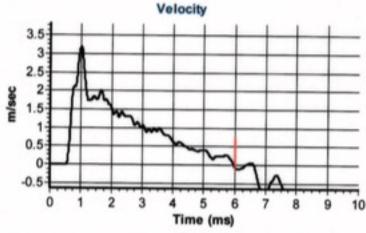
SPT String Length L (m): 14.5

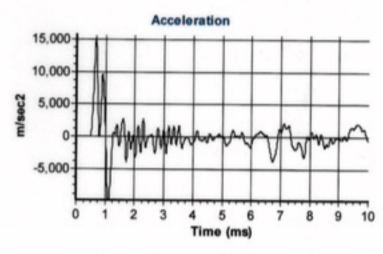
Comments / Location

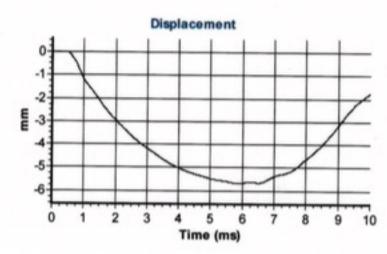
CHARLWOODS











Calculations

Area of Rod A (mm2):

905

Theoretical Energy E_{theor} (J):

473

301

Measured Energy E_{meas} (J):

Energy Ratio E_r (%):

64

Signed: **Neil Burrows**

Title:

Field Operations Manager

The recommended calibration interval is 12 months

9. HAND EXCAVATED TRIAL PIT LOGS

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HP101

Trial Pit No

Project

Longford Place, 1 Triton Square

T.I. NI.	D + C+ + 1	1.1/02/10	C111 (OD)	C- O-lit	Einel Donah
Job No	Date Started	14/02/18	Ground Level (mOD)	Co-Ordinates	Final Depth
18/3086	Date Completed	14/02/18	28.27	E 529015.2 N 182383.1	1.20m
Client				Method/	Sheet
Lendleas	e/British Land	Propert	y Management Ltd	Plant Used Hand Excavated	1 of 1

				STRATA	SAMPLI	ES & T	TESTS				
Water	Level (mOD)	Legend	Depth (Thickness)	Stata Description	Depth	Type No	Test Result	Field Records			
	28.07		- (0.20) 0.20	Pavement slab (0.08m) over yellowish brown silty fine to medium SAND. (MADE GROUND)	-						
		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		Reinforced CONCRETE (Ø6mm rebar mesh).	†						
	27.99		0.28	Yellowish brown clayey sandy GRAVEL. Gravel comprises subangular to subrounded fine to coarse flint, brick and concrete fragments. Sand is fine to coarse. (MADE GROUND)	- 0.30	ES01		VOC 0.0ppm			
n 2018			(0.92)		- 0.70	B02					
VEW. GLB Date: 20 Marc	27.07		- 1.20		-1.00	ES03		VOC 0.0ppm			
1. 183080 - I KI ON SQUARE.GFU LIDIAIY: CONCEPT LIBRART - 20 I ANEW.GLB Date: 20 Match 20 IS	27.07		- 1.20	End of Trial Pit	-						

GENERAL REMARKS

- Weather was partially cloudy.
 Pit was dry and stable.
 Pit dimensions: 0.30m x 0.30m x 1.20m depth.
 Pit backfilled with soil arisings and made up good upon completion.

Log Print Date & Time: 20/03/2018 09:42 Drilled By: ST Approved By: OS Issue No: 02 Logged By: JP Checked By: AN







HP102

Trial Pit No

Project

Longford Place, 1 Triton Square

Job No	Date Started	14/02/18	Ground Level (mOD)	Co-Ordinates	Final Depth
18/3086	Date Completed	14/02/18	28.26	E 529043.2 N 182399.3	1.20m
Client				Method/	Sheet
Lendleas	e/British Land	Propert	y Management Ltd	Plant Used Hand Excavated	1 of 1

				STRATA	SAMPLI	ES & 7	TESTS	
Water	Level (mOD)	Legend	Depth (Thickness)	Stata Description	Depth	Type No	Test Result	Field Records
			- (0.20)	Pavement slab (0.08m) over yellowish brown silty fine to medium SAND. (MADE GROUND)	-			
	28.06		0.20	0.20 with a plastic membrane	}			
	27.98		0.28	CONCRETE.				
	27.86		(0.12)	Dark brown silty gravelly fine to coarse SAND. Gravel comprises subangular to subrounded fine to coarse flint, brick and concrete fragments. (MADE GROUND)	0.30	ES01		VOC 0.0ppm
Date: 20 March 2018			- (0.80)	Yellowish brown silty sandy GRAVEL. Gravel comprises subangular to subrounded fine to coarse flint and brick fragments. Sand is fine to coarse. (MADE GROUND)	- 0.70 - 1.00	B02		VOC 0.0ppm
NEW.GLB 1	27.06		1.20		-			
ct: 183086 - TRITON SQUARE.GPJ Library: CONCEPT LIBRARY - 2017-NEW.GLB Date: 20 March 2018			-	End of Trial Pit	-			

GENERAL REMARKS

- Weather was partially cloudy.
 Pit was dry and stable.
 Pit dimensions: 0.30m x 0.30m x 1.20m depth.
 Pit backfilled with soil arisings and made up good upon completion.

Log Print Date & Time: 20/03/2018 09:42 Drilled By: ST Approved By: OS Issue No: 02 Logged By: JP Checked By: AN











HP103

Trial Pit No

Project

Longford Place, 1 Triton Square

Job No	2400 3041 004 15/02/10 1 11 11 11 11 11		Ground Level (mOD)	Co-Ordinates	Final Depth
18/3086	Date Completed	13/02/18	28.25	E 529064.0 N 182409.4	0.70m
Client	/D ::: 1 T 1	ъ .	3.5	Method/	Sheet
Lendleas	e/British Land	Propert	y Management Ltd	Plant Used Hand Excavated	1 of 1

				STRATA	SAMPLI	ES & T	TESTS	
Water	Level (mOD)	Legend	Depth (Thickness)	Stata Description	Depth	Type No	Test Result	Field Records
	28.15		(0.10) 0.10	Rubber surfacing (0.01m) over CONCRETE.				
	20.00		(0.15)	Greyish pink silty sandy GRAVEL. Gravel is subangular to subrounded fine to coarse igneous. (Type 1) (MADE GROUND)	-			
	28.00		0.25	Yellowish brown silty gravelly fine to coarse SAND with glass, porcelain and metal fragments. Gravel comprises subangular to subrounded fine to coarse flint, brick and concrete fragments. (MADE GROUND)	- 0.30	ES01		VOC 0.0ppm
			(0.45)		- 0.50	B02		
	27.55		0.70	End of Trial Pit	0.70	ES03		VOC 0.0ppm Pit was aborted at 0.70m depth (see Remarks)
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			-		-			(see remarks)
			_					
			-		-			
07 - 1 NAM - 1			-		_			
) 			-		_			
			-		_			
9.1 2.0 2.0 2.0 3.0 4.0 4.0 5.0 5.0 6.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7.0 7			-		_			
. וסטטסס - ו או רטוי סעטאאב. סדט בוטומוץ. טטויטבדין בוטאאא ו - צט וריאבאי. טבט Date. צט ואמומו צט וס			-					
2								

GENERAL REMARKS

- Weather was partially cloudy.
 Pit was dry and stable.
 Pit was aborted at 0.70m depth due to presence of concrete.
 Pit dimensions: 0.30m x 0.30m x 0.70m depth.
 Pit backfilled with soil arisings and made up good upon completion.

Log Print Date & Time: 20/03/2018 09:42 Drilled By: ST Issue No: 02 Checked By: AN Approved By: OS Logged By: JP

10. INSTRUMENTATION MONITORING RESULTS

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									Sheet 1 of 1
Borehole	Depth of Installation (mbgl)	Date of Installation	Type	Top (mbgl)	Bottom (mbgl)	Date & Time	Water Level (mbgl)	Water Level (mOD)	Remarks
BH201	7.20	13/02/2018	SPGW	4.20	7.20	27/02/2018 11:37:00	5.70	22.62	
	7.20	13/02/2018	SPGW	4.20	7.20	06/03/2018 10:45:00	5.68	22.64	
BH202	7.00	15/02/2018	SPGW	4.00	7.00	27/02/2018 12:28:00	5.53	22.49	
	7.00	15/02/2018	SPGW	4.00	7.00	06/03/2018 09:50:00	5.53	22.49	

KEY

SPIE - Standpipe Piezometer SPGW - Groundwater Monitor Standpipe SPG/GW - Gas / Groundwater Monitor Standpipe VWP - Vibrating Wire Piezometer



Telephone: 020 88 112 880_Fax: 020 88 112 881 E-mail: si@conceptconsultants.co.uk







GROUNDWATER MONITORING

Job No: 18/3086

Longford Place, 1 Triton Square Project:

Client: Lendlease/British Land Property Management

Ltd

Borehole	Depth of Installation (mbgl)	Date of Installation	Туре	Top (mbgl)	Bottom (mbgl)	Date & Time	Water Level (mbgl)	Water Level (mOD)	Remarks
BH101	2.40	13/04/2017	SPG/GW	1.00	2.40	28/04/2017 10:35:00	Dry		
	2.40	13/04/2017	SPG/GW	1.00	2.40	05/05/2017 11:10:00	Dry		
	2.40	13/04/2017	SPG/GW	1.00	2.40	11/05/2017 12:30:00	Dry		
	2.40	13/04/2017	SPG/GW	1.00	2.40	18/05/2017 10:32:00	Dry		
	2.40	13/04/2017	SPG/GW	1.00	2.40	27/02/2018 12:06:00	Dry		
	2.40	13/04/2017	SPG/GW	1.00	2.40	06/03/2018 09:33:00	Dry		
	7.85	13/04/2017	SPGW	3.40	7.85	26/04/2017 10:40:00	5.85	22.14	
	7.85	13/04/2017	SPGW	3.40	7.85	05/05/2017 11:15:00	5.76	22.23	
	7.85	13/04/2017	SPGW	3.40	7.85	11/05/2017 12:30:00	5.85	22.14	
	7.85	13/04/2017	SPGW	3.40	7.85	18/05/2017 10:30:00	5.85	22.14	
	7.85	13/04/2017	SPGW	3.40	7.85	27/02/2018 12:05:00	5.74	22.25	
	7.85	13/04/2017	SPGW	3.40	7.85	06/03/2018 09:32:00	5.72	22.27	
CH01	1.73	26/04/2017	SPIE	0.50	1.73	03/05/2017 10:27:00	1.03	22.04	
	1.73	26/04/2017	SPIE	0.50	1.73	05/05/2017 10:00:00	1.01	22.06	
	1.73	26/04/2017	SPIE	0.50	1.73	11/05/2017 13:14:00	0.95	22.12	
	1.73	26/04/2017	SPIE	0.50	1.73	18/05/2017 10:51:00	1.01	22.06	
CH02	2.13	21/04/2017	SPIE	0.51	2.13	03/05/2017 10:20:00	0.79	22.28	
	2.13	21/04/2017	SPIE	0.51	2.13	05/05/2017 09:11:00	0.77	22.30	
	2.13	21/04/2017	SPIE	0.51	2.13	11/05/2017 13:35:00	0.78	22.29	
	2.13	21/04/2017	SPIE	0.51	2.13	18/05/2017 10:53:00	0.76	22.31	
CH03	2.05	26/04/2017	SPIE	0.62	2.05	03/05/2017 10:00:00	0.67	22.40	
	2.05	26/04/2017	SPIE	0.62	2.05	05/05/2017 08:23:00	0.69	22.38	
	2.05	26/04/2017	SPIE	0.62	2.05	11/05/2017 13:52:00	0.64	22.43	
	2.05	26/04/2017	SPIE	0.62	2.05	18/05/2017 10:59:00	0.64	22.43	

KEY

SPIE - Standpipe Piezometer SPGW - Groundwater Monitor Standpipe SPG/GW - Gas / Groundwater Monitor Standpipe VWP - Vibrating Wire Piezometer



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GROUNDWATER MONITORING

Job No: 17/2961

1 Triton Square, Ground Investigation, Phase 1 **Project:**

Client: British Land

CONCEPT **GROUNDWATER - IN SITU ANALYSIS & SAMPLING** Site: Triton Square Job No.: 18/3086 Date: 27/02/2018 Technician: VC+LT Sampling method: Inertial Pump Base of Top of Depth to well slotted GW BH No. (mbgl) (mbgl) (mbgl) **BH101** 7.76 5.74 Sample Detail Purge Redox Volume DO SPC **Potential** (Colour/Odour/ Temp Time **Turbidity**) (°C) (mg/L) (ms/cm) (mV) (L) рΗ 2.0 12:10 14.1 5.39 0.88 7.25 154.5 **Turbid Brown** 4.0 14.8 3.02 0.89 7.07 157.4 **Turbid Brown** 8.0 14.9 2.36 0.89 7.06 153.7 **Turbid Brown** 12.0 15.3 2.36 0.89 7.07 151.0 **Turbid Brown**

CONCEPT **GROUNDWATER - IN SITU ANALYSIS & SAMPLING** Site: Triton Square Job No.: 18/3086 Date: 27/02/2018 Technician: VC+LT Sampling method: Inertial Pump Base of Top of Depth to well slotted GW BH No. (mbgl) (mbgl) (mbgl) **BH201** 7.20 4.20 5.70 Sample Detail Purge Redox Volume DO SPC **Potential** (Colour/Odour/ Temp Time **Turbidity**) (L) (°C) (mg/L) (ms/cm) (mV) рΗ 1.5 11:37 9.4 9.10 0.52 7.58 153.8 **Turbid Brown** 3.0 12.7 9.61 0.58 7.50 147.3 **Turbid Brown** 6.0 13.5 7.69 0.58 7.50 147.1 **Turbid Brown** 9.0 13.4 8.03 0.58 7.51 144.6 **Turbid Brown**

CONCEPT **GROUNDWATER - IN SITU ANALYSIS & SAMPLING** Site: Triton Square Job No.: 18/3086 Date: 27/02/2018 Technician: VC+LT Sampling method: Inertial Pump Base of Top of Depth to well slotted GW BH No. (mbgl) (mbgl) (mbgl) BH202 7.00 4.00 5.53 Sample Detail Purge Redox Volume DO SPC **Potential** (Colour/Odour/ Temp Time **Turbidity**) (L) (°C) (mg/L) (ms/cm) (mV) рΗ 1.5 12:33 13.1 6.50 1.09 7.20 158.2 **Turbid Brown** 3.0 13.8 4.49 1.12 7.08 158.3 **Turbid Brown** 6.0 14.1 3.20 1.12 7.04 157.7 **Turbid Brown** 9.0 14.2 2.84 1.10 7.02 156.2 **Turbid Brown**

CONCEPT **GROUNDWATER - IN SITU ANALYSIS & SAMPLING** Site: Triton Square Job No.: 18/3086 Date: 06/03/2018 Technician: VC+LT Sampling method: Inertial Pump Base of Top of Depth to well slotted GW Water quality meter stopped working (mbgl) BH No. (mbgl) (mbgl) on site, no water quality readings taken BH101 7.76 5.72 Purge Redox Sample Detail Volume Temp DO SPC **Potential** (Colour/Odour/ Time **Turbidity**) (°C) (mg/L) (ms/cm) рΗ (mV) (L) 2.0 **Turbid Brown** Slightly Turbid Brown 4.0 8.0 Slightly Turbid Brown 12.0 Slightly Turbid Brown

CONCEPT **GROUNDWATER - IN SITU ANALYSIS & SAMPLING** Site: Triton Square Job No.: 18/3086 Date: 06/03/2018 Technician: VC+LT Sampling method: Inertial Pump Base of Top of Depth to well slotted GW Water quality meter stopped working (mbgl) BH No. (mbgl) (mbgl) on site, no water quality readings taken BH201 7.20 4.20 5.68 Purge Redox Sample Detail Volume Temp DO SPC **Potential** (Colour/Odour/ Time **Turbidity**) (°C) (mg/L) (ms/cm) рΗ (mV) (L) 2.0 **Turbid Brown** 4.0 **Turbid Brown** 8.0 **Turbid Brown** 12.0 **Turbid Brown**

CONCEPT **GROUNDWATER - IN SITU ANALYSIS & SAMPLING** Site: Triton Square Job No.: 18/3086 Date: 06/03/2018 Technician: VC+LT Sampling method: Inertial Pump Base of Top of Depth to well slotted GW Water quality meter stopped working BH No. (mbgl) (mbgl) (mbgl) on site, no water quality readings taken BH202 7.00 4.00 5.53 Purge Redox Sample Detail Volume Temp DO SPC **Potential** (Colour/Odour/ Time **Turbidity**) (L) (°C) (mg/L) (ms/cm) рΗ (mV) 1.5 **Turbid Brown** 3.0 **Turbid Brown** 6.0 **Turbid Brown** 9.0 **Turbid Brown**

11. GEOTECHNICAL LABORATORY TEST RESULTS

18/3086 - Issue 02 Page 13 of 15

CONCEPT SITE INVESTIGATIONS

PARTICLE SIZE DISTRIBUTION

TEST REPORT

Site Name:	Triton Square		Job Number:	18/3086				
Client:	Lendlease/Brit	ish Land Prope	Date Reported:	12/03/2018				
Borehole No:	BH201	Sample Type/No.	В	07	Top Depth:	2.40 m	Bottom Depth:	2.50 m

Soil Description:

Orangish brown very sandy subangular to well rounded fine to coarse flint GRAVEL

BS Test	Sieves
Size (mm)	% Passing
75.000	100
63.000	100
50.000	100
37.500	100
28.000	92
20.000	83
14.000	74
10.000	63
6.300	51
5.000	47
3.350	39
2.000	32
1.180	28
0.600	21
0.425	13
0.300	5
0.212	2
0.150	1
0.063	0

Sedimentation						
(*if applicable)						
Size (mm)	% Passing					
0.020						
0.006						
0.002						

	CLAY							SIL	Г						SAND					GRAVEL					COBBLES									
						t		F			М		С	Ĺ		F		N	1			С		F			M			С	Ŧ	S		
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Method/type: Dry Sieving

BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.

Particle Pro	portions %
Cobbles	
Gravel	68.3
Sand	31.5
Silt and Clay	0.2





Remarks:

 Date - samples received:
 16/02/2018
 Checked by:
 KM

 Date - samples tested:
 07/03/2018
 Date:
 09/03/2018

Approved Signatories: L Griffin LG (Quality Mngr) – K Mazerant KM (Lab Mngr)

47-49 Brunel Road, London W3 7XR
Tel: 02087401553
Email: lab@conceptconsultants.co.uk

CONCEPT SITE INVESTIGATIONS

PARTICLE SIZE DISTRIBUTION

TEST REPORT

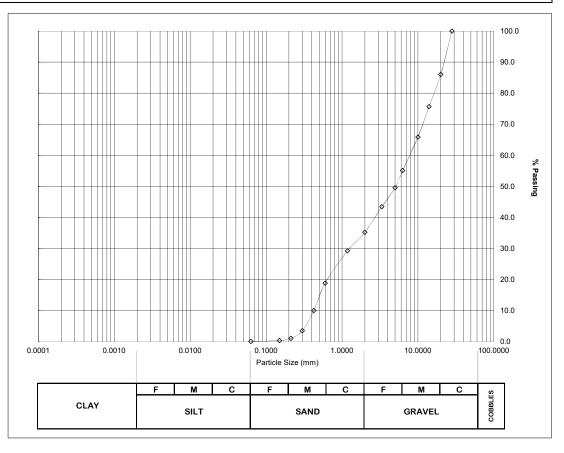
Site Name:	Triton Square						Job Number:	18/3086		
Client:	Lendlease/Brit	ish Land Prope	rty Manag	jement Ltc	I		Date Reported:	12/03/2018		
Borehole No:	Bottom Depth:	m								

Soil Description:

Light brown very sandy subangular to well rounded fine to coarse flint GRAVEL

BS Test	Sieves
Size (mm)	% Passing
75.000	100
63.000	100
50.000	100
37.500	100
28.000	100
20.000	86
14.000	76
10.000	66
6.300	55
5.000	50
3.350	43
2.000	35
1.180	29
0.600	19
0.425	10
0.300	4
0.212	1
0.150	0
0.063	0

Sedime	ntation									
(*if applicable)										
Size (mm)	% Passing									
0.020										
0.006										
0.002										



Method/type: Dry Sieving

BS 1377: Part 2: Clause 9.3: 1990 Determination of particle size distribution - dry sieving method.

Particle Pro	portions %
Cobbles	
Gravel	64.8
Sand	35.1
Silt and Clay	0.1





Remarks:

 Date - samples received:
 16/02/2018
 Checked by:
 KM

 Date - samples tested:
 07/03/2018
 Date:
 09/03/2018

Approved Signatories: L Griffin LG (Quality Mngr) – K Mazerant KM (Lab Mngr)

47-49 Brunel Road, London W3 7XR Tel: 02087401553 Email: lab@conceptconsultants.co.uk





Evangelos Kafantaris

Concept Site Investigations Unit 8 Warple Mews Warple Way London W3 0RF

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t: 01923 225404 **f:** 01923 237404

e: reception@i2analytical.com

Analytical Report Number: 18-78213

Replaces Analytical Report Number: 18-78213, issue no. 1

Project / Site name: Triton Square Samples received on: 07/03/2018

Your job number: 18-3086 Samples instructed on: 07/03/2018

Your order number: L1706 Analysis completed by: 14/03/2018

Report Issue Number: 2 **Report issued on:** 14/03/2018

Samples Analysed: 2 soil samples

Signed:

Jordan Hill Reporting Manager

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are : soils - 4 weeks from reporting

leachates - 2 weeks from reporting waters - 2 weeks from reporting asbestos - 6 months from reporting

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Your Order No: L1706

Lab Sample Number				920593	920594		
Sample Reference				BH201	BH201		
Sample Number				04	09		
Depth (m)				1.00	2.70-3.15		
Date Sampled				06/03/2018	06/03/2018		
Time Taken				None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	< 0.1	< 0.1		
Moisture Content	%	N/A	NONE	12	6.3		
Total mass of sample received	kg	0.001	NONE	0.77	0.33		

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.5	8.2		
Total Sulphate as SO ₄	%	0.005	MCERTS	0.114	0.025		
Water Soluble SO4 16hr extraction (2:1 Leachate							
Equivalent)	g/l	0.00125	MCERTS	0.052	0.026		
Water Soluble SO4 16hr extraction (2:1 Leachate							
Equivalent)	mg/l	1.25	MCERTS	52.3	26.0		
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	8.9	5.6		
Total Sulphur	%	0.005	MCERTS	0.053	0.009		
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	2.8	< 2.0		

Heavy Metals / Metalloids

Magnesium (water soluble)	mg/kg	5	NONE	8.8	< 5.0		
Magnocium (loachato oguivalent)	ma/l	2.5	NONE	4.4	- 2 5		





* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
920593	BH201	04	1.00	Brown loam and sand with gravel and vegetation.
920594	BH201	09	2.70-3.15	Light brown sand with gravel.





Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests. 2:1 extraction.	L082-PL	D	MCERTS
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES.	In-house method based on TRL 447	L038-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP- OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests""	L038	D	MCERTS
Total Sulphur in soil as %	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In-house method based on BS1377 Part 3, 1990, and MEWAM 2006 Methods for the Determination of Metals in Soil	L038	W	MCERTS
Water Soluble Nitrate (2:1) as N in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry.	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction.	L078-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

12. CHEMICAL LABORATORY TEST RESULTS

18/3086 - Issue 02 Page 14 of 15





Flora Elliston

Concept Site Investigations Unit 8 Warple Mews Warple Way London W3 ORF

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e: reception@i2analytical.com

Analytical Report Number: 18-76209

Project / Site name: 1 Triton Square Samples received on: 13/02/2018

Your job number: 18-3086 Samples instructed on: 15/02/2018

Your order number: CL1288 Analysis completed by: 22/02/2018

Report Issue Number: 1 **Report issued on:** 22/02/2018

Samples Analysed: 5 soil samples

Signed:

Jordan Hill Reporting Manager

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are : soils - 4 weeks from reporting

leachates - 2 weeks from reporting waters - 2 weeks from reporting asbestos - 6 months from reporting

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Lab Sample Number				909152	909153	909154	909155	909156
•				303132	303133	303131	303133	303130
Sample Reference				BH201	BH201	BH201	BH202	BH202
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.00	2.50	0.30	1.00
Date Sampled				12/02/2018	12/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken			_	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	20	6.6	8.1	11	12
Total mass of sample received	kg	0.001	NONE	1.4	1.6	1.9	1.4	1.4
_			-	-		_	_	
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	Chrysotile	-	-	Chrysotile	-
Asbestos in Soil	Туре	N/A	ISO 17025	Detected	Not-detected	-	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	< 0.001	-	-	< 0.001	-
Asbestos Quantification Total	%	0.001	ISO 17025	< 0.001	-	-	< 0.001	-
General Inorganics	1 .		1					
pH - Automated	pH Units	N/A	MCERTS	8.4	9.0	8.8	10.8	8.9
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Organic Carbon (TOC)	%	0.1	MCERTS	4.8	0.6	< 0.1	0.7	0.4
Total Phenois								
		1	MCEDIC	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	0.18	< 0.05	_	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	_	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	_	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	_	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1.1	0.48	_	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.26	< 0.05	-	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	2.7	1.0	-	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	2.3	0.92	-	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.5	0.70	-	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.6	0.51	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	2.3	0.84	-	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.1	0.44	-	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.0	0.80	-	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.0	0.41	-	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.19	< 0.05	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.1	0.49	-	< 0.05	< 0.05
Total PAH		0.0		47.4	6.63		. 0.00	. 0.00
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	17.1	6.63	-	< 0.80	< 0.80
Heavy Metals / Metalloids	1	1 .	1		1		· · · · · · · · · · · · · · · · · · ·	1
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	3.7	3.1	< 1.0	14	2.6
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	10	11	25	12
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.92	0.66	0.68	1.3	0.98
Boron (water soluble)	mg/kg	0.2	MCERTS	2.2	1.1	0.4	2.1	1.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable) Copper (aqua regia extractable)	mg/kg	1	MCERTS	28	21	18	33	27
, , , , , , , , , , , , , , , , , , ,	mg/kg	1	MCERTS	64 210	63	8.5 12	400 620	31
Lead (aqua regia extractable) Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS MCERTS		130 < 0.3	< 0.3		130
Mercury (aqua regia extractable) Nickel (aqua regia extractable)	mg/kg			< 0.3 24	< 0.3 17	< 0.3 16	< 0.3 31	< 0.3 20
Nickel (aqua regia extractable) Selenium (aqua regia extractable)	mg/kg	1	MCERTS MCERTS	< 1.0		16 < 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg mg/kg	1	MCERTS	< 1.0 43	< 1.0 33	< 1.0 31	< 1.0 54	< 1.0 48
Zinc (aqua regia extractable)	mg/кg mg/kg	1	MCERTS	190	96	22	240	48
בוווכ (מקעם ובקום בגנומנומטול)	mg/kg		MICEKIS	130	30	44	∠ '1 U	70





Lab Sample Number	909152	909153	909154	909155	909156			
Sample Reference								
-				BH201	BH201	BH201	BH202	BH202
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	1.00	2.50	0.30	1.00
Date Sampled				12/02/2018	12/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken			None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	
		ο.	Accreditation Status					
Analytical Parameter	⊆	Limit of detection	St					
(Soil Analysis)	Units	<u>Ģ</u> . ≓	at u					
(**************************************	-	을 뜻	sitio					
			5					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	μg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	μg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	μg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	μg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	μg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
Mineral Oil (C10 - C40)	mg/kg	10	NONE	< 10	< 10	-	< 10	< 10
Envisor de								
TPH C10 - C40	mg/kg	10	MCERTS	25	31	-	< 10	< 10
TPH-CWG - Aliphatic >EC5 - EC6	/l	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC5 - EC6 TPH-CWG - Aliphatic >EC6 - EC8	mg/kg mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC6 TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
	919			. 20	- 10	. 20	- 10	
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	2.3	3.4	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	11	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	12	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	25	17	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	25	17	< 10	< 10	< 10
TDU (CO., C10)		0.1				1		. 0.4
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
TPH (C8 - C40)	mg/kg	10	NONE	25	31	-	< 10	< 10
TPH (C10 - C25)	mg/kg	10	MCERTS	18	16	_	< 10	< 10
11 11 (C10 - C23)	i iiig/kg	10	MCER 15	10	10	-	< 10	< 10





Lab Sample Number				909152	909153	909154	909155	909156
·				909132	909133	9091J T	909133	303130
Sample Reference				BH201	BH201	BH201	BH202	BH202
Sample Number				None Supplied				
Depth (m) Date Sampled				0.30 12/02/2018	1.00 12/02/2018	2.50 13/02/2018	0.30 13/02/2018	1.00 13/02/2018
Time Taken				None Supplied				
			Ā					
Analytical Parameter	_	Lir	Accreditation Status					
(Soil Analysis)	Units	Limit of detection	dita					
(con runaryoro)	•	g of	ation					
VOCs			-					
Chloromethane	μg/kg	1	ISO 17025	< 1.0	< 1.0	_	< 1.0	< 1.0
Chloroethane	μg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
Bromomethane	μg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Vinyl Chloride	μg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
Trichlorofluoromethane 1,1-Dichloroethene	μg/kg	1	NONE NONE	< 1.0 < 1.0	< 1.0	-	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	μg/kg μg/kg	1	ISO 17025	< 1.0	< 1.0 < 1.0	-	< 1.0 < 1.0	< 1.0 < 1.0
Cis-1,2-dichloroethene	μg/kg μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1-Dichloroethane	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
2,2-Dichloropropane	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Trichloromethane	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,1-Trichloroethane 1,2-Dichloroethane	μg/kg μg/kg	1	MCERTS MCERTS	< 1.0 < 1.0	< 1.0 < 1.0	-	< 1.0 < 1.0	< 1.0 < 1.0
1,1-Dichloropropene	μg/kg μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Trans-1,2-dichloroethene	μg/kg	1	NONE	< 1.0	< 1.0	-	< 1.0	< 1.0
Benzene	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Tetrachloromethane	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dichloropropane	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Trichloroethene Dibromomethane	μg/kg μg/kg	1	MCERTS MCERTS	< 1.0 < 1.0	< 1.0 < 1.0	-	< 1.0 < 1.0	< 1.0 < 1.0
Bromodichloromethane	μg/kg μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0 < 1.0
Cis-1,3-dichloropropene	μg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Trans-1,3-dichloropropene	μg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Toluene	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,2-Trichloroethane	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,3-Dichloropropane Dibromochloromethane	μg/kg μg/kg	1	ISO 17025 ISO 17025	< 1.0 < 1.0	< 1.0	-	< 1.0	< 1.0
Tetrachloroethene	μg/kg	1	NONE	< 1.0	< 1.0 < 1.0	-	< 1.0 < 1.0	< 1.0 < 1.0
1,2-Dibromoethane	μg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
Chlorobenzene	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Ethylbenzene	μg/kg "	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
p & m-Xylene Styrene	μg/kg	1	MCERTS	< 1.0	< 1.0	<u>-</u> -	< 1.0	< 1.0
Styrene Tribromomethane	μg/kg μg/kg	1	MCERTS NONE	< 1.0 < 1.0	< 1.0 < 1.0	-	< 1.0 < 1.0	< 1.0 < 1.0
o-Xylene	μg/kg μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Isopropylbenzene	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Bromobenzene	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
n-Propylbenzene	μg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
2-Chlorotoluene 4-Chlorotoluene	μg/kg μg/kg	1	MCERTS MCERTS	< 1.0 < 1.0	< 1.0 < 1.0	-	< 1.0 < 1.0	< 1.0 < 1.0
1,3,5-Trimethylbenzene	μg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
tert-Butylbenzene	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2,4-Trimethylbenzene	μg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
sec-Butylbenzene	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,3-Dichlorobenzene	μg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
p-Isopropyltoluene 1,2-Dichlorobenzene	μg/kg μg/kg	1	ISO 17025 MCERTS	< 1.0 < 1.0	< 1.0 < 1.0	-	< 1.0 < 1.0	< 1.0 < 1.0
1,4-Dichlorobenzene	μg/kg μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Butylbenzene	μg/kg μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	μg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2,4-Trichlorobenzene	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Hexachlorobutadiene	μg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
1,2,3-Trichlorobenzene	μg/kg	1	ISO 17025	< 1.0	< 1.0	-	< 1.0	< 1.0





Lab Sample Number				909152	909153	909154	909155	909156
,				909152	909153	909154	909155	909156
Sample Reference				BH201	BH201	BH201	BH202	BH202
Sample Number				None Supplied				
Depth (m)				0.30 12/02/2018	1.00 12/02/2018	2.50 13/02/2018	0.30 13/02/2018	1.00 13/02/2018
Date Sampled Time Taken			None Supplied	None Supplied	None Supplied	None Supplied	None Supplied	
Time runen			>	чоне заррнеа	чоне заррнеа	тчопе заррнеа	140ПС Заррпса	140ПС Заррпса
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs				-	-	-		-
Aniline	mg/kg	0.1	NONE	< 0.1	< 0.1	-	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	< 0.2	-	< 0.2	< 0.2
2-Chlorophenol Bis(2-chloroethyl)ether	mg/kg	0.1	MCERTS	< 0.1 < 0.2	< 0.1 < 0.2	<u> </u>	< 0.1 < 0.2	< 0.1 < 0.2
1,3-Dichlorobenzene	mg/kg mg/kg	0.2	MCERTS MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	_	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
4-Methylphenol Isophorone	mg/kg mg/kg	0.2	NONE MCERTS	< 0.2 < 0.2	< 0.2 < 0.2	-	< 0.2 < 0.2	< 0.2 < 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	_	< 0.3	< 0.2
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	0.18	< 0.05	-	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	< 0.1 < 0.1	-	< 0.1	< 0.1
Hexachlorobutadiene 4-Chloro-3-methylphenol	mg/kg mg/kg	0.1	MCERTS NONE	< 0.1 < 0.1	< 0.1	-	< 0.1 < 0.1	< 0.1 < 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	< 0.1	_	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	< 0.1	-	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	< 0.1	<u> </u>	< 0.1	< 0.1
Acenaphthylene Acenaphthene	mg/kg mg/kg	0.05	MCERTS MCERTS	< 0.05 < 0.05	< 0.05 < 0.05	-	< 0.05 < 0.05	< 0.05 < 0.05
2,4-Dinitrotoluene	mg/kg	0.03	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	< 0.3	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Azobenzene Bromophenyl phenyl ether	mg/kg mg/kg	0.3	MCERTS MCERTS	< 0.3 < 0.2	< 0.3 < 0.2	-	< 0.3 < 0.2	< 0.3 < 0.2
Hexachlorobenzene	mg/kg	0.2	MCERTS	< 0.2	< 0.3	-	< 0.2	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	1.1	0.48	-	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.26	< 0.05	-	< 0.05	< 0.05
Carbazole	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS MCERTS	2.7	1.0	-	< 0.05	< 0.05
Pyrene Butyl benzyl phthalate	mg/kg mg/kg	0.05	ISO 17025	2.3 < 0.3	0.92 < 0.3	<u>-</u>	< 0.05 < 0.3	< 0.05 < 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.5	0.70	-	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	1.6	0.51	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	2.3	0.84	-	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.1	0.44	-	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.0	0.80	-	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.0	0.41	-	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.19	< 0.05	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.1	0.49	-	< 0.05	< 0.05





Lab Sample Number				909152	909153	909154	909155	909156
Sample Reference				BH201	BH201	BH201	BH202	BH202
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)				0.30	1.00	2.50	0.30	1.00
Date Sampled				12/02/2018	12/02/2018	13/02/2018	13/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs								
PCB Congener 077	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 081	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 105	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 114	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 118	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 123	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 126	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 156	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 157	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 167	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 169	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 189	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total PCBs	mg/kg	0.012	NONE	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012





Analytical Report Number: 18-76209

Project / Site name: 1 Triton Square

Your Order No: CL1288

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	
909152	BH201	0.30	150	Loose Fibres	Chrysotile	< 0.001	< 0.001
909155	BH202	0.30	199	Loose Fibrous Debris	Chrysotile	< 0.001	< 0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.





* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
909152	BH201	None Supplied	0.30	Brown loam and sand with gravel.
909153	BH201	None Supplied	1.00	Brown sand with gravel.
909154	BH201	None Supplied	2.50	Light brown sand with gravel.
909155	BH202	None Supplied	0.30	Brown sand with rubble and gravel
909156	BH202	None Supplied	1.00	Brown sandy clay with vegetation.





Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

	ace water (3W) Fotable water (FW) Ground W				
Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
DRO (Soil)	Determination of extractable hydrocarbons in soil by GC-MS/FID.	In-house method	L076-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	in-house method	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
PCBs WHO 12 in soil	Determination of PCBs (WHO-12 Congeners) by GC MS.	In-house method based on USEPA 8082	L027-PL	D	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
PRO (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton(Skalar)	L080-PL	W	MCERTS
		Clesceri, Greenberg & Eaton (Skalar)			

Iss No 18-76209-1 1 Triton Square 18-3086





Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests""	L009-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding.	L076-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L076-PL	D	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.





Flora Elliston

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Croxley Green
Business Park,
Watford,
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WD18 8YS

t: 01923 225404 **f:** 01923 237404

e: reception@i2analytical.com

Analytical Report Number: 18-76211

Project / Site name: 1 Triton Square Samples received on: 13/02/2018

Your job number: 18-3086 Samples instructed on: 15/02/2018

Your order number: CL1288 Analysis completed by: 22/02/2018

Report Issue Number: 1 **Report issued on:** 22/02/2018

Samples Analysed: 5 10:1 WAC leachate samples

Signed:

Jordan Hill Reporting Manager

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are : soils - 4 weeks from reporting

leachates - 2 weeks from reporting waters - 2 weeks from reporting asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.





7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS

Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

Waste Acceptance Criteria Analytical	Results						
Report No:		18-7	6211				
					Client:	CONCEPT	
Location		1 Trito	n Square				
Lab Reference (Sample Number)		909	9159		Landfill	Waste Acceptano Limits	e Criteria
Sampling Date			2/2018			Stable Non-	
Sample ID			201			reactive	
Depth (m)			30		Inert Waste Landfill	HAZARDOUS waste in non- hazardous Landfill	Hazardous Waste Landfill
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-						10%
BTEX (µg/kg) **	-				6000		
Sum of PCBs (mg/kg) **	-				1		
Mineral Oil (mg/kg)	-				500		
Total PAH (WAC-17) (mg/kg)	=				100	-	
pH (units)**	-					>6	
Acid Neutralisation Capacity (mol / kg)	=					To be evaluated	To be evaluated
					I touth out to		
Eluate Analysis	10:1			10:1	Limit valu	es for compliance l	eaching test
(BS EN 12457 - 2 preparation utilising end over end leaching					using BS EN	N 12457-2 at L/S 10	l/kg (mg/kg)
procedure)	mg/l			mg/kg			
Arsenic *	0.0078			0.0543	0.5	2	25
Barium *	0.0068			0.0474	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0013			0.0092	0.5	10	70
Copper *	0.027			0.19	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0105			0.0728	0.5	10	30
Nickel *	0.0011			0.0076	0.4	10	40
Lead *	0.0093			0.065	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.016			0.11	4	50	200
Chloride *	0.84			5.8	800	4000	25000
Fluoride	0.68			4.8	10	150	500
Sulphate *	3.2	1	1	22	1000	20000	50000
TDS	64			450	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	12.6			87.5	500	800	1000
Leach Test Information		1			ļ	1	
Stone Content (%)	-						
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
•							
					1		
Results are expressed on a dry weight basis, after correction for me	oisture content whe	ere applicable.	•	•	*= UKAS accredit	ed (liquid eluate an	alysis only)
Stated limits are for guidance only and i2 cannot be held responsib			gislation		** = MCERTS acc		**
	, акастери		J		- mcER13 acc	culteu	





7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Report No:		18-	76211				
					Client:	CONCEPT	
					Cilett.	CONCEPT	
Location		1 Trito	n Square				
Lab Reference (Sample Number)			0450		Landfill	Waste Acceptanc	e Criteria
			9160			Limits	
Sampling Date			2/2018			Stable Non- reactive	
Sample ID		BI	1201		Inert Waste	HAZARDOUS	Hazardous
Depth (m)		1	.00		Landfill	waste in non- hazardous Landfill	Waste Landfill
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-						10%
BTEX (µg/kg) **	-				6000		
Sum of PCBs (mg/kg) **	-			1	1		
Mineral Oil (mg/kg)	-				500		
Total PAH (WAC-17) (mg/kg)	-				100		
pH (units)**	-					>6	
Acid Neutralisation Capacity (mol / kg)	-					To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching					using BS Ef	12457-2 at L/S 10	l/kg (mg/kg)
procedure)	mg/l			mg/kg			
Arsenic *	0.0069		-	0.0586	0.5	2	25
Barium *	0.0063			0.0530	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0022			0.018	0.5	10	70
Copper *	0.013			0.11	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0025			0.0215	0.5	10	30
Nickel *	0.0007			0.0062	0.4	10	40
Lead *	0.012			0.10	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.015			0.12	4	50	200
Chloride *	0.82			6.9	800	4000	25000
Fluoride	0.37			3.1	10	150	500
Sulphate *	5.2			44	1000	20000	50000
TDS	45			380	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	5.88			49.9	500	800	1000
Leach Test Information			1				
Stone Content (%)	-		+				
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
					ļ	1	
					l		
Results are expressed on a dry weight basis, after correction for me	pisture content whe	re applicable.			*= UKAS accredit	ed (liquid eluate and	alysis only)

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.

This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.





7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS

Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

Waste Acceptance Criteria Analytical	Results							
Report No:		18-76211						
				Client:	CONCEPT			
				Circita	0011021 1			
Location		1 Triton Square		<u></u>				
Lab Reference (Sample Number)		909161		Landfill	Waste Acceptance	e Criteria		
Sampling Date		13/02/2018			Limits Stable Non-			
Sample ID		BH201			reactive			
Depth (m)		2.50		Inert Waste Landfill	HAZARDOUS waste in non- hazardous Landfill	Hazardous Waste Landfill		
Solid Waste Analysis								
TOC (%)**	-			3%	5%	6%		
Loss on Ignition (%) **	-					10%		
BTEX (µg/kg) **	-			6000				
Sum of PCBs (mg/kg) **	-			1				
Mineral Oil (mg/kg)	-			500				
Total PAH (WAC-17) (mg/kg)	-			100				
pH (units)**	-				>6			
Acid Neutralisation Capacity (mol / kg)	-				To be evaluated	To be evaluated		
				Limit valu				
Eluate Analysis	10:1		10:1	Limit values for compliance leaching test				
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l		mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)				
Arsenic *	< 0.0011		< 0.0110	0.5	2	25		
Barium *	0.0023		0.0176	20	100	300		
Cadmium *	< 0.0001		< 0.0008	0.04	1	5		
Chromium *	< 0.0004		< 0.0040	0.5	10	70		
Copper *	0.0008		< 0.0070	2	50	100		
Mercury *	< 0.0005		< 0.0050	0.01	0.2	2		
Molybdenum *	0.0019		0.0146	0.5	10	30		
Nickel *	< 0.0003		< 0.0030	0.4	10	40		
Lead *	0.0013		0.010	0.5	10	50		
Antimony *	< 0.0017		< 0.017	0.06	0.7	5		
·						7		
Selenium *	< 0.0040		< 0.040	0.1	0.5			
Zinc *	0.0024		0.018	4	50	200		
Chloride *	6.5		50	800	4000	25000		
Fluoride	0.19		1.4	10	150	500		
Sulphate *	3.5		26	1000	20000	50000		
TDS	22		170	4000	60000	100000		
Phenol Index (Monhydric Phenols) *	< 0.010		< 0.10	1	-	-		
DOC	3.36		25.5	500	800	1000		
_								
Leach Test Information								
Stone Content (%)	-							
Sample Mass (kg)	-			 	1			
Dry Matter (%)	-		_		ļ			
Moisture (%)	-				1			
					-			
Results are expressed on a dry weight basis, after correction for m	oisture content whe	re applicable.	1	*= UKAS accredit	ed (liquid eluate and	alysis only)		
Stated limits are for guidance only and i2 cannot be held responsib	le for any discrepen	cies with current legislation		** = MCERTS acc	rediited			





7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS

Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

teport No:		18-	76211				
					Olit-	CONCERT	
_					Client:	CONCEPT	
Location		1 Trito	n Square		†		
					Landfill	Waste Acceptanc	e Criteria
Lab Reference (Sample Number)			9162			Limits	
Sampling Date			2/2018			Stable Non- reactive	
Sample ID		BI	H202		Inert Waste	HAZARDOUS	Hazardous
Depth (m)		(0.30		Landfill	waste in non- hazardous Landfill	Waste Landfi
olid Waste Analysis							
OC (%)**	-				3%	5%	6%
oss on Ignition (%) **	-						10%
TEX (μg/kg) **	-				6000		
um of PCBs (mg/kg) **	-				1		-
fineral Oil (mg/kg)	-				500		-
otal PAH (WAC-17) (mg/kg)	-				100		
H (units)**	-					>6	
cid Neutralisation Capacity (mol / kg)	-					To be evaluated	To be evaluate
					Limit valu	es for compliance le	
luate Analysis	10:1			10:1			
BS EN 12457 - 2 preparation utilising end over end leaching					using BS EN 12457-2 at L/S 10 l/k		l/kg (mg/kg)
rocedure)	mg/l			mg/kg			
rsenic *	0.0180			0.143	0.5	2	25
arium *	0.0070			0.0556	20	100	300
admium *	< 0.0001			< 0.0008	0.04	1	5
thromium *	0.0065			0.051	0.5	10	70
Copper *	0.017			0.14	2	50	100
fercury *	< 0.0005			< 0.0050	0.01	0.2	2
folybdenum *	0.0034			0.0269	0.5	10	30
lickel *	< 0.0003			< 0.0030	0.4	10	40
ead *	0.0085			0.067	0.5	10	50
ntimony *	< 0.0017			< 0.017	0.06	0.7	5
elenium *	< 0.0040			< 0.040	0.1	0.5	7
inc *	0.0025			0.020	4	50	200
hloride *	4.8			38	800	4000	25000
luoride	0.29			2.3	10	150	500
ulphate *	29			230	1000	20000	50000
DS	130			1100	4000	60000	100000
henol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
00C	4.01			31.7	500	800	1000
each Test Information			1	1			
tone Content (%)	-						
ample Mass (kg)	-		1				
Pry Matter (%)	-						
loisture (%)	-						
			1	1	1	1	





7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS

Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

Location Lab Reference (Sample Number)							
					Clit-	CONCERT	
					Client:	CONCEPT	
Lab Reference (Sample Number)		1 Trito	n Square		1		
					Landfill	Waste Acceptanc	e Criteria
			9163			Limits	
Sampling Date			02/2018			Stable Non- reactive	
Sample ID	1	В	H202		Inert Waste	HAZARDOUS	Hazardous
Depth (m)			1.00		Landfill	waste in non- hazardous Landfill	Waste Landfi
olid Waste Analysis							
OC (%)**	-				3%	5%	6%
oss on Ignition (%) **	-						10%
TEX (μg/kg) **	-				6000		
um of PCBs (mg/kg) **	-				1		
lineral Oil (mg/kg)	-				500		-
otal PAH (WAC-17) (mg/kg)	-				100		-
H (units)**	-					>6	-
cid Neutralisation Capacity (mol / kg)	-					To be evaluated	To be evaluate
luate Analysis	10.1			10.1	Limit value	es for compliance le	eaching test
uate Analysis	10:1			10:1			
SS EN 12457 - 2 preparation utilising end over end leaching rocedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
<u> </u>							
rsenic *	0.0119			0.0891	0.5	2	25
arium *	0.0044		_	0.0328	20	100	300
admium *	< 0.0001		_	< 0.0008	0.04	1	5
hromium *	0.0038		_	0.028	0.5	10	70
opper *	0.0076			0.057	2	50	100
ercury *	< 0.0005			< 0.0050	0.01	0.2	2
olybdenum *	0.0235		_	0.175	0.5	10	30
ickel *	< 0.0003			< 0.0030	0.4	10	40
ead *	0.0026			0.020	0.5	10	50
ntimony *	< 0.0017			< 0.017	0.06	0.7	5
elenium *	< 0.0040			< 0.040	0.1	0.5	7
inc *	0.0028			0.021	4	50	200
hloride *	10			74	800	4000	25000
uoride	0.87			6.5	10	150	500
ulphate *	31			230	1000	20000	50000
DS	110			810	4000	60000	100000
henol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
oc	4.24			31.7	500	800	1000
each Test Information							
tone Content (%)	-						
ample Mass (kg)	-						
ry Matter (%)	-						
loisture (%)	-						
esults are expressed on a dry weight basis, after correction for m			1		* LIKAC pages 224	ed (liquid eluate and	husia anhu)





Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-PL	w	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.





Evangelos Kafantaris

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Watford,
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t: 01923 225404 **f:** 01923 237404

e: reception@i2analytical.com

Analytical Report Number: 18-76212

Replaces Analytical Report Number: 18-76212, issue no. 3

Project / Site name: 1 Triton Square Samples received on: 14/02/2018

Your job number: 18-3086 Samples instructed on: 15/02/2018

Your order number: CL1289 Analysis completed by: 15/03/2018

Report Issue Number: 4 **Report issued on:** 15/03/2018

Samples Analysed: 7 soil samples

Signed:

Rexona Rahman

Head of Customer Services

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are : soils - 4 weeks from reporting

leachates - 2 weeks from reporting waters - 2 weeks from reporting asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.





Lab Sample Number				909164	909165	909166	909167	909168
Sample Reference				HP101	HP101	HP102	HP102	HP103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	1.00	0.30	1.00	0.30
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
			4	• • •				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	16	14	8.6	9.2	11
Total mass of sample received	kg	0.001	NONE	1.8	1.8	1.5	1.4	1.4
			1				ı	ı
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	Chrysotile	-
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	0.002	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	0.002	-
General Inorganics pH - Automated	pH Units	N/A	MCERTS	8.7	9.7	9.5	10.0	9.8
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.0	0.9	2.7	1.1	0.6
Total Phenols			1	1.0	- 10			
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	0.32	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	0.19	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	0.32	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	0.36	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	3.5	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	0.69	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	4.3	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	3.6	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	2.0	-
Chrysene	mg/kg	0.05	MCERTS	-	-	_	2.2	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	i	-	-	2.7	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	1.3	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	2.4	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	1.2	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	0.25	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	ı	-	-	1.3	-
							-	
Total PAH							1	T
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	-	-	26.6	-





Lab Sample Number				909164	909165	909166	909167	909168
Sample Reference				HP101	HP101	HP102	HP102	HP103
Sample Number				None Supplied				
Depth (m)				0.10	1.00	0.30	1.00	0.30
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	13/02/2018
Time Taken	1			None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Heavy Metals / Metalloids								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	5.4	9.2	1.2	< 1.0	2.7
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	18	14	8.3	11	14
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.2	1.1	0.77	0.58	0.76
Boron (water soluble)	mg/kg	0.2	MCERTS	1.5	1.3	1.3	1.9	2.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable) Copper (aqua regia extractable)	mg/kg mg/kg	1	MCERTS MCERTS	31 120	28 130	73 40	21 32	25 58
Lead (aqua regia extractable)	mg/kg	1	MCERTS	410	740	240	120	750
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	27	22	35	16	19
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	52	45	51	32	42
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	180	170	93	73	210
Monoaromatics Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	μg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	μg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	μg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene MTBE (Methyl Tertiary Butyl Ether)	μg/kg μg/kg	1	MCERTS MCERTS	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0
Petroleum Hydrocarbons Petroleum Range Organics (C6 - C10) Mineral Oil (C10 - C40)	mg/kg mg/kg	0.1	MCERTS NONE	-	-	-	-	< 0.1 < 10
					ı	T		
TPH C10 - C40	mg/kg	10	MCERTS	-	-	-	-	33
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	2.9	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	4.4	6.1	< 2.0
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0 < 8.0	17 100	20 85	< 8.0
TPH-CWG - Aliphatic > EC21 - EC35 TPH-CWG - Aliphatic > EC35 - EC44	mg/kg mg/kg	8.4	MCERTS NONE	< 8.0 < 8.4	< 8.0 < 8.4	110	85 72	< 8.0 < 8.4
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	130	110	< 10
TPH-CWG - Aliphatic (EC5 - EC44)	mg/kg	10	NONE	< 10	< 10	240	190	< 10
,	51 5			-				-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	4.1	< 1.0
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	3.5	3.1	6.3	14	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 TPH-CWG - Aromatic >EC21 - EC35	mg/kg mg/kg	10 10	MCERTS MCERTS	60 66	57 67	34 240	29 160	10 23
TPH-CWG - Aromatic > EC35 - EC44	mg/кg mg/kg	8.4	NONE	< 8.4	< 8.4	720	190	< 8.4
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	130	130	280	210	33
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	130	130	1000	390	33
TPH (C8 - C10)	mg/kg	0.1	MCERTS	_	<u> </u>	_	_	< 0.1
TPH (C8 - C10) TPH (C8 - C40)	mg/kg mg/kg	10	NONE	-	_	-	-	33
TDU (010 - 025)	1							
TPH (C10 - C25)	mg/kg	10	MCERTS	-	-	-	-	14





Lab Sample Number				909164	909165	909166	909167	909168
Sample Reference				HP101	HP101	HP102	HP102	HP103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	1.00	0.30	1.00	0.30
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
			Accreditation Status					
Analytical Parameter	ς	Limit of detection	Sta					
(Soil Analysis)	Units	it o	dita					
		n f	* <u>E</u>					
VOCs								
Chloromethane	μg/kg	1	ISO 17025	_	_	_	_	< 1.0
Chloroethane	μg/kg	1	NONE	_	-	-	-	< 1.0
Bromomethane	μg/kg	1	ISO 17025	-	-	-	-	< 1.0
Vinyl Chloride	μg/kg	1	NONE	-	-	-	-	< 1.0
Trichlorofluoromethane	μg/kg	1	NONE	-	-	-	-	< 1.0
1,1-Dichloroethene	μg/kg	1	NONE	-	-	-	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	μg/kg	1	ISO 17025	-	-	-	-	< 1.0
Cis-1,2-dichloroethene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	μg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1-Dichloroethane 2,2-Dichloropropane	μg/kg μg/kg	1	MCERTS MCERTS	<u>-</u> -	-	<u>-</u> -	-	< 1.0 < 1.0
Z,Z-Dichloropropane Trichloromethane	μg/kg μg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1,1-Trichloroethane	μg/kg	1	MCERTS	_	_	_	-	< 1.0
1,2-Dichloroethane	μg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1-Dichloropropene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
Trans-1,2-dichloroethene	μg/kg	1	NONE	-	-	-	-	< 1.0
Benzene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
Tetrachloromethane	μg/kg	1	MCERTS	-	-	-	-	< 1.0
1,2-Dichloropropane	μg/kg 	1	MCERTS	-	-	-	-	< 1.0
Trichloroethene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
Dibromomethane Bromodichloromethane	μg/kg μg/kg	1	MCERTS MCERTS	-	-	-	-	< 1.0 < 1.0
Cis-1,3-dichloropropene	μg/kg μg/kg	1	ISO 17025			-		< 1.0
Trans-1,3-dichloropropene	μg/kg	1	ISO 17025	_	_	_	-	< 1.0
Toluene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1,2-Trichloroethane	μg/kg	1	MCERTS	-	-	-	-	< 1.0
1,3-Dichloropropane	μg/kg	1	ISO 17025	-	-	-	-	< 1.0
Dibromochloromethane	μg/kg	1	ISO 17025	-	-	-	-	< 1.0
Tetrachloroethene	μg/kg	1	NONE	-	-	-	-	< 1.0
1,2-Dibromoethane	μg/kg	1	ISO 17025	-	-	-	-	< 1.0
Chlorobenzene 1,1,1,2-Tetrachloroethane	μg/kg	1	MCERTS	-	-	-	-	< 1.0 < 1.0
Ethylbenzene	μg/kg μg/kg	1	MCERTS MCERTS	-	-	-	-	< 1.0
p & m-Xylene	μg/kg μg/kg	1	MCERTS	-	-		-	< 1.0
Styrene	μg/kg μg/kg	1	MCERTS	_	_	_	_	< 1.0
	μg/kg	1	NONE	-	-	-	-	< 1.0
o-Xylene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
1,1,2,2-Tetrachloroethane	μg/kg	1	MCERTS	-	-	-	-	< 1.0
Isopropylbenzene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
Bromobenzene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
n-Propylbenzene	μg/kg	1	ISO 17025	-	-	-	-	< 1.0
2-Chlorotoluene 4-Chlorotoluene	μg/kg	1	MCERTS MCERTS	-	-	-	<u>-</u>	< 1.0 < 1.0
1,3,5-Trimethylbenzene	μg/kg μg/kg	1	ISO 17025	-	-	-	-	< 1.0
tert-Butylbenzene	μg/kg	1	MCERTS	-	_	_	_	< 1.0
1,2,4-Trimethylbenzene	μg/kg	1	ISO 17025	-	-	-	-	< 1.0
sec-Butylbenzene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
1,3-Dichlorobenzene	μg/kg	1	ISO 17025	-	-	-	-	< 1.0
p-Isopropyltoluene	μg/kg	1	ISO 17025	-	-	-	-	< 1.0
1,2-Dichlorobenzene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
1,4-Dichlorobenzene	μg/kg 	1	MCERTS	-	-	-	-	< 1.0
Butylbenzene	μg/kg	1	MCERTS	-	-	-	-	< 1.0
1,2-Dibromo-3-chloropropane	μg/kg	1	ISO 17025	-	-	-	-	< 1.0
1,2,4-Trichlorobenzene Hexachlorobutadiene	μg/kg μg/kg	1	MCERTS MCERTS	-	-	-	-	< 1.0 < 1.0
1,2,3-Trichlorobenzene	μg/kg μg/kg	1	ISO 17025	-	-	-	-	< 1.0
-1-10	₽9/ N9		100 1/023					` 1.0





Lab Sample Number				909164	909165	909166	909167	909168
Sample Reference				HP101	HP101	HP102	HP102	HP103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	1.00	0.30	1.00	0.30
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
		Δ.	Aco					
Analytical Parameter	ç	Limit of detection	Accreditation Status					
(Soil Analysis)	Units	it o	reditat Status					
		n f	tion ti					
SVOCs	<u> </u>							
Aniline	mg/kg	0.1	NONE	_	l -	_	I -	< 0.1
Phenol	mg/kg	0.2	ISO 17025	_	_	_	_	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2-Methylphenol Hexachloroethane	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Hexachioroethane Nitrobenzene	mg/kg mg/kg	0.05	MCERTS MCERTS	-	<u>-</u>	-	<u>-</u>	< 0.05 < 0.3
4-Methylphenol	mg/kg	0.2	NONE	-			-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	_	_	_	_	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	< 0.1
Hexachlorobutadiene 4-Chloro-3-methylphenol	mg/kg mg/kg	0.1	MCERTS NONE	-	<u>-</u>	-	<u>-</u>	< 0.1 < 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS		-			< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	_	-	_	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Dibenzofuran 4-Chlorophenyl phenyl ether	mg/kg mg/kg	0.2	MCERTS ISO 17025	-	-	-	<u>-</u> -	< 0.2 < 0.3
Diethyl phthalate	mg/kg	0.3	MCERTS		-			< 0.3
4-Nitroaniline	mg/kg	0.2	MCERTS	-	_	-	_	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	1.3
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	0.29
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	- -	- -	-	- -	< 0.2
Anthraquinone Fluoranthene	mg/kg mg/kg	0.05	MCERTS MCERTS	-	-	-	-	< 0.3 2.4
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	2.4
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	1.3
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	1.3
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	2.0
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	0.64
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	1.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	0.94
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	1.0





Lab Sample Number				909164	909165	909166	909167	909168
Sample Reference				HP101	HP101	HP102	HP102	HP103
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	1.00	0.30	1.00	0.30
Date Sampled				14/02/2018	14/02/2018	14/02/2018	14/02/2018	13/02/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs	-	-	•					
PCB Congener 077	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 081	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 105	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 114	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 118	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 123	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 126	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 156	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 157	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 167	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 169	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
PCB Congener 189	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total PCBs	mg/kg	0.012	NONE	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012





Lab Sample Number				909169	909170		
Sample Reference				HP103	BH201		
Sample Number				None Supplied	None Supplied		
Depth (m)				0.70	7.30		
Date Sampled				13/02/2018	13/02/2018		
Time Taken				None Supplied	None Supplied		
			>				
		Limit of detection	Accreditation Status				
Analytical Parameter	Units	tec mit	edi				
(Soil Analysis)	ន	할 약	us tat				
			Ö				
Stone Content	%	0.1	NONE	< 0.1	< 0.1		
Moisture Content	%	N/A	NONE	11	21		
Total mass of sample received	kg	0.001	NONE	1.4	1.3	1	
Total mass of sample reserved		0.001	HOHE		1.0	1	1
Asbestos in Soil Screen / Identification Name	Туре	N/A	ISO 17025	-	-		
Asbestos in Soil	Туре	N/A	ISO 17025	Not-detected	-		
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-		
Asbestos Quantification Total	%	0.001	ISO 17025	-	-		
General Inorganics							
pH - Automated	pH Units	N/A	MCERTS	10.0	8.3		
Total Cvanide	mg/kg	1	MCERTS	< 1	< 1		
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.7	0.6		
						•	
Total Phenois							
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0		
Speciated PAHs							
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-		
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-		
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-		
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-		
Phenanthrene	mg/kg	0.05	MCERTS	1.2	-		
Anthracene	mg/kg	0.05	MCERTS	0.31	-		
Fluoranthene	mg/kg	0.05	MCERTS	2.8	-		
Pyrene	mg/kg	0.05	MCERTS	2.7	-		
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.7	-		
Chrysene	mg/kg	0.05	MCERTS	1.6	_		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	2.3	-		
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.3	-		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.2	_		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.2	-		
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.22	-		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.3	-		
·		-	-			 	-
Total PAH							
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	18.7	-		





Lab Sample Number				909169	909170			
Sample Reference				909169 HP103	909170 BH201			
Sample Number				None Supplied	None Supplied		1	
Depth (m)				0.70	7.30			
Date Sampled				13/02/2018	13/02/2018			
Time Taken				None Supplied	None Supplied			
			>					
Annal attent Benevius ton	_	de Li	Accreditation Status					
Analytical Parameter	Units	Limit of detection	edii					
(Soil Analysis)	S.	ti of	us					
		_	9					
Heavy Metals / Metalloids							-	
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	4.3	1.6			
Arsenic (agua regia extractable)	mg/kg	1	MCERTS	12	12			
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.67	1.4			
Boron (water soluble)	mg/kg	0.2	MCERTS	1.0	1.1			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	39			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	45	28			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	660	18			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3		ļ	
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	59			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0		1	
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	37	60		1	
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	220	86			
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0		I	
Toluene	μg/kg	1	MCERTS	< 1.0	< 1.0			
Ethylbenzene	μg/kg μg/kg	1	MCERTS	< 1.0	< 1.0			
p & m-xylene	μg/kg μg/kg	1	MCERTS	< 1.0	< 1.0			
o-xylene	μg/kg μg/kg	1	MCERTS	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0			
, , , , , , , , , , , , , , , , , , , ,		•	•			•		
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	-			
Mineral Oil (C10 - C40)	mg/kg	10	NONE	< 10	-			
	_							
TPH C10 - C40	mg/kg	10	MCERTS	29	-			
		_						
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001		1	
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0		1	
TPH-CWG - Aliphatic >EC12 - EC16 TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	2	MCERTS	< 2.0	< 2.0		1	
TPH-CWG - Aliphatic >EC16 - EC21 TPH-CWG - Aliphatic >EC21 - EC35	mg/kg mg/kg	8	MCERTS MCERTS	< 8.0 < 8.0	< 8.0 < 8.0		1	
TPH-CWG - Aliphatic > EC31 - EC35 TPH-CWG - Aliphatic > EC35 - EC44	mg/kg mg/kg	8.4	NONE	< 8.0 < 8.4	< 8.0 < 8.4		1	
TPH-CWG - Aliphatic (EC5 - EC35)		10	MCERTS	< 10	< 10		1	
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg mg/kg	10	NONE	< 10	< 10			
11 11 CHG - Aliphadic (LCS - EC44)	mg/kg	10	INOINE	< 10	< 10		1	
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC5 - EC7 TPH-CWG - Aromatic >EC7 - EC8	mg/kg mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0		1	
TPH-CWG - Aromatic >EC10 - EC12 TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0		1	
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	19	< 10			
TPH-CWG - Aromatic > EC35 - EC44	mg/kg	8.4	NONE	< 8.4	< 8.4			
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	29	< 10		<u> </u>	
TPH-CWG - Aromatic (EC5 - EC44)	mg/kg	10	NONE	29	< 10			
· · · · · · · · · · · · · · · · · · ·								
TPH (C8 - C10)	mg/kg	0.1	MCERTS	< 0.1	-			
TPH (C8 - C40)	mg/kg	10	NONE	29	-			
TPH (C10 - C25)	mg/kg	10	MCERTS	16	-			





Lab Sample Number				909169	909170		
Sample Reference				HP103	BH201		
Sample Number				None Supplied	None Supplied		
Depth (m)				0.70	7.30		
Date Sampled Time Taken				13/02/2018 None Supplied	13/02/2018 None Supplied		
Time Taken				None Supplied	None Supplied		
	_	de L	Accreditation Status				
Analytical Parameter	Units	mit	edi				
(Soil Analysis)	S	Limit of detection	us tati				
		_	9				
VOCs							
Chloromethane	μg/kg	1	ISO 17025	< 1.0	-		
Chloroethane	μg/kg	1	NONE	< 1.0	-		
Bromomethane	μg/kg	1	ISO 17025	< 1.0	-		
Vinyl Chloride	μg/kg	1	NONE	< 1.0	-		
Trichlorofluoromethane	μg/kg	1	NONE	< 1.0	-		
1,1-Dichloroethene	μg/kg	1	NONE	< 1.0	-		
1,1,2-Trichloro 1,2,2-Trifluoroethane Cis-1,2-dichloroethene	μg/kg μg/kg	1	ISO 17025 MCERTS	< 1.0 < 1.0	-		
MTBE (Methyl Tertiary Butyl Ether)	µg/кg µg/kg	1	MCERTS	< 1.0 < 1.0	-		
1.1-Dichloroethane	μg/kg μg/kg	1	MCERTS	< 1.0	-		
2,2-Dichloropropane	μg/kg	1	MCERTS	< 1.0	-		
Trichloromethane	μg/kg	1	MCERTS	< 1.0	-		
1,1,1-Trichloroethane	μg/kg	1	MCERTS	< 1.0	-		
1,2-Dichloroethane	μg/kg	1	MCERTS	< 1.0	-		
1,1-Dichloropropene	μg/kg	1	MCERTS	< 1.0	-		
Trans-1,2-dichloroethene	μg/kg	1	NONE	< 1.0	-		
Benzene	μg/kg "	1	MCERTS	< 1.0	-		
Tetrachloromethane 1,2-Dichloropropane	μg/kg	1	MCERTS MCERTS	< 1.0 < 1.0	-		
Trichloroethene	μg/kg μg/kg	1	MCERTS	< 1.0	-		
Dibromomethane	μg/kg μg/kg	1	MCERTS	< 1.0	-		
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	_		
Cis-1,3-dichloropropene	μg/kg	1	ISO 17025	< 1.0	-		
Trans-1,3-dichloropropene	μg/kg	1	ISO 17025	< 1.0	-		
Toluene	μg/kg	1	MCERTS	< 1.0	-		
1,1,2-Trichloroethane	μg/kg	1	MCERTS	< 1.0	-		
1,3-Dichloropropane	μg/kg	1	ISO 17025	< 1.0	-		
Dibromochloromethane	μg/kg	1	ISO 17025	< 1.0	-		
Tetrachloroethene 1,2-Dibromoethane	μg/kg μg/kg	1	NONE ISO 17025	< 1.0 < 1.0	-		
Chlorobenzene	μg/kg μg/kg	1	MCERTS	< 1.0	-		
1,1,1,2-Tetrachloroethane	μg/kg	1	MCERTS	< 1.0	_		
Ethylbenzene	μg/kg	1	MCERTS	< 1.0	-		
p & m-Xylene	μg/kg	1	MCERTS	< 1.0	-		
Styrene	μg/kg	1	MCERTS	< 1.0	-	 	
Tribromomethane	μg/kg	1	NONE	< 1.0	-		
o-Xylene	μg/kg	1	MCERTS	< 1.0	-		
1,1,2,2-Tetrachloroethane	μg/kg	1	MCERTS	< 1.0	-		
Isopropylbenzene Bromohenzene	μg/kg	1	MCERTS MCERTS	< 1.0 < 1.0	-		
Bromobenzene n-Propylbenzene	μg/kg μg/kg	1	MCERTS ISO 17025	< 1.0 < 1.0	-		
2-Chlorotoluene	μg/kg μg/kg	1	MCERTS	< 1.0	-		
4-Chlorotoluene	μg/kg μg/kg	1	MCERTS	< 1.0	-		
1,3,5-Trimethylbenzene	μg/kg	1	ISO 17025	< 1.0	-		
tert-Butylbenzene	μg/kg	1	MCERTS	< 1.0	-		
1,2,4-Trimethylbenzene	μg/kg	1	ISO 17025	< 1.0	-	 	
sec-Butylbenzene	μg/kg	1	MCERTS	< 1.0	-		
1,3-Dichlorobenzene	μg/kg	1	ISO 17025	< 1.0	-		
p-Isopropyltoluene	μg/kg	1	ISO 17025	< 1.0	-		
1,2-Dichlorobenzene	μg/kg	1	MCERTS	< 1.0	-		
1,4-Dichlorobenzene Butylbenzene	μg/kg μg/kg	1	MCERTS MCERTS	< 1.0 < 1.0	-		
1,2-Dibromo-3-chloropropane	μg/kg μg/kg	1	ISO 17025	< 1.0	<u>-</u>		
1,2,4-Trichlorobenzene	μg/kg	1	MCERTS	< 1.0	-		
Hexachlorobutadiene	μg/kg	1	MCERTS	< 1.0	-		
1,2,3-Trichlorobenzene	μg/kg	1	ISO 17025	< 1.0	-		





Lab Sample Number				909169	909170		
Sample Reference				HP103	BH201		
Sample Number				None Supplied	None Supplied		
Depth (m)				0.70	7.30		
Date Sampled				13/02/2018	13/02/2018		
Time Taken				None Supplied	None Supplied		
		-	Ac				
Analytical Parameter	⊆	Limit of detection	Accreditation Status				
(Soil Analysis)	Units	nit (ecti	creditat Status				
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			-				
SVOCs					1	1	1
Aniline	mg/kg	0.1	NONE	< 0.1	<u>-</u>		
Phenol 2-Chlorophenol	mg/kg mg/kg	0.2	ISO 17025 MCERTS	< 0.2 < 0.1	-		
Bis(2-chloroethyl)ether	mg/kg	0.1	MCERTS	< 0.2	-		
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	_		
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-		
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-		
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-		
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-		
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-		
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
4-Methylphenol Isophorone	mg/kg	0.2	NONE	< 0.2 < 0.2	-		
2-Nitrophenol	mg/kg mg/kg	0.2	MCERTS MCERTS	< 0.2	-		
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-		
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	_		
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-		
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-		
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-		
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-		
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-		
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-		
2,4,5-Trichlorophenol 2-Methylnaphthalene	mg/kg	0.2	MCERTS NONE	< 0.2 < 0.1	-		
2-Chloronaphthalene	mg/kg mg/kg	0.1	MCERTS	< 0.1	-		
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-		
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-		
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-		
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-		
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-		
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-		
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-		
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-		
4-Nitroaniline Fluorene	mg/kg mg/kg	0.2	MCERTS MCERTS	< 0.2 < 0.05	-		
Azobenzene	mg/kg	0.03	MCERTS	< 0.3	-		
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	_		
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-		
Phenanthrene	mg/kg	0.05	MCERTS	1.2	-		
Anthracene	mg/kg	0.05	MCERTS	0.31	-		
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-		
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-		
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-		
Fluoranthene	mg/kg	0.05	MCERTS MCERTS	2.8	<u>-</u>		
Pyrene Butyl benzyl phthalate	mg/kg mg/kg	0.05	ISO 17025	2.7 < 0.3	-		
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.7	-		
Chrysene	mg/kg	0.05	MCERTS	1.6	-		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	2.3	-		
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	1.3	-		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2.2	-		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1.2	-		
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.22	-		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.3	-		





Lab Sample Number				909169	909170		
Sample Reference				HP103	BH201		
Sample Number				None Supplied	None Supplied		
Depth (m)		0.70	7.30				
Date Sampled		13/02/2018	13/02/2018				
Time Taken				None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
PCBs							
PCB Congener 077	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 081	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 105	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 114	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 118	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 123	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 126	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 156	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 157	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 167	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 169	mg/kg	0.001	NONE	< 0.001	< 0.001		
PCB Congener 189	mg/kg	0.001	NONE	< 0.001	< 0.001		
Total PCBs	mg/kg	0.012	NONE	< 0.012	< 0.012		





Analytical Report Number: 18-76212
Project / Site name: Triton Square
Your Order No: CL1289

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006 based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
909167	HP102	1.00	120	Loose Fibrous Debris	Chrysotile	0.002	0.002

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.





* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
909164	HP101	None Supplied	0.10	Brown clay and sand with brick and gravel
909165	HP101	None Supplied	1.00	Brown clay and sand with gravel.
909166	HP102	None Supplied	0.30	Brown sand with rubble and gravel
909167	HP102	None Supplied	1.00	Brown gravelly sand with rubble.
909168	HP103	None Supplied	0.30	Brown gravelly sand with rubble.
909169	HP103	None Supplied	0.70	Brown gravelly sand with rubble.
909170	BH201	None Supplied	7.30	Brown clay.





Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Method Description Asbestos Identification with the use of polarised ight microscopy in conjunction with disperion staining techniques. Asbestos quantification by gravimetric method - in nouse method based on references.	Analytical Method Reference In house method based on HSG 248	Method number A001-PL	Wet / Dry Analysis	Accreditation Status
ight microscopy in conjunction with disperion staining techniques. Asbestos quantification by gravimetric method - in		A001-PL	D	ICO 1702F
				150 1/025
	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE
Determination of extractable hydrocarbons in soil by GC-MS/FID.	In-house method	L076-PL	D	MCERTS
Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	in-house method	L076-PL	D	NONE
Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Determination of PCBs (WHO-12 Congeners) by GC- MS.	In-house method based on USEPA 8082	L027-PL	D	NONE
Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Determination of hydrocarbons C6-C10 by neadspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Determination of semi-volatile organic compounds n soil by extraction in dichloromethane and nexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Determination of total cyanide by distillation ollowed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Description of the control of the co	etermination of BTEX in soil by headspace GC-S. ependent option for Gravimetric Quant if creen/ID positive scheduled. etermination of extractable hydrocarbons in soil y GC-MS/FID. etermination of metals in soil by aqua-regia gestion followed by ICP-OES. etermination of mineral oil fraction extractable ydrocarbons in soil by GC-MS/GC-FID. oisture content, determined gravimetrically. etermination of phenols in soil by extraction with odium hydroxide followed by distillation followed y colorimetry. etermination of PCBs (WHO-12 Congeners) by GC-S. etermination of pH in soil by addition of water illowed by automated electrometric easurement. etermination of hydrocarbons C6-C10 by eadspace GC-MS. etermination of PAH compounds in soil by charaction in dichloromethane and exane followed by GC-MS. etermination of PAH compounds in soil by charaction in dichloromethane and hexane followed y GC-MS with the use of surrogate and internal andards. etermination of PAH compounds in soil by charaction in dichloromethane and hexane followed y GC-MS with the use of surrogate and internal andards. etermination of PAH compounds in soil by charaction in dichloromethane and hexane followed y GC-MS with the use of surrogate and internal andards. etermination of pagnic compounds in soil by charaction in dichloromethane and hexane followed y GC-MS with the use of surrogate and internal andards. etermination of total cyanide by distillation of one > 10 mm as % dry weight.	etermination of BTEX in soil by headspace GC-S. In-house method based on USEPAB260 In-house method based on USEPAB260 In-house method based on USEPAB260 In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil by aqua-regia gestion followed by ICP-OES. In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil. In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests etermination of phenols in soil by extraction with dium hydroxide followed by distillation followed y colorimetry. In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar) In-house method based on USEPA 8082 In-house method based on USEPA 8270 etermination of BTEX in soil by headspace GC-S. In-house method based on USEPA8260 L073B-PL In-house method based on USEPA8260 L076-PL A006-PL In-house method A001 & A006. A006-PL In-house method A001 & A006. In-house method B001 & A006. In-house M001 & A006. In-house method B001 & A006. In-house M001 & A006. In-house	etermination of BTEX in soil by headspace GC-S. In-house method based on USEPA8260 L0738-PL W ependent option for Gravimetric Quant if In house asbestos methods A001 & A006. A006-PL D creen/ID positive scheduled. In-house method L076-PL D In-house method L076-PL D ctermination of extractable hydrocarbons in soil In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil. In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil. In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 2, In-house method based on BS1377 Part 3, In-house method based on USEPA 8082 In-house method based on USEPA 8082 In-house method based on USEPA 8082 In-house method based on USEPA 8082 In-house method based on USEPA 8270 In-house method based on USE	

Iss No 18-76212-4 1 Triton Square 18-3086





Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests""	L009-PL	D	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding.	L076-PL	W	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L076-PL	D	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.





Evangelos Kafantaris

Concept Site Investigations Unit 8 Warple Mews Warple Way London W3 0RF

t: 020 88112880

e: Concept Group

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 01923 225404 **f:** 01923 237404

e: reception@i2analytical.com

Analytical Report Number: 18-76217

Replaces Analytical Report Number: 18-76217, issue no. 3

Project / Site name: 1 Triton Square Samples received on: 14/02/2018

Your job number: 18-3086 Samples instructed on: 15/02/2018

Your order number: CL1289 Analysis completed by: 15/03/2018

Report Issue Number: 4 Report issued on: 15/03/2018

Samples Analysed: 7 leachate samples

Signed:

Rexona Rahman Head of Customer Services

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are : soils - 4 weeks from reporting

leachates - 2 weeks from reporting waters - 2 weeks from reporting asbestos - 6 months from reporting

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7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

Report No:		18-7	76217				
					Client:	CONCERT	
					Clienti	CONCEPT	
Location		1 Trito	n Square		-		
			· ·		Landfill	Waste Acceptance	e Criteria
Lab Reference (Sample Number)		909	9202				
Sampling Date			2/2018			Stable Non-	
Sample ID		HP	101		Inert Waste	reactive HAZARDOUS	Hazardous
Depth (m)		0	.10		Landfill	waste in non- hazardous Landfill	Waste Landfill
Solid Waste Analysis							
ΓΟC (%)**	1				3%	5%	6%
Loss on Ignition (%) **	1						10%
BTEX (μg/kg) **	-	1		1	6000		
Sum of PCBs (mg/kg) **	-	1	-	+	1 500		
Mineral Oil (mg/kg)	-	1	-	+	500		
Total PAH (WAC-17) (mg/kg)	-	1	1	1	100		
pH (units)**	-					>6	
Acid Neutralisation Capacity (mol / kg)	-					To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1		es for compliance le	
(BS EN 12457 - 2 preparation utilising end over end leaching	ma/l			ma/ka	using BS EN	l/kg (mg/kg)	
procedure)	mg/l			mg/kg			
Arsenic *	0.0095			0.0670	0.5	2	25
Barium *	0.0081			0.0567	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.011			0.078	0.5	10	70
Copper *	0.011			0.076	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0024			0.0167	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.0058			0.041	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5 50	7
Zinc *	0.0060			0.042 4.2	4 800	4000	200
Chloride * Fluoride	0.60 0.49			3.5	10	150	25000 500
Sulphate *	10			72	1000	20000	50000
TDS	56			400	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	2.90			20.3	500	800	1000
Leach Test Information							
Leach rest Illiorillation							
Stone Content (%)	-						
Sample Mass (kg)	-	1			ļ	ļ	
Dry Matter (%)	-	1	ļ				
Moisture (%)	-			1	-	-	
				+		1	
			1	1	<u> </u>	1	
	sisture content whe	•	•		*= UKAS accredit	•	





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Waste Acceptance Criteria Analytical Report No:		18-	76217				
					Client:	CONCEPT	
					Cilett.	CONCEPT	
Location		1 Trito	n Square				
Lab Reference (Sample Number)			0202		Landfill	Waste Acceptance	e Criteria
			9203			Limits	
Sampling Date			2/2018		_	Stable Non- reactive	
Sample ID		HI	P101		Inert Waste	HAZARDOUS	Hazardous
Depth (m)		1	.00		Landfill	waste in non- hazardous Landfill	Waste Landfill
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-						10%
BTEX (μg/kg) **	-				6000		
Sum of PCBs (mg/kg) **	-				1		
Mineral Oil (mg/kg)	-				500		
Total PAH (WAC-17) (mg/kg)	-				100		
pH (units)**	-					>6	
Acid Neutralisation Capacity (mol / kg)	-					To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit valu	es for compliance l	eaching test
/DC FN 12457 2 accounting utilizing and account leading					using BS Ef	N 12457-2 at L/S 10) I/kg (mg/kg)
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg			
Arsenic *	0.0109			0.0793	0.5	2	25
Barium *	0.0057			0.0418	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.010			0.075	0.5	10	70
Copper *	0.0066			0.048	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0029			0.0210	0.5	10	30
Nickel *	< 0.0003			< 0.0030	0.4	10	40
Lead *	0.0087			0.064	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.0077			0.056	4	50	200
Chloride *	0.68			5.0	800	4000	25000
Fluoride	0.44			3.2	10	150	500
Sulphate *	10			73	1000	20000	50000
TDS	54			390	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	2.64			19.2	500	800	1000
Look Tok Tokowskie							
Leach Test Information			1				
Stone Content (%)	-		+				
Sample Mass (kg)	-						
Dry Matter (%)	-						
Moisture (%)	-						
Results are expressed on a dry weight basis, after correction for me	nicture content who	o analianhia			*= IIKAS accredit	ted (liquid eluate an	alveis only)

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.

This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.





7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS

Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

Location Lab Reference (Sample Number)	1 28 37 001 47 71 005	1 Tri	ton Square 909204 //02/2018 HP102 0.30	10:1 mg/kg 0.0226 0.0769 < 0.0008 0.037 0.057	Inert Waste Landfill 3% 6000 1 500 100 Limit valu using BS ER 0.5 20 0.04 0.5	Waste Acceptanc Limits Stable Non- reactive HAZARDOUS waste in non- hazardous Landfill 5% >6 To be evaluated es for compliance le 12457-2 at L/S 10 2 100 1	Hazardous Waste Landfill 6% 10% To be evaluated eaching test
Lab Reference (Sample Number) Sampling Date Sample ID Depth (m) Solid Waste Analysis COC (%)** - COC	1 28 37 001 47 71 005	14	909204 -/02/2018 HP102	mg/kg 0.0226 0.0769 < 0.0008 0.037	Landfill Inert Waste Landfill 3% 6000 1 500 100 Limit valu using BS EP 0.5 20 0.04 0.5	Waste Acceptance Limits Stable Non- reactive HAZARDOUS Waste in non- hazardous Landfill 5% >-6 To be evaluated es for compliance le 12457-2 at L/S 10	Hazardous Waste Landfill 6% 10% To be evaluated eaching test 0 l/kg (mg/kg) 25 300 5
Lab Reference (Sample Number) Sampling Date Sample ID Depth (m) Solid Waste Analysis COC (%)** - COC	1 28 37 001 47 71 005	14	909204 -/02/2018 HP102	mg/kg 0.0226 0.0769 < 0.0008 0.037	Landfill Inert Waste Landfill 3% 6000 1 500 100 Limit valu using BS EP 0.5 20 0.04 0.5	Waste Acceptance Limits Stable Non- reactive HAZARDOUS Waste in non- hazardous Landfill 5% >-6 To be evaluated es for compliance le 12457-2 at L/S 10	Hazardous Waste Landfill 6% 10% To be evaluate eaching test 0 l/kg (mg/kg) 25 300 5
Lab Reference (Sample Number) Sampling Date Sample ID Depth (m) Solid Waste Analysis COC (%)** - COC	1 28 37 001 47 71 005	14	909204 -/02/2018 HP102	mg/kg 0.0226 0.0769 < 0.0008 0.037	Inert Waste Landfill 3% 6000 1 500 100 Limit valu using BS ER 0.5 20 0.04 0.5	Limits Stable Non- reactive HAZARDOUS waste in non- hazardous Landfill 5% >-6 To be evaluated es for compliance le N 12457-2 at L/S 10 2 100 1	Hazardous Waste Landfill 6% 10% To be evaluate eaching test 0 l/kg (mg/kg) 25 300 5
Lab Reference (Sample Number) Sampling Date Sample ID Depth (m) Solid Waste Analysis COC (%)** - COC	1 28 37 001 47 71 005	14	909204 -/02/2018 HP102	mg/kg 0.0226 0.0769 < 0.0008 0.037	Inert Waste Landfill 3% 6000 1 500 100 Limit valu using BS ER 0.5 20 0.04 0.5	Limits Stable Non- reactive HAZARDOUS waste in non- hazardous Landfill 5% >-6 To be evaluated es for compliance le N 12457-2 at L/S 10 2 100 1	Hazardous Waste Landfill 6% 10% To be evaluate eaching test 0 l/kg (mg/kg) 25 300 5
Sampling Date Sample ID Solid Waste Analysis COC (%)**	1 28 37 001 47 71 005	14	/02/2018 HP102	mg/kg 0.0226 0.0769 < 0.0008 0.037	Inert Waste Landfill 3% 6000 1 500 100 Limit valu using BS ER 0.5 20 0.04 0.5	Limits Stable Non- reactive HAZARDOUS waste in non- hazardous Landfill 5% >-6 To be evaluated es for compliance le N 12457-2 at L/S 10 2 100 1	Hazardous Waste Landfill 6% 10% To be evaluate eaching test 0 l/kg (mg/kg) 25 300 5
Depth (m) Dept	1 28 37 001 47 71 005	14	/02/2018 HP102	mg/kg 0.0226 0.0769 < 0.0008 0.037	Landfill 3% 6000 1 500 100 Limit valu using BS EP 0.5 20 0.04 0.5	Stable Non-reactive HAZARDOUS Waste in non-hazardous Landfill 5% >6 To be evaluated es for compliance le 12457-2 at L/S 10 2 100 1	6% 10% To be evaluate eaching test 0 l/kg (mg/kg) 25 300 5
Depth (m) Dept	1 28 37 001 47 71 005		HP102	mg/kg 0.0226 0.0769 < 0.0008 0.037	Landfill 3% 6000 1 500 100 Limit valu using BS EP 0.5 20 0.04 0.5	reactive HAZARDOUS waste in non- hazardous Landfill 5% >6 To be evaluated es for compliance le 12457-2 at L/S 10 2 100 1	6% 10% To be evaluate eaching test 0 l/kg (mg/kg) 25 300 5
Depth (m) Solid Waste Analysis Solid Pick (µg/kg) ** Solid Pick (µg/kg) ** Solid Pick (µg/kg) ** Solid Pick (µg/kg)	1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	Landfill 3% 6000 1 500 100 Limit valu using BS EP 0.5 20 0.04 0.5	waste in non-hazardous Landfill	6% 10% To be evaluate eaching test 0 l/kg (mg/kg) 25 300 5
COC (%)** COC	1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	6000 1 500 100 Limit valu using BS EN 0.5 20 0.04 0.5	5% >6 To be evaluated es for compliance le N 12457-2 at L/S 10 2 100 1	10% To be evaluate eaching test 0 l/kg (mg/kg) 25 300 5
Coss on Ignition (%) ** Coss on Ignition (%) ** Coss on Ignition (%) ** Coss on Ignition (%) ** Coss on Ignition (%) ** Coss of Ignition (%) ** Coss of Ignition (%) C	1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	6000 1 500 100 Limit valu using BS EN 0.5 20 0.04 0.5		10% To be evaluate eaching test 0 l/kg (mg/kg) 25 300 5
ATEX (µg/kg) ** Form of PCBs (mg/kg) ** Form of PCBs (1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	6000 1 500 100 Limit valu using BS Ef 0.5 20 0.04 0.5		To be evaluate eaching test 0 l/kg (mg/kg) 25 300 5
Common C	1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	1 500 100 Limit valu using BS EP 0.5 20 0.04 0.5		
Affineral Oil (mg/kg)	1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	500 100 Limit valu using BS EP 0.5 20 0.04 0.5	>6 To be evaluated es for compliance le N 12457-2 at L/S 10 2 100 1	To be evaluated eaching test l/kg (mg/kg) 25 300 5
Total PAH (WAC-17) (mg/kg)	1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	100 Limit valu using BS EP 0.5 20 0.04 0.5	>6 To be evaluated es for compliance le N 12457-2 at L/S 10 2 100 1	To be evaluated eaching test l/kg (mg/kg) 25 300 5
## (units)** ## (units)* #	1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	 Limit valu using BS EN 0.5 20 0.04 0.5	>6 To be evaluated es for compliance le N 12457-2 at L/S 10 2 100 1	To be evaluate eaching test 1/kg (mg/kg) 25 300 5
Columbia Columbia	1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	 Limit valu using BS ER 0.5 20 0.04 0.5	To be evaluated es for compliance le N 12457-2 at L/S 10	To be evaluated eaching test 0 l/kg (mg/kg) 25 300 5
10: BS EN 12457 - 2 preparation utilising end over end leaching mg. serice * 0.00 serium *	1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	Limit valuusing BS Ef 0.5 20 0.04 0.5	es for compliance le N 12457-2 at L/S 10 2 100 1	25 300 5
BS EN 12457 - 2 preparation utilising end over end leaching mg roccedure) mg varsenic * 0.000	1 28 37 001 47 71 005			mg/kg 0.0226 0.0769 < 0.0008 0.037	0.5 20 0.04 0.5	2 100 1	25 300 5
BS EN 12457 - 2 preparation utilising end over end leaching mg voccedure) Arsenic * 0.00 Arsenic * 0.00 Cadmium * 0.00 Cadmium * 0.00 Cadmium * 0.00 Copper	1 28 37 001 47 71 005			0.0226 0.0769 < 0.0008 0.037	0.5 20 0.04 0.5	2 100 1	25 300 5
mg senic * 0.00	28 07 001 17 71 005			0.0226 0.0769 < 0.0008 0.037	0.5 20 0.04 0.5	2 100 1	25 300 5
Cadmium * Cadm	97 901 17 71 905			0.0769 < 0.0008 0.037	20 0.04 0.5	100	300 5
Cadmium * < 0.0	001 17 71 005			< 0.0008 0.037	0.04 0.5	1	5
Chromium * 0.00 Chopper * 0.000 71 005			0.037	0.5			
Copper * 0.00 Mercury * < 0.0	71 005 29					10	70
Aercury * < 0.0	005 29			0.057			/0
Molybdenum * 0.00 lickel * < 0.0	29				2	50	100
dickel * < 0.0 ead * 0.00 1.00 1.00 1.00 2.00 3.00 3.00 4.00 5.				< 0.0050	0.01	0.2	2
ead *				0.0233	0.5	10	30
Intimony * < 0.0				< 0.0030	0.4	10	40
celenium *				0.074	0.5	10	50
Chloride * 0.00 Chloride * 2.7 Eluoride 0.3 Sulphate * 31 TDS 86				< 0.017	0.06	0.7	5
Chloride * 2.7				< 0.040	0.1	0.5	7
Gluoride 0.3 Sulphate * 31 TDS 86				0.057	4	50	200
Sulphate * 31 TDS 86				22	800	4000	25000
TDS 86)			2.9 250	1000	150 20000	500 50000
				690	4000	60000	100000
Phenol Index (Monhydric Phenols) * < 0.0	10			< 0.10	1	-	-
DOC 6.3				50.7	500	800	1000
0.3				30.7	300	800	1000
each Test Information							
Stone Content (%) Sample Mass (kg)		1					
Ory Matter (%)					1	1	
Noisture (%)					1	1	
					1	1	
					1		
					1	1	
Results are expressed on a dry weight basis, after correction for moisture cont				1	*= UKAS accredit	ted (liquid eluate and	alysis only)





7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS

Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

Location	
Lab Reference (Sample Number) 17titon Square	
Lab Reference (Sample Number) 999205 Landfill Waste Accept	
Lab Reference (Sample Number) 999205 Landfill Waste Accept	
Lab Reference (Sample Number) 999205 Landfill Waste Accept Limits	
Lab Reference (Sample Number) 999205 Landfill Waste Accept Limits	
Lab Reference (Sample Number) 909205	
Sampling Date 14/02/2018	ance Criteria
Part Part	
Name	
Depth (m) Dept	S Hazardous
TOC (%)** Loss on Ignition (%) ** Loss on Ignition (%) **	- Waste Landfill
Loss on Ignition (%) **	
BTEX (μg/kg) **	6%
Sum of PCBs (mg/kg) ** Mineral Oil (mg/kg)	10%
Mineral Oil (mg/kg) - 500 - Total PAH (WAC-17) (mg/kg) - 100 - pH (units)*** - 100 - Acd Neutralisation Capacity (mol / kg) - Limit values for complian using BS EN 12457-2 at L/s recomplian	
Mineral Oil (mg/kg)	
Total PAH (WAC-17) (mg/kg)	
PH (units)** -	
Acid Neutralisation Capacity (mol / kg)	
Time Time	ed To be evaluated
March Marc	
mg/kg	e leaching test
Arsenic * 0.0087 0.0720 0.5 2 Barium * 0.0066 0.0551 20 100 Cadmium * < 0.0001 < 0.0008 0.04 1 Chromium * 0.011 0.087 0.5 10 Copper * 0.010 0.086 2 50 Mercury * < 0.0005 < 0.0050 0.01 0.2 Molybdenum * 0.0048 0.0399 0.5 10 Nickel *	10 l/kg (mg/kg)
Barium * 0.0066 0.0551 20 100 Cadmium * < 0.0001	
Barium * 0.0066 0.0551 20 100 Cadmium * < 0.0001	25
Cadmium * < 0.0001	300
Chromium * 0.011 0.087 0.5 10 Copper * 0.010 0.086 2 50 Mercury * < 0.0005	5
Copper * 0.010 0.086 2 50 Mercury * < 0.0005	70
Mercury * < 0.0005	100
Molybdenum * 0.0048 0.0399 0.5 10 Nickel * < 0.0003	2
Nickel * < 0.0003	
Lead * 0.0068 0.056 0.5 10 Antimony * < 0.0017	30
Antimony *	40
Selenium * < 0.0040	50
Zinc * 0.0027 0.023 4 50 Chloride * 2.7 23 800 4000 Fluoride 0.24 2.0 10 150 Sulphate * 36 300 1000 20000 TDS 100 860 4000 60000 Phenol Index (Monhydric Phenols) * < 0.010	5
Chloride * 2.7 23 800 4000 Fluoride 0.24 2.0 10 150 Sulphate * 36 300 1000 20000 TDS 100 860 4000 60000 Phenol Index (Monhydric Phenols) * < 0.010	7
Fluoride 0.24 2.0 10 150 Sulphate * 36 300 1000 20000 TDS 100 860 4000 60000 Phenol Index (Monhydric Phenols) * < 0.010 < 0.10 1 - DDC 4.39 36.4 500 800	200
Sulphate * 36 300 1000 20000 TDS 100 860 4000 60000 Phenol Index (Monhydric Phenols) * < 0.010	25000
TDS 100 860 4000 60000 Phenol Index (Monhydric Phenols) * < 0.010	500
Phenol Index (Monhydric Phenols) * < 0.010	50000
DOC 4.39 36.4 500 800	100000
	- -
Leach Test Information	1000
Leach Test Information	
	+
	1
Stone Content (%)	+
Sample Mass (kg)	
Dry Matter (%)	
Moisture (%)	1
	
	1
Results are expressed on a dry weight basis, after correction for moisture content where applicable. *= UKAS accredited (liquid eluate	analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation ** = MCERTS accredited	111





7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS

Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

Waste Acceptance Criteria Analytical	Results					
Report No:		18-76217				
				Client:	CONCEPT	
Location		1 Triton Square				
Lab Reference (Samula Number)				Landfill	e Criteria	
Lab Reference (Sample Number)		909206				
Sampling Date		13/02/2018			Stable Non-	
Sample ID		HP103			reactive	
Depth (m)		0.30		Inert Waste Landfill	HAZARDOUS waste in non- hazardous Landfill	Hazardous Waste Landfill
Solid Waste Analysis						
FOC (%)**	-			3%	5%	6%
oss on Ignition (%) **	-					10%
BTEX (μg/kg) **	-			6000		
Sum of PCBs (mg/kg) **	-			1		
Mineral Oil (mg/kg)	-			500		
Fotal PAH (WAC-17) (mg/kg)	-			100		
oH (units)**	 				>6	
			-			
Acid Neutralisation Capacity (mol / kg)	-				To be evaluated	To be evaluated
Eluate Analysis	10.1		10.1	Limit valu	es for compliance le	eaching test
nuce Analysis	10:1		10:1			
(BS EN 12457 - 2 preparation utilising end over end leaching				using BS Ef	l 12457-2 at L/S 10	l/kg (mg/kg)
procedure)	mg/l		mg/kg			
Arsenic *	0.0066		0.0550	0.5	2	25
Barium *	0.0108		0.0897	20	100	300
Cadmium *	< 0.0001		< 0.0008	0.04	1	5
Chromium *	0.028		0.23	0.5	10	70
Copper *	0.0091		0.076	2	50	100
Mercury *	< 0.0005		< 0.0050	0.01	0.2	2
Molybdenum *	0.0043		0.0362	0.5	10	30
Nickel *	< 0.0003		< 0.0030	0.4	10	40
Lead *	0.024		0.20	0.5	10	50
Antimony *	< 0.0017		< 0.017	0.06	0.7	5
Selenium *	< 0.0017		< 0.040	0.00	0.7	7
Zinc *			0.046	4	50	200
Chloride *	0.0055 15		120	800	4000	
			3.0			25000
Fluoride	0.36			10	150	500
Sulphate *	82		690	1000	20000	50000
TDS	170		1400	4000	60000	100000
Phenol Index (Monhydric Phenols) *	< 0.010		< 0.10	1	-	-
DOC	4.36		36.4	500	800	1000
	1				1	
Leach Test Information	<u> </u>			1		
	1					
				1	1	
Stone Content (%)	-					
Sample Mass (kg)	-					
Ory Matter (%)	-					
Moisture (%)	-	Ī				
. ,						





7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS

Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

Report No:		18-76217					
				Client:	CONCEPT		
Location		1 Triton Square					
Lab Reference (Samula Number)				Landfill	Waste Acceptanc	e Criteria	
Lab Reference (Sample Number)		909207					
Sampling Date		13/02/2018			Stable Non-		
Sample ID		HP103			reactive		
Depth (m)		0.70		Inert Waste Landfill	HAZARDOUS waste in non- hazardous Landfill	Hazardous Waste Landfill	
Solid Waste Analysis							
FOC (%)**	-			3%	5%	6%	
oss on Ignition (%) **	-					10%	
BTEX (μg/kg) **	-			6000			
Sum of PCBs (mg/kg) **	-			1			
Mineral Oil (mg/kg)	-			500			
Fotal PAH (WAC-17) (mg/kg)	-			100			
oH (units)**	 				>6		
Acid Neutralisation Capacity (mol / kg)	-				To be evaluated	To be evaluated	
Eluate Analysis	10.1		10.1	Limit valu	es for compliance le	eaching test	
nate Analysis	10:1		10:1				
(BS EN 12457 - 2 preparation utilising end over end leaching				using BS EN 12457-2 at L/S 10		J I/kg (mg/kg)	
procedure)	mg/l		mg/kg				
Arsenic *	0.0086		0.0712	0.5	2	25	
Barium *	0.0109		0.0905	20	100	300	
Cadmium *	< 0.0001		< 0.0008	0.04	1	5	
Chromium *	0.025		0.20	0.5	10	70	
Copper *	0.0079		0.066	2	50	100	
Mercury *	< 0.0005		< 0.0050	0.01	0.2	2	
Molybdenum *	0.0041		0.0344	0.5	10	30	
Nickel *	< 0.0003		< 0.0030	0.4	10	40	
ead *	0.022		0.18	0.5	10	50	
			< 0.017	0.06	0.7	5	
Antimony *	< 0.0017						
Selenium *	< 0.0040		< 0.040	0.1	0.5	7	
Zinc *	0.0095		0.079	4	50	200	
Chloride *	16		130	800	4000	25000	
Fluoride	0.33		2.8	10	150	500	
Sulphate *	76		640	1000	20000	50000	
TDS	160		1400	4000	60000	100000	
Phenol Index (Monhydric Phenols) *	< 0.010		< 0.10	1	-	-	
DOC	3.85		32.0	500	800	1000	
Leach Test Information							
Stone Content (%)	-						
Sample Mass (kg)	-			1			
Ory Matter (%)	-						
Moisture (%)	-			1	1		
				1	1		
			ı 		1		
					L		





7 Woodshots Meadow Croxley Green Business Park Watford, WD18 8YS

Telephone: 01923 225404 Fax: 01923 237404 email:reception@i2analytical.com

Waste Acceptance Criteria Analytical Report No:		18-7	76217				
The state of the s							
					Client:	CONCEPT	
Location		1 Trito	n Square		_		
					Landfill	Waste Acceptanc	e Criteria
Lab Reference (Sample Number)		909	9208				
Sampling Date		13/0	2/2018			Stable Non-	
Sample ID		B⊦	1201		Inert Waste	reactive HAZARDOUS	Hazardous
Depth (m)		7	.30		Landfill	waste in non- hazardous Landfill	Waste Landfill
Solid Waste Analysis							
TOC (%)**	-				3%	5%	6%
Loss on Ignition (%) **	-						10%
BTEX (µg/kg) **	-				6000		
Sum of PCBs (mg/kg) **	-		1	-	1		
Mineral Oil (mg/kg)	-			+	500		
Total PAH (WAC-17) (mg/kg)	-			-	100		
pH (units)**	-		1			>6	
Acid Neutralisation Capacity (mol / kg)	-					To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit value	es for compliance le	eaching test
(BS EN 12457 - 2 preparation utilising end over end leaching			1	+	using BS EN	N 12457-2 at L/S 10	l/kg (mg/kg)
procedure)	mg/l			mg/kg			
Arsenic *	0.0020		1	0.0138	0.5	2	25
Barium *	0.0060			0.0402	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0009			0.0060	0.5	10	70
Copper *	0.030			0.20	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	0.0124			0.0836	0.5	10	30
Nickel *	0.0018			0.012	0.4	10	40
Lead *	< 0.0010			< 0.010	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	0.023			0.15	0.1	0.5	7
Zinc *	0.011			0.072	4	50	200
Chloride *	13			90	800	4000	25000
Fluoride	0.88		1	6.0	10	150	500
Sulphate *	48		1	320	1000	20000	50000
TDS Phenol Index (Monhydric Phenols) *	74 < 0.010			500 < 0.10	4000	60000	100000
Friendi Index (Monnyune Friendis)	< 0.010			V 0.10	1	_	
DOC	3.24			21.9	500	800	1000
Leach Test Information							
0 1 1(0)							
Stone Content (%) Sample Mass (kg)	-			+	-	 	
Sample Mass (kg) Dry Matter (%)	-		1	+		+	
Moisture (%)			+	+		1	
Holstare (70)	-					 	
				1			
		İ		1			
Results are expressed on a dry weight basis, after correction for mo			•			ed (liquid eluate and	shada anka)





Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-PL	w	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.





i2 Analytical Ltd.

Croxley Green

Business Park,

Watford,

t: 01923 225404 **f:** 01923 237404

Herts, WD18 8YS

7 Woodshots Meadow,

Evangelos Kafantaris

Concept Site Investigations Unit 8 Warple Mews Warple Way London W3 0RF

t: 020 88112880

e: Concept Group e: reception@i2analytical.com

Analytical Report Number: 18-77602

Project / Site name: 1 Triton Square Samples received on: 01/03/2018

Your job number: 18-3086 Samples instructed on: 01/03/2018

Your order number: CL1303 Analysis completed by: 07/03/2018

Report Issue Number: 1 **Report issued on:** 07/03/2018

Samples Analysed: 3 water samples

Signed:

Dr Claire Stone Quality Manager

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are : soils - 4 weeks from reporting

leachates - 2 weeks from reporting waters - 2 weeks from reporting asbestos - 6 months from reporting

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Your Order No: CL1303							
Lab Sample Number				917284	917285	917286	
Sample Reference				BH101	BH201	BH202	
Sample Number				None Supplied	None Supplied	None Supplied	
Depth (m)				None Supplied	None Supplied	None Supplied	
Date Sampled				27/02/2018	27/02/2018	27/02/2018	
Time Taken				None Supplied	None Supplied	None Supplied	
			A				
Analytical Payameter	_	Lii det	Sche				
Analytical Parameter (Water Analysis)	Units	nit	tati				
(Water Allarysis)	S	Limit of detection	Accreditation Status				
		_	9				
General Inorganics							
рН	pH Units	N/A	ISO 17025	7.2	7.5	7.1	
Total Cyanide	μg/l	10	ISO 17025	< 10	< 10	< 10	
Chloride	mg/l	0.15	ISO 17025	69	26	76	
Ammoniacal Nitrogen as N	μg/l	15	ISO 17025	140	40	610	
Dissolved Organic Carbon (DOC)	mg/l	0.1	NONE	4.24	3.20	4.25	
Hardness - Total	mgCaCO3/I	1	ISO 17025	217	178	353	
Total Phenois			_		1	1	
Total Phenols (monohydric)	μg/l	10	ISO 17025	< 10	< 10	< 10	
Consisted DAIIs							
Speciated PAHs		0.01		2.24	2.21	0.04	
Naphthalene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
Acenaphthylene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
Acenaphthene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
Fluorene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
Phenanthrene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
Anthracene	μg/l	0.01	ISO 17025 ISO 17025	< 0.01 < 0.01	< 0.01 < 0.01	< 0.01	
Fluoranthene	μg/l	0.01		< 0.01	< 0.01	< 0.01	
Pyrene	μg/l	0.01	ISO 17025 ISO 17025	< 0.01	< 0.01	< 0.01 < 0.01	
Benzo(a)anthracene	μg/l	0.01	ISO 17025 ISO 17025	< 0.01	< 0.01	< 0.01	
Chrysene Benzo(b)fluoranthene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
Benzo(k)fluoranthene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
Benzo(a)pyrene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
Indeno(1,2,3-cd)pyrene	μg/l μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
Dibenz(a,h)anthracene	μg/I μg/I	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
Benzo(ghi)perylene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	
benzo(gni)per yiene	ру/1	0.01	150 17025	\ 0.01	₹ 0.01	₹ 0.01	
Total PAH							
Total EPA-16 PAHs	μq/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	
					-	-	-
Heavy Metals / Metalloids							
Antimony (dissolved)	μg/l	0.4	ISO 17025	< 0.4	0.4	< 0.4	
Arsenic (dissolved)	μg/l	0.15	ISO 17025	0.75	0.66	0.81	
Beryllium (dissolved)	μg/l	0.1	ISO 17025	< 0.1	< 0.1	< 0.1	
Cadmium (dissolved)	μg/l	0.02	ISO 17025	< 0.02	0.02	0.04	
Calcium (dissolved)	mg/l	0.012	ISO 17025	77	65	130	
Chromium (dissolved)	μg/l	0.2	ISO 17025	0.6	< 0.2	< 0.2	
Copper (dissolved)	μg/l	0.5	ISO 17025	5.9	1.7	3.8	
Lead (dissolved)	μg/l	0.2	ISO 17025	0.3	< 0.2	< 0.2	
Magnesium (dissolved)	mg/l	0.005	ISO 17025	6.0	3.7	8.3	
Manganese (dissolved)	μg/l	0.05	ISO 17025	9.8	2.0	170	· · · · · ·
Mercury (dissolved)	μg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	
Nickel (dissolved)	μg/l	0.5	ISO 17025	2.7	2.2	5.5	
Selenium (dissolved)	μg/l	0.6	ISO 17025	6.6	5.7	1.4	
Vanadium (dissolved)	μg/l	0.2	ISO 17025	2.4	1.0	2.0	
Zinc (dissolved)	μg/l	0.5	ISO 17025	8.3	4.1	2.6	





Your Order No: CL1303

Sample Reference	Lab Sample Number		917284	917285	917286				
Sample Number Depth (m) None Supplied None Supplied None Supplied Deta Sampled	•								
Depth (m) Date Sampled 27/02/2018 27									
Date Sampled 27/02/2018 27/02/2018 27/02/2018 27/02/2018 Time Taken None Supplied None Supplie	•					- ''			
None Supplied None Supplied Supplied None Supplied None Supplied Supplied Supplied None Supplied Supplied Supplied Supplied Supplied None Supplied Supplied Supplied Supplied Supplied Supplied Supplied Supplied Supplied Supplied Supplied Supplied Supplied Supplied Supplied Supplied Supplied									
Monoaromatics Monoaromati									
Penzene	Analytical Parameter	Units	Limit of detection	Accreditation Status					
Toluene	Monoaromatics								
Ethylbenzene	Benzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
p & m-xylene µg/l 1 ISO 1702S < 1.0 < 1.0 < 1.0 O-xylene µg/l 1 ISO 1702S < 1.0 < 1.0 < 1.0 MTBE (Methyl Tertiary Butyl Ether) µg/l 1 ISO 1702S < 1.0 < 1.0 < 1.0 Petroleum Hydrocarbons Petroleum Hydrocarbons Petroleum Range Organics (C6 - C10) µg/l 10 NONE < 10.0	Toluene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
P. B. mxylene	Ethylbenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Petroleum Hydrocarbons Petroleum Hydrocarbons Petroleum Range Organics (C6 - C10)	p & m-xylene	μg/l	1		< 1.0	< 1.0	< 1.0		
Petroleum Hydrocarbons Petroleum Range Organics (C6 - C10) μg/l 10 ISO 17025 < 10.0	o-xylene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Petroleum Hydrocarbons Petroleum Range Organics (C6 - C10) μg/l 10 ISO 17025 < 10.0	MTBE (Methyl Tertiary Butyl Ether)	μg/l	1		< 1.0	< 1.0	< 1.0		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Petroleum Range Organics (C6 - C10) Mineral Oil (C10 - C40)	μg/l	10	NONE	< 10.0	< 10.0	< 10.0		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	TDH CMC - Aliohatic > CE - C6	ug/l	1	ICO 1702E	~ 1 N	< 1.0	< 1.0		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		1.5							
TPH-CWG - Aliphatic >C10 - C12 μg/l 10 NONE < 10 < 10 < 10 TDM < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 < 10 <									
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$									
TPH-CWG - Aliphatic > C16 - C21 μg/l 10 NONE < 10 < 10 < 10 TPH-CWG - Aliphatic > C21 - C35 μg/l 10 NONE < 10		1.5							
TPH-CWG - Aliphatic > C21 - C35 μg/l 10 NONE < 10									
TPH-CWG - Aliphatic > C35 - C44 μg/l 10 NONE < 10		1.5							
TPH-CWG - Aliphatic (C5 - C35) μg/l 10 NONE < 10 < 10 < 10 TPH-CWG - Aliphatic (C5 - C44) μg/l 10 NONE < 1.0									
TPH-CWG - Aliphatic (C5 - C44) μg/l 10 NONE < 10 < 10 < 10 TPH-CWG - Aromatic > C5 - C7 μg/l 1 ISO 17025 < 1.0									
TPH-CWG - Aromatic >C5 - C7 μg/l 1 ISO 17025 < 1.0	. , ,								
TPH-CWG - Aromatic > C7 - C8 μg/l 1 ISO 17025 < 1.0		P3/ ·			- 10	- 20			
TPH-CWG - Aromatic > C7 - C8 μg/l 1 ISO 17025 < 1.0	TPH-CWG - Aromatic >C5 - C7	ua/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic > C8 - C10									
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$									
TPH-CWG - Aromatic > C12 - C16 μg/l 10 NONE < 10									
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	TPH-CWG - Aromatic >C12 - C16		10	NONE	< 10	< 10	< 10		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						< 10	< 10		
TPH-CWG - Aromatic >C35 - C44 μg/l 10 NONE < 10 < 10 < 10 TPH-CWG - Aromatic (C5 - C35) μg/l 10 NONE < 10 < 10 < 10 TPH-CWG - Aromatic (C5 - C44) μg/l 10 NONE < 10 < 10 < 10 TPH-CWG - Aromatic (C5 - C44) μg/l 10 NONE < 10 < 10	TPH-CWG - Aromatic >C21 - C35	. 5,	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic (C5 - C44) μg/l 10 NONE < 10 < 10 < 10			10		< 10	< 10	< 10		
			10	NONE		< 10	< 10	i	
	TPH-CWG - Aromatic (C5 - C44)	μg/l	10	NONE	< 10	< 10	< 10		
TPH Total C8 - C40 μg/l 10 NONE < 10 < 10 < 10	TPH Total C8 - C40	μg/l	10	NONE	< 10	< 10	< 10		





Your Order No: CL1303							
Lab Sample Number				917284	917285	917286	
Sample Reference				BH101	BH201	BH202	
Sample Number				None Supplied	None Supplied	None Supplied	
Depth (m)				None Supplied	None Supplied	None Supplied	
Date Sampled				27/02/2018	27/02/2018	27/02/2018	
Time Taken	I	ı	I	None Supplied	None Supplied	None Supplied	
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status				
VOCs							
Chloromethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Chloroethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Bromomethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Vinyl Chloride	μg/l μg/l	1	NONE NONE	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	
Trichlorofluoromethane 1,1-Dichloroethene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,1,2-Trichloro-1,2,2-trifluoroethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Cis-1,2-dichloroethene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
MTBE (Methyl Tertiary Butyl Ether)	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,1-Dichloroethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
2,2-Dichloropropane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Trichloromethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,1,1-Trichloroethane 1,2-Dichloroethane	μg/l μg/l	1	ISO 17025 ISO 17025	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	
1,1-Dichloropropene	μg/I μg/I	1	ISO 17025	< 1.0	< 1.0 < 1.0	< 1.0 < 1.0	
Trans-1,2-dichloroethene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Benzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Tetrachloromethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,2-Dichloropropane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Trichloroethene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Dibromomethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Bromodichloromethane	μg/l	1	ISO 17025 ISO 17025	< 1.0 < 1.0	< 1.0	< 1.0	
Cis-1,3-dichloropropene Trans-1,3-dichloropropene	μg/l μg/l	1	ISO 17025	< 1.0	< 1.0 < 1.0	< 1.0 < 1.0	
Toluene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,1,2-Trichloroethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,3-Dichloropropane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Dibromochloromethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Tetrachloroethene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,2-Dibromoethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Chlorobenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,1,1,2-Tetrachloroethane Ethylbenzene	μg/l μg/l	1	ISO 17025 ISO 17025	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	
p & m-Xylene	μg/I	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Styrene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
o-Xylene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,1,2,2-Tetrachloroethane	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Isopropylbenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Bromobenzene n-Propylbenzene	μg/l	1	ISO 17025 ISO 17025	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	
n-Propyibenzene 2-Chlorotoluene	μg/l μg/l	1	ISO 17025 ISO 17025	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	
4-Chlorotoluene	μg/I	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,3,5-Trimethylbenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
tert-Butylbenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,2,4-Trimethylbenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
sec-Butylbenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,3-Dichlorobenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
p-Isopropyltoluene	μg/l	1	ISO 17025 ISO 17025	< 1.0	< 1.0	< 1.0	
1,2-Dichlorobenzene 1,4-Dichlorobenzene	μg/l μg/l	1	ISO 17025 ISO 17025	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	
Butylbenzene	μg/I μg/I	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,2-Dibromo-3-chloropropane	μg/I	1	ISO 17025	< 1.0	< 1.0	< 1.0	
1,2,4-Trichlorobenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	
Hexachlorobutadiene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	-
1,2,3-Trichlorobenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	





Your Order No: CL1303								
Lab Sample Number				917284	917285	917286		
Sample Reference				BH101	BH201	BH202		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
Date Sampled				27/02/2018	27/02/2018	27/02/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs		<u> </u>	<u> </u>					
Aniline	μq/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Phenol	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2-Chlorophenol	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Bis(2-chloroethyl)ether	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
1,3-Dichlorobenzene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
1,2-Dichlorobenzene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
1,4-Dichlorobenzene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Bis(2-chloroisopropyl)ether	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2-Methylphenol	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Hexachloroethane	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Nitrobenzene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
4-Methylphenol Isophorone	μg/l	0.05	NONE NONE	< 0.05 < 0.05	< 0.05 < 0.05	< 0.05 < 0.05		
2-Nitrophenol	μg/l μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2,4-Dimethylphenol	μg/I μg/I	0.05	NONE	< 0.05	< 0.05	< 0.05		
Bis(2-chloroethoxy)methane	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
1,2,4-Trichlorobenzene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Naphthalene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
2,4-Dichlorophenol	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
4-Chloroaniline	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Hexachlorobutadiene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
4-Chloro-3-methylphenol	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2,4,6-Trichlorophenol	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2,4,5-Trichlorophenol	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2-Methylnaphthalene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
2-Chloronaphthalene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Dimethylphthalate 2,6-Dinitrotoluene	μg/l μg/l	0.05	NONE NONE	< 0.05 < 0.05	< 0.05 < 0.05	< 0.05 < 0.05		
Acenaphthylene	μg/I μg/I	0.03	ISO 17025	< 0.03	< 0.03	< 0.03		
Acenaphthene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
2,4-Dinitrotoluene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Dibenzofuran	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
4-Chlorophenyl phenyl ether	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Diethyl phthalate	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
4-Nitroaniline	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Fluorene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Azobenzene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Bromophenyl phenyl ether	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Hexachlorobenzene Phenanthrene	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Anthracene	μg/l	0.01	ISO 17025 ISO 17025	< 0.01 < 0.01	< 0.01 < 0.01	< 0.01 < 0.01		
Carbazole	μg/l μg/l	0.01	NONE	< 0.01	< 0.01	< 0.01		
Dibutyl phthalate	μg/l μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Anthraquinone	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Fluoranthene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Pyrene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Butyl benzyl phthalate	μg/l	0.05	NONE	< 0.05	< 0.05	< 0.05		
Benzo(a)anthracene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Chrysene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(b)fluoranthene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(k)fluoranthene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Benzo(a)pyrene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Indeno(1,2,3-cd)pyrene	μg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01		
Dibenz(a,h)anthracene Benzo(ghi)perylene	μg/l	0.01	ISO 17025 ISO 17025	< 0.01 < 0.01	< 0.01 < 0.01	< 0.01 < 0.01		
рендо(дип)регуюне	μg/l	0.01	130 1/025	< 0.01	< U.U1	< 0.01]	





Your Order No: CL1303

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Lab Sample Number				917284	917285	917286		
Sample Reference				BH101	BH201	BH202		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)	None Supplied	None Supplied	None Supplied					
Date Sampled	27/02/2018	27/02/2018	27/02/2018					
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					
PCBs by GC-MS		0.00003	NONE	. 0.00003	. 0.00003	. 0.00003		· -
PCB Congener 28	mg/l	0.00002	NONE	< 0.00002	< 0.00002	< 0.00002		
PCB Congener 28 PCB Congener 52	mg/l	0.00002	NONE	< 0.00002	< 0.00002	< 0.00002		
PCB Congener 28 PCB Congener 52 PCB Congener 101	mg/l mg/l	0.00002 0.00002	NONE NONE	< 0.00002 < 0.00002	< 0.00002 < 0.00002	< 0.00002 < 0.00002		
PCB Congener 28 PCB Congener 52 PCB Congener 101 PCB Congener 118	mg/l	0.00002 0.00002 0.00002	NONE NONE NONE	< 0.00002 < 0.00002 < 0.00002	< 0.00002 < 0.00002 < 0.00002	< 0.00002 < 0.00002 < 0.00002		
PCBs by GC-MS PCB Congener 28 PCB Congener 52 PCB Congener 101 PCB Congener 118 PCB Congener 138	mg/l mg/l	0.00002 0.00002	NONE NONE	< 0.00002 < 0.00002	< 0.00002 < 0.00002	< 0.00002 < 0.00002		
PCB Congener 28 PCB Congener 52 PCB Congener 101 PCB Congener 118	mg/l mg/l mg/l	0.00002 0.00002 0.00002	NONE NONE NONE	< 0.00002 < 0.00002 < 0.00002	< 0.00002 < 0.00002 < 0.00002	< 0.00002 < 0.00002 < 0.00002		
PCB Congener 28 PCB Congener 52 PCB Congener 101 PCB Congener 118 PCB Congener 138	mg/l mg/l mg/l mg/l	0.00002 0.00002 0.00002 0.00002	NONE NONE NONE	< 0.00002 < 0.00002 < 0.00002 < 0.00002	< 0.00002 < 0.00002 < 0.00002 < 0.00002	< 0.00002 < 0.00002 < 0.00002 < 0.00002		
PCB Congener 28 PCB Congener 52 PCB Congener 101 PCB Congener 118 PCB Congener 138 PCB Congener 153	mg/l mg/l mg/l mg/l mg/l	0.00002 0.00002 0.00002 0.00002 0.00002	NONE NONE NONE NONE	< 0.00002 < 0.00002 < 0.00002 < 0.00002 < 0.00002	< 0.00002 < 0.00002 < 0.00002 < 0.00002 < 0.00002	< 0.00002 < 0.00002 < 0.00002 < 0.00002 < 0.00002		

U/S = Unsuitable Sample I/S = Insufficient Sample





Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Chloride in water	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260. Accredited matrices: SW, PW, GW.	L082-PL	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved inorganic carbon in water by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
DRO (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW.(AI, Cu,Fe,Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Mineral Oil (Waters) C10 - C40	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
PCB's By GC-MS in water	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L028-PL	W	NONE
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	W	ISO 17025
PRO (Waters)	Determination of hydrocarbons C6-C10 by headspace GC-MS. Accredited Matrices SW, PW. GW.	In-house method based on USEPA8260	L088-PL	w	ISO 17025
Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds in leachate by extraction in dichloromethane followed by GC-MS.	In-house method based on USEPA 8270	L102B-PL	W	NONE
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton(Skalar)	L080-PL	W	ISO 17025
Total Hardness of water	Determination of hardness in waters by calculation from calcium and magnesium. Accredited Matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045-PL	W	ISO 17025
TPH in (Water)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L070-PL	W	NONE

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Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
Volatile organic compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.





Evangelos Kafantaris

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Analytical Report Number: 18-78220

Project / Site name: 1 Triton Square Samples received on: 07/03/2018

Your job number: 18-3086 Samples instructed on: 07/03/2018

Your order number: CL1310 Analysis completed by: 14/03/2018

Report Issue Number: 1 Report issued on: 14/03/2018

Samples Analysed: 3 water samples

Signed:

Jordan Hill Reporting Manager

For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are: soils - 4 weeks from reporting

leachates - 2 weeks from reporting waters - 2 weeks from reporting asbestos - 6 months from reporting

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Your Order No: CL1310							
Lab Sample Number				920633	920634	920635	
Sample Reference				BH101	BH201	BH202	
Sample Number				None Supplied	None Supplied	None Supplied	
Depth (m)				None Supplied	None Supplied	None Supplied	
Date Sampled				06/03/2018	06/03/2018	06/03/2018	
Time Taken				None Supplied	None Supplied	None Supplied	
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status				
General Inorganics							
pH	pH Units	N/A	ISO 17025	7.3	7.5	7.3	
Total Cyanide	μg/l	10	ISO 17025	< 10	< 10	< 10	
Chloride	mg/l	0.15	ISO 17025	66	20	85	
Ammoniacal Nitrogen as N	μg/l	15	ISO 17025	280	36	680	
Dissolved Organic Carbon (DOC)	mg/l	0.1	NONE	4.10	3.08	4.70	
Hardness - Total	mgCaCO3/I	1	ISO 17025	265	177	384	
Total Phenols					· · · ·		
Total Phenols (monohydric)	μg/l	10	ISO 17025	< 10	< 10	< 10	
Heavy Metals / Metalloids							
Antimony (dissolved)	μg/l	0.4	ISO 17025	0.4	< 0.4	< 0.4	
Arsenic (dissolved)	μg/l	0.15	ISO 17025	0.78	0.49	0.98	
Beryllium (dissolved)	μg/l	0.1	ISO 17025	< 0.1	< 0.1	0.1	
Cadmium (dissolved)	μg/l	0.02	ISO 17025	< 0.02	< 0.02	< 0.02	
Calcium (dissolved)	mg/l	0.012	ISO 17025	97	65	140	
Chromium (dissolved)	μg/l	0.2	ISO 17025	< 0.2	0.2	0.5	
Copper (dissolved)	μg/l	0.5	ISO 17025	3.0	1.9	12	
Lead (dissolved)	μg/l	0.2	ISO 17025	< 0.2	< 0.2	1.6	
Magnesium (dissolved)	mg/l	0.005	ISO 17025	5.5	3.5	9.0	
Manganese (dissolved)	μg/l	0.05	ISO 17025	9.0	3.8	72	
Mercury (dissolved)	μg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	
Nickel (dissolved)	μg/l	0.5	ISO 17025	1.9	1.4	3.8	
Selenium (dissolved)	μg/l	0.6	ISO 17025	8.6	6.6	2.0	
Zinc (dissolved)	μg/l	0.5	ISO 17025	3.1	1.7	4.3	





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Your Order No: CL1310				020622	020624	020625	r	
Lab Sample Number Sample Reference				920633 BH101	920634 BH201	920635 BH202		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				None Supplied	None Supplied	None Supplied		
				06/03/2018	06/03/2018	06/03/2018		
Date Sampled								
Time Taken			1	None Supplied	None Supplied	None Supplied		
		g _	Accreditation Status					
Analytical Parameter	Units	Limit of detection	red Sta					
(Water Analysis)	<u>द्ध</u>	CH O	ita					
		5 T	tio					
			_					
Monoaromatics								
Benzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Toluene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
Ethylbenzene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
p & m-xylene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
o-xylene	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	<u> </u>	
Between Under seek								
Petroleum Hydrocarbons							1	
Petroleum Range Organics (C6 - C10)	μg/l	10	ISO 17025	< 10.0	< 10.0	< 10.0		
Mineral Oil (C10 - C40)	μg/l	10	NONE	< 10.0	< 10.0	< 10.0		
Diesel Range Organics (C10 - C25)	μg/l	10	NONE	< 10	< 10	< 10	İ	
TPH-CWG - Aliphatic >C5 - C6	μg/l	11	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aliphatic >C6 - C8	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aliphatic >C8 - C10	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aliphatic >C10 - C12	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C12 - C16	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C16 - C21	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C21 - C35	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic >C35 - C44	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic (C5 - C35)	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aliphatic (C5 - C44)	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C5 - C7	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic >C7 - C8	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic >C8 - C10	μg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic >C10 - C12	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C12 - C16	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C16 - C21	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C21 - C35	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic >C35 - C44	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic (C5 - C35)	μg/l	10	NONE	< 10	< 10	< 10		
TPH-CWG - Aromatic (C5 - C44)	μg/l	10	NONE	< 10	< 10	< 10		
TPH Total C8 - C40	μg/l	10	NONE	< 10	< 10	< 10		
_								
PCBs by GC-MS								
PCB Congener 28	μg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 52	μg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 101	μg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 118	μg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 138	μg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 153	μg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
PCB Congener 180	μg/l	0.02	NONE	< 0.02	< 0.02	< 0.02		
	₩ P3/ ·			3.02	3.02	3.02		
PCBs by GC-MS								
Total PCBs	μg/l	0.14	NONE	< 0.14	< 0.14	< 0.14		
10011 003	μ9/1	0.17	INOINL	> 0.1⊤	\ U.1T	\ 0.1⊤		

U/S = Unsuitable Sample I/S = Insufficient Sample





Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Chloride in water	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260. Accredited matrices: SW, PW, GW.	L082-PL	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved inorganic carbon in water by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE
DRO (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW.(Al, Cu,Fe,Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Mineral Oil (Waters) C10 - C40	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
PCB's By GC-MS in water	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L028-PL	W	NONE
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	W	ISO 17025
PRO (Waters)	Determination of hydrocarbons C6-C10 by headspace GC-MS. Accredited Matrices SW, PW. GW.	In-house method based on USEPA8260	L088-PL	w	ISO 17025
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total Hardness of water	Determination of hardness in waters by calculation from calcium and magnesium. Accredited Matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045-PL	W	ISO 17025
TPH in (Water)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L070-PL	W	NONE
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Iss No 18-78220-1 1 Triton Square 18-3086

13. PHOTOGRAPHS

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Unit 8, Warple Mews Warple Way London W3 0RF

CONCEPT SITE INVESTIGATIONS

Tel: 020 8811 2880 Fax: 020 8811 2881 email: si@conceptconsultants.co.uk

Site Name	Longford Place, 1 Triton Square	Job No.	18/3086	HOLE	HP01
Carried out for	Lendlease/British Land Property Management Ltd	Date		Photograph	01



Photograph No 01

Unit 8, Warple Mews Warple Way London W3 0RF

CONCEPT SITE INVESTIGATIONS

Tel: 020 8811 2880 Fax: 020 8811 2881 email: si@conceptconsultants.co.uk

Site Name	Longford Place, 1 Triton Square	Job No.	18/3086	HOLE	HP02
Carried out for	Lendlease/British Land Property Management Ltd	Date		Photograph	02



Photograph No 02

Unit 8, Warple Mews Warple Way London W3 0RF

CONCEPT SITE INVESTIGATIONS

Tel: 020 8811 2880 Fax: 020 8811 2881 email: si@conceptconsultants.co.uk

Site Name	Longford Place, 1 Triton Square	Job No.	18/3086	HOLE	HP03
Carried out for	Lendlease/British Land Property Management Ltd	Date		Photograph	03



Photograph No 03

Appendix B

Fuel tanks information



Petroleum Group LFB Headquarters - 3rd Floor 169 Union Street London SE1 OLL T 020 8555 1200 x30859 F 020 7960 3624 Minicom 020 7960 3629 london-fire.gov.uk

Mr Tim Morgan
Senior Environmental Consultant
Environmental Consulting
Ove Arup & Partners
13 Fitzroy Street
London
W1T 4BO

London Fire and Emergency Planning Authority runs the London Fire Brigade

Date 18 December 2017 Our Ref 02/186354/BCW Your Ref Triton Sq - Longford Place

Dear Mr Morgan,

THE ENVIRONMENTAL INFORMATION REGULATIONS 2004 - ENVIRONMENTAL ENQUIRY

Premises: FORMER FILLING STATION AT LAND BETWEEN 1-7 TRITON SQUARE, NW1 3HG AND LONGFORD STREET, LONDON NW1 3HB.

As requested, a search has been made for information on the above site. A thorough search of current and historical files and databases has revealed no petroleum tank information for the site.

Please note that this report is restricted to matters currently known by the London Fire and Emergency Planning Authority. Although we hold extremely comprehensive records, it is possible that we do not hold any records whatsoever for some solid-filled and very old tanks. This will be for one of the following reasons:-

- The records held by this Authority were passed to it from the Greater London Council in 1986. In 1965 the Greater London Council inherited petroleum related records from the London County Council and the outer London Boroughs / Councils. Some of the outer London records were incomplete.
- 2. For premises where petroleum tanks have been either removed or permanently made safe, the Authority's records have (in a minority of cases) been destroyed; and for these cases the Authority does not hold any records that indicate that there was ever a 'petroleum' interest at the premises.

As you are aware, a fee is levied for the provision of this information and payment should be made in accordance with the invoice, which will be sent under separate cover.

Any queries regarding this letter should be addressed to the Petroleum Group Admin Manager. If you are dissatisfied in any way with the response given, please ask to speak to the Team Leader quoting our reference.

Yours faithfully,

Barry Walford

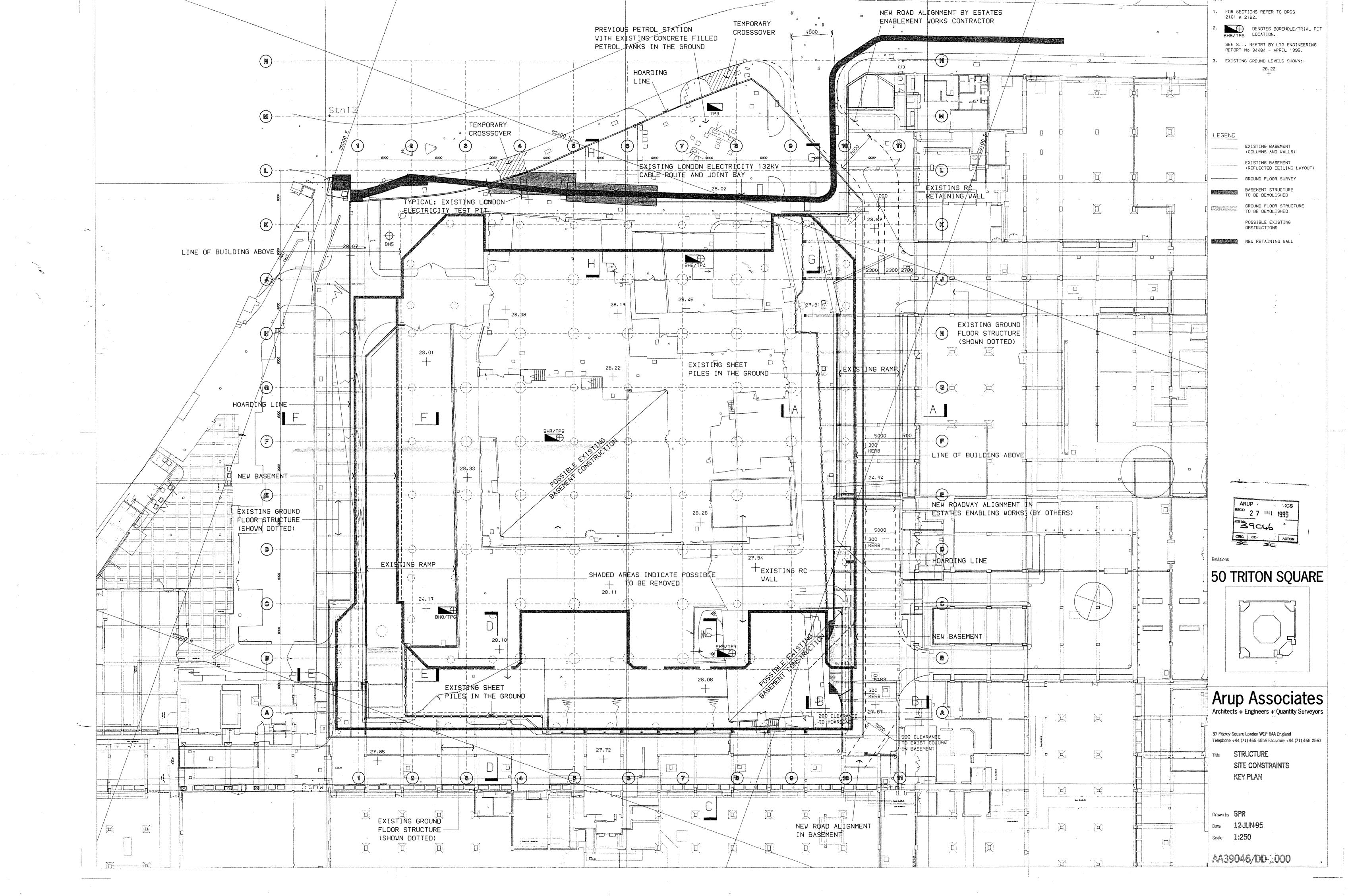
for Assistant Commissioner (Fire Safety)

Directorate of Operations petroleum@london-fire.gov.uk

Reply to Barry Walford Direct **T** 020 85551200 x30858 Direct **F** 020 7960 3624

ENVIRONMENTAL ENQUIRY DETAIL FORM

Premises:	
	D BETWEEN 1-7 TRITON SQUARE, NW1 3HGAND LONGFORD
STREET, LONDON NW1 3HB.	
Our Reference:	
	02/186354/BCW
Current licence / Petroleum Storage	e Certificate in force?
	YES □ NO ☒
Date last licence(s)/storage certifica	ate(s) issued:
	N/A
Known leaks or spills at this site:	
	N/A
Comments:	
The Authority holds no record of petrole	eum storage tanks on this site.
Signed:	Barry Walford
Name:	Barry Walford
Position:	Administrative Officer
Date:	18 December 2017



Appendix C

Risk assessment methodology

C1 Risk assessment methodology

C1.1 Introduction

Land contamination is regulated under several regimes including environmental protection, pollution prevention and control, waste management, planning and development control, and health and safety.

The National Planning Policy Framework (NPPF) places responsibility on the developer of the land for ensuring that development is safe and suitable for use for the purpose for which it is intended, which will include dealing with historical contamination of the ground to the satisfaction of the local authority and Environment Agency. The NPPF defines site investigation information as including a risk assessment of land potentially affected by contamination. It states that all investigations of land potentially affected by contamination should be carried out in accordance with established procedures.

The UK framework for the assessment of contaminated land endorses the principle of a "suitable for use" approach, where remedial action is only required if there are unacceptable risks to health or the environment, taking into account the use of the land and its environmental setting. For land to be determined as contaminated and require remediation (or possibly a change to less sensitive use), all three elements of a source, pathway and receptor (SPR) 'plausible pollutant linkage' (PPL) must be present.

A generic quantitative assessment of the results of the contemporary phase of ground investigation is provided in the report in accordance with the current UK guidance on the assessment of contaminated land and in particular the Contaminated Land Exposure Assessment (CLEA) framework.

C1.2 Human health

C1.2.1 Chemical contamination

C1.2.1.1 Generic assessment criteria

The UK statutory guidance suggests that generic soil quality guideline values may be used for an initial screening of soil contamination results in regard to human health risk assessment. Generic assessment criteria (GAC) provide an indication of concentration in soil below which the long term human health risks for various generic land-use scenarios are considered to be minimal. Concentrations above GAC do not necessarily indicate that significant contamination is present, but rather that further assessment or risk management measures may be warranted.

A generic public open space residential (POS_{resi}) end use has been considered in the assessment to provide an initial screen of the results. The POS_{resi} end use assumes a predominantly grassed area adjacent to high density housing or as a central green area around which houses are located. It is based on assessing risks to a female child using the site on a regular basis (1 hour at a time for 170 days a year). She frequently uses the soft landscaping and is directly exposed to soils being assessed via ingestion, dermal contact, and inhalation of dust and vapour included dust tracked back into the home.

Future users of the site will not come into direct contact with potential contamination in soils or dust on the site. Any soft landscaping will be formed of specified landscaping soils certified for use. Human health exposure during operation of the development will be limited to inhalation of vapour.

Category 4 Screening Levels (C4SLs), released by Defra for some determinands including lead, have been used within this assessment. C4SLs are only available for six contaminants.

Arup has derived GAC, using CLEA v1.07, which use C4SL exposure parameters but maintain the traditional minimal risk toxicological benchmarks. Input data for the toxicological effects, physical characteristics and contaminant fate and transport parameters for the determinands have been taken from sources published by the Environment Agency and other industry sources (including LQM/CIEH [1] and the European Food Safety Authority (EFSA)).

C1.2.1.2 C4SLs

Defra has released a set of Category 4 screening levels (C4SLs) which, according to associated guidance may be applicable under the planning regime in some circumstances.

The Contaminated Land Statutory Guidance (2012) defines four 'categories' of land when considering human health and the water environment to assist in determining whether a site might be "Contaminated Land" under Part 2A. Category 1 and 2 would indicate that the site would be determined; whereas in the case of both 3 and 4 it would not. Land that has been developed which is assessed to be within category 4 should be acceptable under planning. Defra recently confirmed in writing that C4SL (criteria developed to define the boundary between category 3 and category 4) could be used under the planning regime. It states that C4SL provide a simple test for deciding if land is "suitable for use" and definitely not contaminated. A developer may decide that in the cases where they are providing high quality new development that a higher level of protection may be preferred on a voluntary basis, for instance by using generic assessment criteria based on a negligible levels of risk.

A range of modifications of input parameters used in their derivation have been discussed. Since the use of C4SLs in a planning context is yet to be confirmed this assessment has used Arup GACs with consideration of the implications of C4SLs. In general, the C4SLs are higher than the Arup GAC, as by design they include a reduced level of conservatism within at least some of the input parameters used in their derivation. However, due to changes in the toxicological data used to derive assessment criteria for lead the C4SL is below the current Arup GAC for this contaminant and as such these lower assessment criteria have been considered in the assessment.

The conditions assumed in the C4SL calculations include sandy loam soil and 6% SOM. The detailed description of the Made Ground suggest that the soils could reasonable classified within the sandy loam to sandy clay range; the %SOM is low, typically <1%. However, based on the assumption used in the CLEA model neither the % SOM nor the composition of the soil has an impact on the derivation of GAC / C4SL values for lead.

C1.2.2 Asbestos in soil

Work with asbestos in the UK is controlled by the Health and Safety Executive (HSE) and the Control of Asbestos Regulations (CAR) 2012 [2]. Certain activities, such as working with

asbestos insulation, coatings, and insulting board require licensing and notification to the appropriate authority before work commences. All work with asbestos materials must be initially assessed by a competent person and various requirements arise from that assessment.

The HSE has published a Code of Practice for CAR 2012 which does not include specific guidance regulating asbestos in soils. In March 2014 CIRIA published C733 Asbestos in Soil and Made Ground: A guide to understanding and managing risks [3]. Further guidance (a code of practice) has been prepared by the Joint Industry Working Group (JIWG) and was published in July 2016 [4].

In order for asbestos found within soil to pose a risk to health, it has to be present in a form that can release fibres to air for inhalation (or may do after it has been disturbed). The potential for fibre release is likely to be relatively lower when asbestos is present in soil in the form of cements or other 'bonded' materials and higher when friable forms or unconsolidated forms such as 'free fibres' are present. However, even cemented and bonded ACM may eventually degrade and release fibres and can be disturbed and broken during construction for instance.

The release of fibres from the soil into the air can occur via wind-blown disturbance or physical disturbance either during site development (e.g. construction, remediation or earthworks) or during site use after development. The concentration of airborne fibres released is influenced by many factors including asbestos type, ACM type and condition/state, depth, distribution and concentration in soil, soil type, and soil moisture content. There is limited data on the release of airborne fibres from soils in real world environments, but soil moisture content has a particularly significant impact. In laboratory studies, the addition of 5% moisture to a dry soil reduced airborne fibre release by 80-95% and no airborne fibre were detected when the soil moisture content was greater than 15%.

There are currently no generic assessment criteria for asbestos in soils and C733 makes it clear that such criteria are unlikely in the near future due to uncertainties on the mechanisms for fibre release, calculating the likely exposure and the risk of harm at low levels of exposure. Instead the report recommends site specific assessment based on multiple lines of evidence.

There are a number of current initiatives to advance the industries understanding of the way asbestos in soils should be regulated, tested and assessed and further new publications are expected in the next two years.

Analysis has been performed to the lowest possible accredited detection limit routinely reported by laboratories (0.001%) and a robust strategy to sever plausible pollutant linkages will be adopted in the remediation strategy, to reduce exposure as low as reasonably practicable during development and prevent exposure after development.

C1.3 Controlled waters

The framework within which the Environment Agency can work with others to manage and protect groundwater is set out within 'Groundwater protection: Principal and practice (GP3), 2013' [5]. Groundwater and leachability results have been screened against Water Quality Standards (WQS), initially by comparison with the environmental quality standards (EQS) for inland surface water, or where unavailable freshwater EQS. Where EQS screening criteria are not available, the following guidelines and standards have been referred to in this hierarchy:

- UK Drinking Water Standards (DWS);
- Surface Water Abstraction Directive (SWAD); and
- The World Health Organisation (WHO) Guidelines for Drinking Water.

No criteria are available at all for certain other PAH and for TPH. In the absence of criteria for TPH the withdrawn DWS of 0.01mg/kg has been considered as an initial assessment.

C1.4 Waste classification

C1.4.1 Framework

There are three types of permitted landfill (inert, non-hazardous and hazardous) and four principal types of waste, as outlined below.

- Inert; generally uncontaminated natural soils that may be disposed of to an inert landfill. Other materials such as Made Ground may be classified as inert if it contains no hazardous properties and satisfies the inert waste acceptance criteria (WAC).
- Hazardous; defined by the analysis of 'total' chemical parameters to assess the hazard properties. If classed as hazardous it may only be disposed of (following treatment) if it satisfies the TOC and leachability WAC for hazardous waste.
- Stable non-reactive (SNR) hazardous waste; defined in a similar manner to hazardous waste but satisfying stricter WAC. Following treatment, it may be disposed of in specifically designed separate cells in non-hazardous landfills (if the operator has obtained a permit to operate these cells).
- Non-hazardous waste; if the waste is not classified as inert or hazardous then it is non-hazardous. There is no WAC for non-hazardous waste.

C1.4.2 Methodology and background

The following documents were used to carry out the initial waste classification and disposal assessment of Made Ground and natural soil arisings generated by the development:

- Environment Agency, Hazardous Waste, August 2009 Update [6];
- Environment Agency, Hazardous Waste, Technical guidance WM2 2013 [7];
- The Hazardous Waste (England and Wales) Regulations [8]; and
- Table 3.2 of Annex VI to Regulation (EC) No. 1272/2008 [9].

C1.5 References

- [1] The LQM/CIEH (2009) Generic Assessment Criteria for Human Health Risk Assessment, second edition
- [2] HSE (2012) The Control of Asbestos Regulations (CAR).

- [3] CIRIA (2014) C733 Asbestos in soil and Made Ground: a guide to understanding and managing risks.
- [4] CAR-SOILTM (CLAIRE & JIWG) (2016) Control of Asbestos Regulations 2012, Interpretation for Managing and Working with Asbestos in Soil and Construction and Demolition Materials, Industry Guidance.
- [5] Environment Agency (August 2013), Groundwater protection: Principles and practice (GP3), version 1.1.
- [6] Environment Agency (2009), Hazardous Waste August 2009 Update.
- [7] Environment Agency (2013), Hazardous Waste, Technical guidance WM2, version 3.
- [8] The Hazardous Waste (England and Wales) Regulations 2005.
- [9] European CLP Regulations (Updated 2010) CLP-Regulation (EC) No 1272/2008.

Appendix D

Screening results

		Exploratory hole	BH201	BH201	BH201	BH201	BH202	BH202	HP101	HP101	HP102	HP102	HP103	HP:103
Project: Longford Place Human Health Assessment- Soils		Sample depth (m)						1.00						
		Date sampled Strata												
Determinants Stone Content	Units %	Criterion*	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	96		20	6.6	8.1	21	11	12	16	14	8.6	9.2	11	11
Total mass of sample received Asbestos in Soil Screen / Identification Name	kg Type		1.4 Chrysotile	1.6	1.9	1.3	1.4 Chrysotile	1.4	1.8	1.8	1.5	1.4 Chrysotile	1.4	1.4
Asbestos in Soil	Type		Detected	Not-detected	-	-	Detected	Not-detected	Not-detected	Not-detected	Not-detected	Detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2) Asbestos Quantification Total	% %				-	-	< 0.001	-	-	-	-	0.002	-	
General Inorganics H - Automated	pH Units	NC 1595	8.4	9	8.8	8.3	10.8	8.9	8.7	9.7	9.5	10	9.8	10
Fotal Cyanide Fotal Organic Carbon (TOC)	mg/kg %	NC	4.8	0.6	< 0.1	0.6	0.7	0.4	1	0.9	2.7	1.1	0.6	0.7
Soil Organic Matter	%	NC	8.28	1.03	0.00	1.03	1.21	0.69	1.72	1.55	4.66	1.90	1.03	1.21
otal Phenois otal Phenois (monohydric)	mg/kg	#N/A	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
peciated PAHs		4890	0.40	- 0.05			- 0.05	- 0.05				0.32		- 0.05
aphthalene cenaphthylene	mg/kg mg/kg	14800	0.18 < 0.05	< 0.05	:		< 0.05	< 0.05	- :	- 1		0.19	- :	< 0.05
cenaphthene luorene	mg/kg mg/kg	14800 9870	< 0.05		:		< 0.05	< 0.05	- :		- :	0.32 0.36	:	
henanthrene nthracene	mg/kg mg/kg	3070 74100	1.1 0.26	0.48 < 0.05	- 1	- :	< 0.05	< 0.05 < 0.05				3.5 0.69		1.2 0.31
luoranthene yrene	mg/kg mg/kg	3080 7410	2.7 2.3	1 0.92	-	- :	< 0.05	< 0.05		- 1	- 1	4.3 3.6	:	2.8 2.7
enzo(a)anthracene hrysene	mg/kg mg/kg	29 57	1.5 1.6	0.7 0.51	:	-	< 0.05	< 0.05	:	- 1		2.2	:	1.7 1.6
enzo(b)fluoranthene enzo(k)fluoranthene	mg/kg mg/kg	7.2 190	2.3 1.1	0.84	:	- :	< 0.05	< 0.05	- :	- 1	- :	2.7 1.3	- :	2.3 1.3
enzo(a)pyrene ideno(1,2,3-cd)pyrene	mg/kg mg/kg	5.7 NC	2	0.8 0.41	-	-	< 0.05 < 0.05	< 0.05	:	- 1	:	2.4 1.2	:	2.2 1.2
benz(a,h)anthracene enzo(ghi)perylene	mg/kg mg/kg	NC NC	0.19 1.1	< 0.05	:		< 0.05	< 0.05				0.25		0.22
otal PAH	grng			0.40	-							1.0		1.3
peciated Total EPA-16 PAHs	mg/kg	NC	17.1	6.63		-	< 0.80	< 0.80	-	-	-	26.6	-	18.7
eavy Metals / Metalloids	mg/kg	1070	3.7	3.1	< 1.0	1.6	14	2.6	5.4	9.2	12	< 1.0	27	4.3
senic	mg/kg	79 2.2	3.7 16 0.92	3.1 10 0.66	11 0.68	12	14 25 1.3	12 0.98	5.4 18 1.2	14	1.2 8.3 0.77	11 0.58	2.7 14 0.76	4.3 12 0.67
eryllium oron	mg/kg mg/kg	21500	2.2	1.1	0.68	1.4	2.1	1.3	1.5	1.1	1.3	1.9	2.7	1
admium hromium (trivalent)	mg/kg mg/kg	106 1539	0.3 28	< 0.2 21	< 0.2	< 0.2 39	< 0.2	< 0.2 27	< 0.2 31	< 0.2 28	< 0.2 73	< 0.2 21	< 0.2 25	< 0.2 23
pper ad	mg/kg mg/kg	12000 630	64 210	63 130	8.5 12	28 18	400 620	31 130	120 410	130 740	40 240	32 120	58 750	45 660
rcury kel	mg/kg mg/kg	16 231	< 0.3	< 0.3 17	< 0.3	< 0.3 59	< 0.3	< 0.3	< 0.3 27	< 0.3 22	< 0.3	< 0.3	< 0.3	< 0.3
lenium nadium	mg/kg mg/kg	1140 1100	< 1.0 43	< 1.0 33	< 1.0	< 1.0	< 1.0 54	< 1.0 48	< 1.0 52	< 1.0 45	< 1.0 51	< 1.0 32	< 1.0 42	< 1.0
nc	mg/kg	80500	190	96	22	86	240	48	180	170	93	73	210	220
noaromatics nzene	mg/kg	72	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
luene hylbenzene	mg/kg mg/kg	55800 23900											< 0.001	
& m-xylene cylene	mg/kg mg/kg	NC 41000											< 0.001	
IBE (Methyl Tertiary Butyl Ether)	mg/kg	NC NC			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001				< 0.001	< 0.001
troleum Hydrocarbons troleum Range Organics (C6 - C10)	mg/kg	NC	< 0.1	< 0.1			< 0.1	< 0.1				_	< 0.1	< 0.1
neral Oil (C10 - C40) H C10 - C40	mg/kg	NC NC	< 10	< 10		-			-		-		< 10	< 10
H-CWG - Aliphatic >EC5 - EC6	mg/kg mg/kg	575000 (304)			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
H-CWG - Aliphatic >EC6 - EC8 H-CWG - Aliphatic >EC8 - EC10	mg/kg mg/kg	597000 12500				< 0.001	< 0.001	< 0.001	< 0.001			< 0.001	< 0.001	
H-CWG - Aliphatic >EC10 - EC12 H-CWG - Aliphatic >EC12 - EC16	mg/kg mg/kg	12600 12600			< 1.0			< 1.0			< 1.0 4.4	2.9 6.1	< 1.0 < 2.0	
H-CWG - Aliphatic >EC16 - EC21 H-CWG - Aliphatic >EC21 - EC35	mg/kg mg/kg	251000	< 8.0	< 8.0 < 8.0	< 8.0	< 8.0	< 8.0 < 8.0	< 8.0 < 8.0	< 8.0	< 8.0 < 8.0	17 100	20 85	< 8.0 < 8.0	< 8.0
H-CWG - Aliphatic > EC35 - EC44 H-CWG - Aliphatic (EC5 - EC35)	mg/kg mg/kg	251000 NC	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	< 8.4	110 130	72 110	< 8.4	< 8.4
PH-CWG - Aliphatic (EC5 - EC44) PH-CWG - Aromatic >EC5 - EC7	mg/kg mg/kg	NC 72									240 < 0.001	190 < 0.001	< 10	
PH-CWG - Aromatic >EC7 - EC8 PH-CWG - Aromatic >EC8 - EC10	mg/kg mg/kg	55800 5020			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001				< 0.001	< 0.001
PH-CWG - Aromatic >EC10 - EC12	mg/kg	5040 5050	< 1.0	< 1.0					< 1.0	< 1.0	< 1.0	4.1	< 1.0	
PH-CWG - Aromatic >EC12 - EC16 PH-CWG - Aromatic >EC16 - EC21	mg/kg mg/kg	3770	2.3 11 12	< 10	< 10	< 10	< 2.0 < 10 < 10	< 10	60	3.1 57 67	6.3 34 240	14 29 160	10	< 10 19
PH-CWG - Aromatic > EC21 - EC35 PH-CWG - Aromatic > EC35 - EC44	mg/kg mg/kg	3770 3770	< 8.4	< 10	< 8.4	< 10	< 8.4	< 10	66 < 8.4	< 8.4	720	190	< 8.4	< 8.4
PH-CWG - Aromatic (EC5 - EC35) PH-CWG - Aromatic (EC5 - EC44)	mg/kg mg/kg	NC NC	25 25	17 17					130 130	130 130	280 1000	210 390	33 33	29 29
PH (C8 - C10) PH (C8 - C40)	mg/kg mg/kg	NC NC	< 0.1	< 0.1	:	-			-	- 1		:	< 0.1	< 0.1
PH (C10 - C25)	mg/kg	NC	18	16	•	•	< 10	< 10	•	•	-	•	14	16
loromethane loroethane	mg/kg mg/kg	543 601000 (2610)			:	:	< 0.001	< 0.001	:		- 1	:	< 0.001	
omomethane nyl Chloride	mg/kg mg/kg	NC NC			:		< 0.001	< 0.001	:			:	< 0.001	< 0.001 < 0.001
chlorofluoromethane I-Dichloroethene	mg/kg mg/kg	NC 10200 (2230)				-	< 0.001 < 0.001	< 0.001	-		-		< 0.001 < 0.001	< 0.001 < 0.001
1,2-Trichloro 1,2,2-Trifluoroethane s-1,2-dichloroethene	mg/kg mg/kg	NC 1320			:	- :	< 0.001 < 0.001	< 0.001	- :	1	- :	:	< 0.001 < 0.001	< 0.001
BE (Methyl Tertiary Butyl Ether) -Dichloroethane	mg/kg mg/kg	NC 45900			:	:			:	:	-	:	< 0.001	
2-Dichloropropane ichloromethane	mg/kg mg/kg	NC NC			:								< 0.001	
1,1-Trichloroethane	mg/kg mg/kg	137000				- :						- 1	< 0.001	
		20				- :	< 0.001		- :	- 1	- :	:	< 0.001 < 0.001 < 0.001	
2-Dichloroethane 1-Dichloropropene	mg/kg mg/kg	29 NC							-	-	-	-		
2-Dichloroethane I-Dichloropropene ans-1,2-dichloroethene inzene	mg/kg mg/kg mg/kg mg/kg	NC 3866 72			:		< 0.001	< 0.001	-	-	-	-	< 0.001	
-Dichloroethane -Dichloropropene ns-1,2-dichloroethene nzene rachloromethane -Dichloropropane	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NC 3866 72 NC 1720			:		< 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001			:	:	< 0.001	< 0.001
2-Dichloroethane 1-Dichloropropene nas-1,2-dichloroethene nzene trachforomethane 2-Dichloropropane chloroethene toromomethane	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NC 3866 72 NC 1720 NC NC					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001			-		< 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001
2-Dichtoroethane - Dichtoropropene ans-1,2-dichtoroethene ruzene trachioromethane 2-Dichtoropropane chloroethene tromomethane	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NC 3866 72 NC 1720 NC NC NC NC					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	-		:	-	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001
2-Dichtoropropene ans-1,2-dichtoropropene ans-1,2-dichtoroethene rozene trachioromethane trachioromethane chomosthane bromomethane s-1,3-dichtoropropene ans-1,3-dichtoropropene	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NC 3866 72 NC 1720 NC NC NC 73					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	-		-	-	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001
Dichlorocethane Libinhoropropene ans 1,2-dichlorocethene razien trachloromethane Zibinhoropropene chlorocethene chlorocethene zibinhoropropene ans 1,3-dichloropropene lume Li-Ja-dichloropropene lume Li-Ja-dichloropropene	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NC 3866 72 NC 1720 NC NC NC 73 NC					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	-		-		< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001
-Dichloroseñane -Dichloropropene nns-1,2-dichlorosethene nzene nzene Dichloropropane chlorosethene nzonen Dichloropropane chlorosethene 1,3-dichloropropene usene 2,3-dichloropropene usene -Dichloropropene romochloromethane	mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg mg/kg	NC 3866 72 NC 1720 NC NC 73 NC NC S800 985 NC					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001
- Dichlorosethane - Ibchlorosethane - Ibchlorosethene - Ibchlorosethene - Ibchlorosethene - Ibchlorosethane	mg/kg mg/kg	NC 3866 72 NC 1720 NC NC 73 NC NC 55800 985 NC NC NC					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001
2-Dichloroethane 1-Dichloropropene ans 1-2-dichloroethene ans 1-2-dichloroethene ans 1-2-dichloroethene ans 1-2-dichloroethene ans 1-2-dichloroethene 2-Dichloropropane chloroethene 1-1-dichloropropene 1-1-3-dichloropropene 1-1-3-dichloroethane 3-1-3-dichloroethane 1-2-Tierkloroethane 1-2-Tierkloroethane 1-2-Tierkloroethane 1-2-dichloroethane 1-2-dichloroethane 1-2-dichloroethane 1-2-dichloroethane 1-2-dichloroethane	mg/kg mg/kg	NC 3866 72 NC 1720 NC NC NC NC NC S5800 985 NC NC NC NC					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001
2-Dichloroethane 1-Dichloropropene ans 1-2-dichloroethene ans 1-2-dichloroethene ans 1-2-dichloroethene ans 1-2-dichloroethene ans 1-2-dichloroethane 2-Dichloropropene ans 1-3-dichloropropene ans 1-3-dichloropropene ans 1-3-dichloropropene ans 1-3-dichloropropene ans 1-3-dichloroethane 3-Dichloropropene ans 1-3-dichloroethane blockhoroethane and 1-2-dichloroethane blockhoroethane and 1-2-dichloroethane and 1-2	mg/kg mg/kg	NC 3886 72 172 NC 1720 NC 1720 NC NC NC 55800 985 NC NC NC NC NC NC NC NC NC NC NC NC NC					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001
2-Dichlorocethane 1-Dichloropropene ansa-1,2-dichlorocethene ansa-1,2-dichlorocethene ansa-1,2-dichlorocethene ansa-1,2-dichlorocethene 2-Dichloropropane ichlorocethane and ansa-1,3-dichloropropene and ansa-1,3-dichloropropene and ansa-1,3-dichloropropene and ansa-1,3-dichloropropene and ansa-1,3-dichloropropene and ansa-1,2-dichlorocethane and ansa-1,2-dichlorocethane and and ansa-1,2-dichlorocethane and and ansa-1,2-dichlorocethane and ansa-1,2-	mg/kg mg/kg	NC 3886 72 NC 1720 NC 1720 NC NC NC NC NC NC NC NC NC NC NC NC NC					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001					< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001	< 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001 < 0.001

Project: Longford Place													HP103	
Project: Longford Place Human Health Assessment- Soils		Sample depth (m)											0.30	
1,1,2,2-Tetrachloroethane	mg/kg	Date sampled 1420	12.2.18	12.2.18 < 0.001	13.2.18	13.2.18	< 0.001	< 0.001	14.2.18	14.2.18	14.2.18	14.2.18	13.2.18	< 0.00
sopropylbenzene	mg/kg	NC				- :			- 1		- 1		< 0.001	
romobenzene	mg/kg	5217				-			-		-		< 0.001	
-Propylbenzene	mg/kg	NC		< 0.001	-	-	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.00
-Chlorotoluene	mg/kg	NC			-	-	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.00
-Chlorotoluene	mg/kg	NC			-	-	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.00
,3,5-Trimethylbenzene	mg/kg	NC NC			-	-	< 0.001	< 0.001	-	-	-	-	< 0.001	
ert-Butylbenzene ,2,4-Trimethylbenzene	mg/kg	NC 248			-	-			-	-	-		< 0.001	
,2,4-1 Imetriyibenzene ec-Butvibenzene	mg/kg mg/kg	NC.							- 1				< 0.001	
,3-Dichlorobenzene	mg/kg	247								-			< 0.001	
-Isopropyltoluene	mg/kg	NC			-	-			-	-	-	-	< 0.001	
,2-Dichlorobenzene	mg/kg	89000		< 0.001			< 0.001	< 0.001	-	-	-		< 0.001	< 0.00
,4-Dichlorobenzene	mg/kg	17200		< 0.001	-	-	< 0.001	< 0.001	-	-	-	-	< 0.001	
Butylbenzene	mg/kg	NC			-	-	< 0.001	< 0.001	-	-	-	-	< 0.001	< 0.00
,2-Dibromo-3-chloropropane ,2.4-Trichlorobenzene	mg/kg	NC 14900			-	-			-	-	-		< 0.001	
,2,4-1 nchlorobenzene fexachlorobutadiene	mg/kg mg/kg	25							-	-	-		< 0.001	
2.3-Trichlorobenzene	mg/kg	1780										- :	< 0.001	
SVOCs	mgmg	1100											- 0.001	
Iniline	mg/kg	NC	< 0.1	< 0.1			< 0.1	< 0.1	-	-	-		< 0.1	< 0.1
Phenol	mg/kg	NC						< 0.2	-		-		< 0.2	
-Chlorophenol	mg/kg	597				-			-	-	-		< 0.1	
ils(2-chloroethyl)ether	mg/kg	NC								-			< 0.2	
,3-Dichlorobenzene	mg/kg	247				-			-	-	-		< 0.2	
,2-Dichlorobenzene 4-Dichlorobenzene	mg/kg	89000 17200								-			< 0.1	
,4-Dichlorobenzene Bis(2-chloroisopropyl)ether	mg/kg mg/kg	17200 NC											< 0.2	
Sis(2-critorolisopropyrjetner 2-Methylphenol	mg/kg mg/kg	25080				- :			- :		- 1		< 0.1	
-Metrypherior fexachloroethane	mg/kg	124											< 0.05	
litrobenzene	mg/kg	NC											< 0.3	
i-Methylphenol	mg/kg	25080											< 0.2	
sophorone	mg/kg	NC						< 0.2	-		-		< 0.2	
-Nitrophenol	mg/kg	NC	< 0.3	< 0.3			< 0.3	< 0.3		-			< 0.3	
,4-Dimethylphenol	mg/kg	5020				-			-		-		< 0.3	
Bis(2-chloroethoxy)methane	mg/kg	NC			-	-			-	-	-	-	< 0.3	
,2,4-Trichlorobenzene	mg/kg	14900 4890	< 0.3 0.18		-	-			-	-	-	-	< 0.3	
,4-Dichlorophenol	mg/kg mg/kg	4690 597	< 0.3						-	-	-		< 0.05	
-Chloroaniline	mg/kg	NC NC								-			< 0.1	
exachlorobutadiene	mg/kg	25											< 0.1	
-Chloro-3-methylohenol	mg/kg	NC NC								-			< 0.1	
.4,6-Trichlorophenol	mg/kg	598			-	-			-	-	-	-	< 0.1	
4,4,5-Trichlorophenol	mg/kg	NC			-	-			-	-	-	-	< 0.2	
-Methylnaphthalene	mg/kg	NC			-	-			-	-	-	-	< 0.1	
-Chloronaphthalene	mg/kg	7490			-	-			-	-	-	-	< 0.1	
Dimethylphthalate	mg/kg	NC			-	-			-	-	-	-	< 0.1	
2,6-Dinitrotoluene	mg/kg	251 14800	< 0.1	< 0.1	-	-	< 0.1	< 0.1	-	-	-	-	< 0.1	
kcenaphthylene kcenaphthene	mg/kg	14800	< 0.05	< 0.05			< 0.05	< 0.05	-	-	-		< 0.05	
Acenaprimene 2 4-Dinitrotoluene	mg/kg mg/kg	501							-	-	-		< 0.05	
Dibenzofuran	mg/kg	NC.			- :	- :			- :	- 1	- :	- :	< 0.2	
-Chlorophenyl phenyl ether	mg/kg	NC								-			< 0.3	
Diethyl phthalate	mg/kg	49400			-				-	-	-	-	< 0.2	
I-Nitroaniline	mg/kg	NC			-	-			-	-	-	-	< 0.2	
luorene	mg/kg	9870	< 0.05	< 0.05	-	-	< 0.05	< 0.05	-	-	-	-	< 0.05	
Azobenzene	mg/kg	NC NC				-			-	-	-		< 0.3	
Bromophenyl phenyl ether Hexachlorobenzene	mg/kg	NC 16								-			< 0.2	
lexachlorobenzene Phenanthrene	mg/kg	16 3070	< 0.3	< 0.3 0.48						-			< 0.3	< 0.3
menanthrene Inthracene	mg/kg mg/kg	74100	0.26	< 0.05					-				0.29	0.31
Carbazole	mg/kg mg/kg	NC	< 0.3										< 0.3	< 0.3
Dibutyl phthalate	mg/kg	NC NC							-		-		< 0.2	
Inthraquinone	mg/kg	NC	< 0.3	< 0.3			< 0.3	< 0.3		-			< 0.3	
luoranthene	mg/kg	3080	2.7	1				< 0.05		-			2.4	2.8
Pyrene	mg/kg	7410	2.3	0.92			< 0.05	< 0.05		-			2.2	2.7
Butyl benzyl phthalate	mg/kg	126000	< 0.3	< 0.3						-			< 0.3	< 0.3
Senzo(a)anthracene	mg/kg	29 57	1.5 1.6	0.7 0.51			< 0.05	< 0.05		-			1.3	1.7
Chrysene Benzo(b)fluoranthene	mg/kg mg/kg	57 7.2	1.6	0.51						-			1.3	1.6 2.3
senzo(b)fluoranthene Senzo(k)fluoranthene	mg/kg mg/kg	190	1.1	0.84									0.64	1.3
Benzo(a)pyrene	mg/kg	5.7	2	0.8			< 0.05	< 0.05	-				1.6	2.2
ndeno(1,2,3-cd)pyrene	mg/kg	NC	1	0.41			< 0.05	< 0.05					0.94	1.2
Nbenz(a,h)anthracene	mg/kg	NC	0.19	< 0.05			< 0.05	< 0.05	-		-		< 0.05	0.22
lenzo(ghi)perylene	mg/kg	NC	1.1	0.49			< 0.05	< 0.05	-		-		1	1.3
CBs														
CB Congener 077	mg/kg	NC NC											< 0.001	
CB Congener 081	mg/kg													
CB Congener 105 CB Congener 114	mg/kg mg/kg	NC NC					< 0.001	< 0.001					< 0.001	
CB Congener 114 CB Congener 118	mg/kg mg/kg	NC NC											< 0.001	
CB Congener 123	mg/kg	NC NC											< 0.001	
CB Congener 126	mg/kg	NC NC											< 0.001	
CB Congener 156	mg/kg	NC NC											< 0.001	
CB Congener 157	mg/kg	NC			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001				< 0.001	< 0.00
CB Congener 167	mg/kg	NC			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001			< 0.001	< 0.00
		NC.			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001			< 0.001	< 0.00
CB Congener 169	mg/kg													
PCB Congener 189 PCB Congener 189 Total PCBs	mg/kg mg/kg mg/kg	NC NC			< 0.001	< 0.001	< 0.001	< 0.001	< 0.001				< 0.001 < 0.012	

Project: Longford Place Controlled Waters Assessment- G		Sam	atory hole	BH101 1	BH201 1	BH202 1	BH101	BH201	BH202 1
Determinant.	Helle		sampled		27.2.18	27.2.18	06.03.18	06.03.18	06.03.18
Determinants General Inorganics pH	Units pH Units	NC	* Source	7.2	7.5	7.1	7.3	7.5	7.3
Total Cyanide Chloride	μg/l mg/l	NC 250	DWS	< 10 69	< 10 26	< 10 76	< 10 66	< 10 20	< 10 85
Ammoniacal Nitrogen as N Dissolved Organic Carbon (DOC)	μg/l mg/l	NC NC		140 4.24	40 3.2	610 4.25	280 4.1	36 3.08	680 4.7
Hardness - Total	mgCaCO3/I	NC		217	178	353	265	177	384
Total Phenols Total Phenols (monohydric)	μg/l	1000	UK 1989	< 10	< 10	< 10	< 10	< 10	< 10
Speciated PAHs			500	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04	- 0.04
Naphthalene Acenaphthylene Acenaphthene	μg/l μg/l	2 NC NC	EQS	< 0.01 < 0.01 < 0.01	< 0.01 < 0.01 < 0.01	< 0.01 < 0.01 < 0.01	< 0.01 < 0.01 < 0.01	< 0.01 < 0.01 < 0.01	< 0.01 < 0.01 < 0.01
Fluorene Phenanthrene	μg/l μg/l μg/l	NC NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene Fluoranthene	μg/l μg/l	NC NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene Benzo(a)anthracene	μg/l μg/l	NC NC		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene Benzo(b)fluoranthene	μg/l μg/l	NC 0.1	DWS	< 0.01 < 0.01					
Benzo(k)fluoranthene Benzo(a)pyrene	μg/l μg/l	0.1 0.01	DWS DWS	< 0.01	< 0.01 < 0.01	< 0.01 < 0.01	< 0.01 < 0.01	< 0.01 < 0.01	< 0.01
Indeno(1,2,3-cd)pyrene Dibenz(a,h)anthracene	μg/l μg/l	0.1 NC	DWS	< 0.01 < 0.01					
Benzo(ghi)perylene	μg/I	0.1	DWS	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH Total EPA-16 PAHs	μg/l	NC		< 0.16	< 0.16	< 0.16	< 0.16	< 0.16	< 0.16
Heavy Metals / Metalloids									
Antimony (dissolved) Arsenic (dissolved)	μg/l μg/l	5 10	DWS DWS	< 0.4 0.75	0.4 0.66	< 0.4 0.81	0.4 0.78	< 0.4 0.49	< 0.4 0.98
Beryllium (dissolved) Cadmium (dissolved)	μg/l μg/l	NC 5	DWS	< 0.1 < 0.02	< 0.1 0.02	< 0.1	<0.1 < 0.02	<0.1 < 0.02	0.1 < 0.02
Calcium (dissolved) Chromium (dissolved)	mg/l µg/l	250 50	DWS	77 0.6	65 < 0.2	130 < 0.2	97 < 0.2	65 0.2	140 0.5
Copper (dissolved) Lead (dissolved)	μg/l μg/l	2000 10	DWS	5.9 0.3	1.7 < 0.2	3.8 < 0.2	3 < 0.2	1.9 < 0.2	12 1.6
Magnesium (dissolved) Manganese (dissolved)	mg/l µg/l	50 100	UK 1989 EQS	6 9.8	3.7	8.3 170	5.5 9	3.5 3.8	9 72 < 0.05
Mercury (dissolved) Nickel (dissolved)	μg/l μg/l	1 20	DWS DWS	< 0.05 2.7	< 0.05 2.2	< 0.05 5.5	< 0.05 1.9	< 0.05 1.4	3.8
Selenium (dissolved) Vanadium (dissolved) Zinc (dissolved)	μg/l μg/l	10 20 500	EQS EQS EQS	6.6 2.4 8.3	5.7 1 4.1	1.4 2 2.6	8.6 3.1	6.6 1.7	2 4.3
Monoaromatics	µg/l	300	LQS	0.3	4.1	2.0	3.1	1.7	4.5
Benzene Toluene	μg/l μg/l	1 50	DWS DWS	< 1.0 < 1.0					
Ethylbenzene p & m-xylene	μg/l μg/l	20 30	EQS EQS	< 1.0	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0
o-xylene MTBE (Methyl Tertiary Butyl Ether)	μg/l μg/l	30	EQS	< 1.0 < 1.0					
Petroleum Hydrocarbons									
Petroleum Range Organics (C6 - C10) Mineral Oil (C10 - C40)	μg/l μg/l	NC NC		< 10.0 < 10.0					
Diesel Range Organics (C10 - C25) TPH-CWG - Aliphatic >C5 - C6	μg/l μg/l	NC 15000	WHO	< 10 < 1.0					
TPH-CWG - Aliphatic >C6 - C8 TPH-CWG - Aliphatic >C8 - C10	μg/l μg/l	15000 300	WHO WHO	< 1.0 < 1.0					
TPH-CWG - Aliphatic >C10 - C12 TPH-CWG - Aliphatic >C12 - C16	μg/l μg/l	300 300	WHO WHO	< 10	< 10 < 10	< 10 < 10	< 10 < 10	< 10 < 10	< 10
TPH-CWG - Aliphatic >C16 - C21 TPH-CWG - Aliphatic >C21 - C35	μg/l μg/l	NC NC		< 10	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C35 - C44 TPH-CWG - Aliphatic (C5 - C35) TPH-CWG - Aliphatic (C5 - C44)	μg/l μg/l /'	NC NC		< 10 < 10 < 10					
TPH-CWG - Ariginatic (C5 - C44) TPH-CWG - Aromatic > C5 - C7 TPH-CWG - Aromatic > C7 - C8	μg/l μg/l	NC 10 700	WHO WHO	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0	< 1.0 < 1.0
TPH-CWG - Aromatic > C7 - C8 TPH-CWG - Aromatic > C8 - C10 TPH-CWG - Aromatic > C10 - C12	μg/l μg/l μg/l	300 90	WHO WHO	< 1.0 < 1.0 < 10	< 1.0	< 1.0 < 1.0 < 10	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C12 - C16 TPH-CWG - Aromatic >C16 - C21	μg/l μg/l	90 90	WHO	< 10 < 10					
TPH-CWG - Aromatic >C21 - C35 TPH-CWG - Aromatic >C35 - C44	μg/l μg/l	90 NC	WHO	< 10 < 10					
TPH-CWG - Aromatic (C5 - C35) TPH-CWG - Aromatic (C5 - C44)	μg/l μg/l	NC NC		< 10 < 10					
TPH Total C8 - C40	μg/I	NC		< 10	< 10	< 10	< 10	< 10	< 10
VOCs Chloromethane	μg/l	NC		< 1.0	< 1.0	< 1.0			
Chloroethane Bromomethane	μg/l μg/l	NC NC		< 1.0 < 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
Vinyl Chloride Trichlorofluoromethane 1,1-Dichloroethene	μg/l μg/l μg/l	NC NC NC		< 1.0 < 1.0 < 1.0	< 1.0 < 1.0 < 1.0	< 1.0 < 1.0 < 1.0			
1,1,2-Trichloro-1,2,2-trifluoroethane Cis-1,2-dichloroethene	µg/l µg/l µg/l	NC NC		< 1.0 < 1.0 < 1.0	< 1.0 < 1.0 < 1.0	< 1.0 < 1.0 < 1.0			
MTBE (Methyl Tertiary Butyl Ether) 1,1-Dichloroethane	μg/l μg/l	NC NC		< 1.0 < 1.0 < 1.0	< 1.0 < 1.0 < 1.0	< 1.0 < 1.0			
2,2-Dichloropropane Trichloromethane	μg/l μg/l	NC NC		< 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
1,1,1-Trichloroethane 1,2-Dichloroethane	µg/l µg/l	NC NC		< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
1,1-Dichloropropene Trans-1,2-dichloroethene	μg/l μg/l	NC NC		< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
Benzene Tetrachloromethane	μg/l μg/l	1 NC	DWS	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
1,2-Dichloropropane Trichloroethene	μg/l μg/l	NC NC		< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
Dibromomethane Bromodichloromethane	μg/l μg/l	NC NC		< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
Cis-1,3-dichloropropene Trans-1,3-dichloropropene	μg/l μg/l	NC NC		< 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
Toluene 1,1,2-Trichloroethane	μg/l μg/l	50 NC	DWS	< 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
1,3-Dichloropropane Dibromochloromethane	μg/l μg/l	NC NC		< 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
Tetrachloroethene 1,2-Dibromoethane	μg/l μg/l	NC NC		< 1.0	< 1.0	< 1.0			
Chlorobenzene 1,1,1,2-Tetrachloroethane	μg/l μg/l	NC NC	F0-	< 1.0	< 1.0	< 1.0			
Ethylbenzene p & m-Xylene	μg/l μg/l	20 30	EQS EQS	< 1.0	< 1.0	< 1.0			
Styrene Tribromomethane	μg/l μg/l	NC NC	F00	< 1.0 < 1.0	< 1.0 < 1.0 < 1.0	< 1.0 < 1.0 < 1.0			
o-Xylene 1,1,2,2-Tetrachloroethane	μg/l μg/l	NC NC	EQS	< 1.0 < 1.0	< 1.0	< 1.0			
1,1,2,2-1 etrachioroethane Isopropylbenzene	μg/I μg/I	NC NC		< 1.0	< 1.0	< 1.0			

Project: Lapaford Blace	Exploratory hole	BH101	BH201	BH202	BH101	BH201	BH202
Project: Longford Place Controlled Waters Assessment- Groundwater	Sample round				1		
	Date sampled	27.2.18	27.2.18	27.2.18	06.03.18	06.03.18	06.03.18
Bromobenzene µg/l	NC NC	< 1.0	< 1.0 < 1.0	< 1.0			
n-Propylbenzene µg/l 2-Chlorotoluene µg/l	NC NC	< 1.0	< 1.0	< 1.0			
4-Chlorotoluene μg/l	NC	< 1.0	< 1.0	< 1.0			
1,3,5-Trimethylbenzene µg/l	NC	< 1.0	< 1.0	< 1.0			
tert-Butylbenzene µg/l	NC NC	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
1,2,4-Trimethylbenzene µg/l sec-Butylbenzene µg/l	NC NC	< 1.0	< 1.0	< 1.0			
1,3-Dichlorobenzene µg/l	NC	< 1.0	< 1.0	< 1.0			
p-Isopropyltoluene µg/I	NC	< 1.0	< 1.0	< 1.0			
1,2-Dichlorobenzene µg/l	NC NC	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 1.0			
1,4-Dichlorobenzene µg/l Butylbenzene µg/l	NC NC	< 1.0	< 1.0	< 1.0			
1,2-Dibromo-3-chloropropane µg/l	NC	< 1.0	< 1.0	< 1.0			
1,2,4-Trichlorobenzene µg/l	NC	< 1.0	< 1.0	< 1.0			
Hexachlorobutadiene µg/l 1,2,3-Trichlorobenzene µg/l	NC NC	< 1.0	< 1.0	< 1.0			
10		1.0	1.0	- 1.0			
SVOCs Aniline ug/l	NC	< 0.05	< 0.05	< 0.05			
Aniline µg/l Phenol µg/l	NC NC	< 0.05	< 0.05	< 0.05			
2-Chlorophenol µg/l	NC	< 0.05	< 0.05	< 0.05			
Bis(2-chloroethyl)ether μg/l	NC NC	< 0.05	< 0.05	< 0.05			
1,3-Dichlorobenzene µg/l 1,2-Dichlorobenzene µg/l	NC NC	< 0.05 < 0.05	< 0.05 < 0.05	< 0.05 < 0.05			
1,4-Dichlorobenzene µg/l 1,4-Dichlorobenzene µg/l	NC NC	< 0.05	< 0.05	< 0.05			
Bis(2-chloroisopropyl)ether μg/l	NC	< 0.05	< 0.05	< 0.05			
2-Methylphenol µg/l	NC NC	< 0.05	< 0.05	< 0.05			
Hexachloroethane µg/l Nitrobenzene µg/l	NC NC	< 0.05	< 0.05	< 0.05			
4-Methylphenol µg/l	NC	< 0.05	< 0.05	< 0.05			
Isophorone µg/I	NC	< 0.05	< 0.05	< 0.05			
2-Nitrophenol µg/l 2,4-Dimethylphenol µg/l	NC NC	< 0.05	< 0.05	< 0.05			
Bis(2-chloroethoxy)methane µg/l	NC NC	< 0.05	< 0.05	< 0.05			
1,2,4-Trichlorobenzene µg/l	NC	< 0.05	< 0.05	< 0.05			
Naphthalene µg/l	2 EQS	< 0.01	< 0.01	< 0.01			
2,4-Dichlorophenol µg/l 4-Chloroaniline µg/l	NC NC	< 0.05 < 0.05	< 0.05	< 0.05			
Hexachlorobutadiene µg/l	NC	< 0.05	< 0.05	< 0.05			
4-Chloro-3-methylphenol μg/l	NC	< 0.05	< 0.05	< 0.05			
2,4,6-Trichlorophenol µg/l 2,4,5-Trichlorophenol µg/l	NC NC	< 0.05 < 0.05	< 0.05 < 0.05	< 0.05 < 0.05			
2-Methylnaphthalene µg/l	NC NC	< 0.05	< 0.05	< 0.05			
2-Chloronaphthalene µg/l	NC	< 0.05	< 0.05	< 0.05			
Dimethylphthalate μg/l	NC	< 0.05	< 0.05	< 0.05			
2,6-Dinitrotoluene µg/l Acenaphthylene µg/l	NC NC	< 0.05 < 0.01	< 0.05 < 0.01	< 0.05 < 0.01			
Acenaphthene µg/l	NC	< 0.01	< 0.01	< 0.01			
2,4-Dinitrotoluene µg/l	NC	< 0.05	< 0.05	< 0.05			
Dibenzofuran µg/l 4-Chlorophenyl phenyl ether µg/l	NC NC	< 0.05 < 0.05	< 0.05 < 0.05	< 0.05			
Diethyl phthalate µg/l	NC NC	< 0.05	< 0.05	< 0.05			
4-Nitroaniline μg/l	NC	< 0.05	< 0.05	< 0.05			
Fluorene µg/l	NC NC	< 0.01	< 0.01	< 0.01			
Azobenzene µg/l Bromophenyl phenyl ether µg/l	NC NC	< 0.05	< 0.05	< 0.05			
Hexachlorobenzene µg/l	NC	< 0.05	< 0.05	< 0.05			
Phenanthrene µg/l	NC	< 0.01	< 0.01	< 0.01			
Anthracene µg/l Carbazole µg/l	NC NC	< 0.01 < 0.05	< 0.01 < 0.05	< 0.01 < 0.05			
Carbazole µg/l Dibutyl phthalate µg/l	NC NC	< 0.05	< 0.05	< 0.05			
Anthraquinone µg/l	NC	< 0.05	< 0.05	< 0.05			
Fluoranthene µg/l	NC NC	< 0.01	< 0.01	< 0.01			
Pyrene µg/l Butyl benzyl phthalate µg/l	NC NC	< 0.01 < 0.05	< 0.01 < 0.05	< 0.01 < 0.05			
Benzo(a)anthracene µg/l	NC	< 0.01	< 0.01	< 0.01			
Chrysene µg/l	NC	< 0.01	< 0.01	< 0.01			
Benzo(b)fluoranthene µg/l	NC NC	< 0.01	< 0.01	< 0.01			
Benzo(k)fluoranthene µg/l Benzo(a)pyrene µg/l	NC NC	< 0.01	< 0.01	< 0.01			
Indeno(1,2,3-cd)pyrene µg/l	NC	< 0.01	< 0.01	< 0.01			
Dibenz(a,h)anthracene μg/l	NC NC	< 0.01	< 0.01	< 0.01			
Benzo(ghi)perylene µg/l	NC	< 0.01	< 0.01	< 0.01			
PCBs by GC-MS							
PCB Congener 28 mg/l	NC NC	< 0.00002 < 0.00002	< 0.00002 < 0.00002	< 0.00002 < 0.00002		< 0.00002 < 0.00002	
PCB Congener 52 mg/l PCB Congener 101 mg/l	NC NC	< 0.00002	< 0.00002	< 0.00002		< 0.00002	< 0.00002
PCB Congener 118 mg/l	NC	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
PCB Congener 138 mg/l	NC	< 0.00002	< 0.00002	< 0.00002		< 0.00002	
PCB Congener 153 mg/l PCB Congener 180 mg/l	NC NC	< 0.00002 < 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
1 OD Gongoner 100 IIIg/I	NC NC	0.00014	0.00014	0.00014	0.00014	0.00014	0.00014

Project: Longfor	d Place	Explo	ratory hole	BH201	BH201	BH201	BH202	BH202	HP101	HP101	HP102	HP102	HP103	HP103	BH201
Controlled Waters Assessment- Soil		Sample depth (m)		0.3	1	2.5	0.3	1	0.1	1	0.3	1	0.3	1	7.3
Leachate		Date sampled		12.2.18	12.2.18	13.2.18	13.2.18	13.2.18	14.2.18	14.2.18	14.2.18	14.2.18	13.2.18	13.2.18	13.2.18
			Strata												
Determinants	Units	Criterion	Source												
Arsenic	mg/l	0.05	EQS	0.008	0.007	< 0.0011	0.018	0.012	0.010	0.011	0.003	0.009	0.007	0.009	0.002
Barium	mg/l	0.10	EQS	0.007	0.006	0.002	0.007	0.004	0.008	0.006	0.010	0.007	0.011	0.011	0.006
Cadmium	mg/l	0.005	EQS	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Chromium	mg/l	0.05	EQS	0.001	0.002	< 0.0004	0.007	0.004	0.011	0.010	0.005	0.011	0.028	0.025	0.001
Copper	mg/l	0.001	EQS	0.027	0.013	0.001	0.017	0.008	0.011	0.007	0.007	0.010	0.009	0.008	0.030
Mercury	mg/l	0.001	EQS	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Molybdenum	mg/l	0.07	WHO 2004	0.011	0.003	0.002	0.003	0.024	0.002	0.003	0.003	0.005	0.004	0.004	0.012
Nickel	mg/l	0.004	EQS	0.001	0.001	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	0.002
Lead	mg/l	0.05	EQS	0.009	0.012	0.001	0.009	0.003	0.006	0.009	0.009	0.007	0.024	0.022	< 0.0010
Antimony	mg/l	0.005	DWS	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017	< 0.0017
Selenium	mg/l	0.01	EQS	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	0
Zinc	mg/l	0.01	EQS	0	0	0	0	0	0	0	0	0	0	0	0
Chloride	mg/l	NC		1	1	7	5	10	1	1	3	3	15	16	13
Fluoride	mg/l	NC		0.680	0.370	0.190	0.290	0.870	0.490	0.440	0.360	0.240	0.360	0.330	0.880
Sulphate	mg/l	NC		3.200	5.200	3.500	29.000	31.000	10.000	10.000	31.000	36.000	82.000	76.000	48.000
Total Dissolved Solids	mg/l	NC		64	45	22	130	110	56	54	86	100	170	160	74
Phenol Index	mg/l	0.50	DWS	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Dissolved Organic Carbon	mg/l	NC		12.6	5.88	3.36	4.01	4.24	2.9	2.64	6.37	4.39	4.36	3.85	3.24

Project: Longford Place Waste Assessment		Exploratory hole Sample depth (m) Date sampled Strata	BH201 0.3 12.2.18	BH201 1 12.2.18	BH201 2.5 13.2.18	BH201 7.3 13.2.18	BH202 0.3 13.2.18	BH202 1 13.2.18	HP103 0.3 13.2.18	HP103 1 13.2.18	HP101 0.1 14.2.18	HP101 1 14.2.18	HP102 0.3 14.2.18	HP102 1 14.2.18
Determinants	Units	Inert WAC												
Arsenic	mg/kg	0.5	0.0543	0.0586	< 0.0110	0.0138	0.143	0.0891	0.055	0.0712	0.067	0.0793	0.0226	0.072
Barium	mg/kg	20	0.0474	0.053	0.0176	0.0402	0.0556	0.0328	0.0897	0.0905	0.0567	0.0418	0.0769	0.0551
Cadmium	mg/kg	0.04	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008	< 0.0008
Chromium	mg/kg	0.5	0.0092	0.018	< 0.0040	0.006	0.051	0.028	0.23	0.2	0.078	0.075	0.037	0.087
Copper	mg/kg	2	0.19	0.11	< 0.0070	0.2	0.14	0.057	0.076	0.066	0.076	0.048	0.057	0.086
Mercury	mg/kg	0.01	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Molybdenum	mg/kg	0.5	0.0728	0.0215	0.0146	0.0836	0.0269	0.175	0.0362	0.0344	0.0167	0.021	0.0233	0.0399
Nickel	mg/kg	0.4	0.0076	0.0062	< 0.0030	0.012	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030	< 0.0030
Lead	mg/kg	0.5	0.065	0.1	0.01	< 0.010	0.067	0.02	0.2	0.18	0.041	0.064	0.074	0.056
Antimony	mg/kg	0.06	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017	< 0.017
Selenium	mg/kg	0.1	< 0.040	< 0.040	< 0.040	0.15	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040
Zinc	mg/kg	4	0.11	0.12	0.018	0.072	0.02	0.021	0.046	0.079	0.042	0.056	0.057	0.023
Chloride	mg/kg	800	5.8	6.9	50	90	38	74	120	130	4.2	5	22	23
Fluoride	mg/kg	10	4.8	3.1	1.4	6	2.3	6.5	3	2.8	3.5	3.2	2.9	2
Sulphate	mg/kg	1000	22	44	26	320	230	230	690	640	72	73	250	300
Total Dissolved Solids	mg/kg	4000	450	380	170	500	1100	810	1400	1400	400	390	690	860
Phenol Index	mg/kg	1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dissolved Organic Carbon	mg/kg	500	87.5	49.9	25.5	21.9	31.7	31.7	36.4	32	20.3	19.2	50.7	36.4
TOC	%	3%	4.8	0.6	< 0.1	0.6	0.7	0.4	1	0.9	2.7	1.1	0.6	0.7