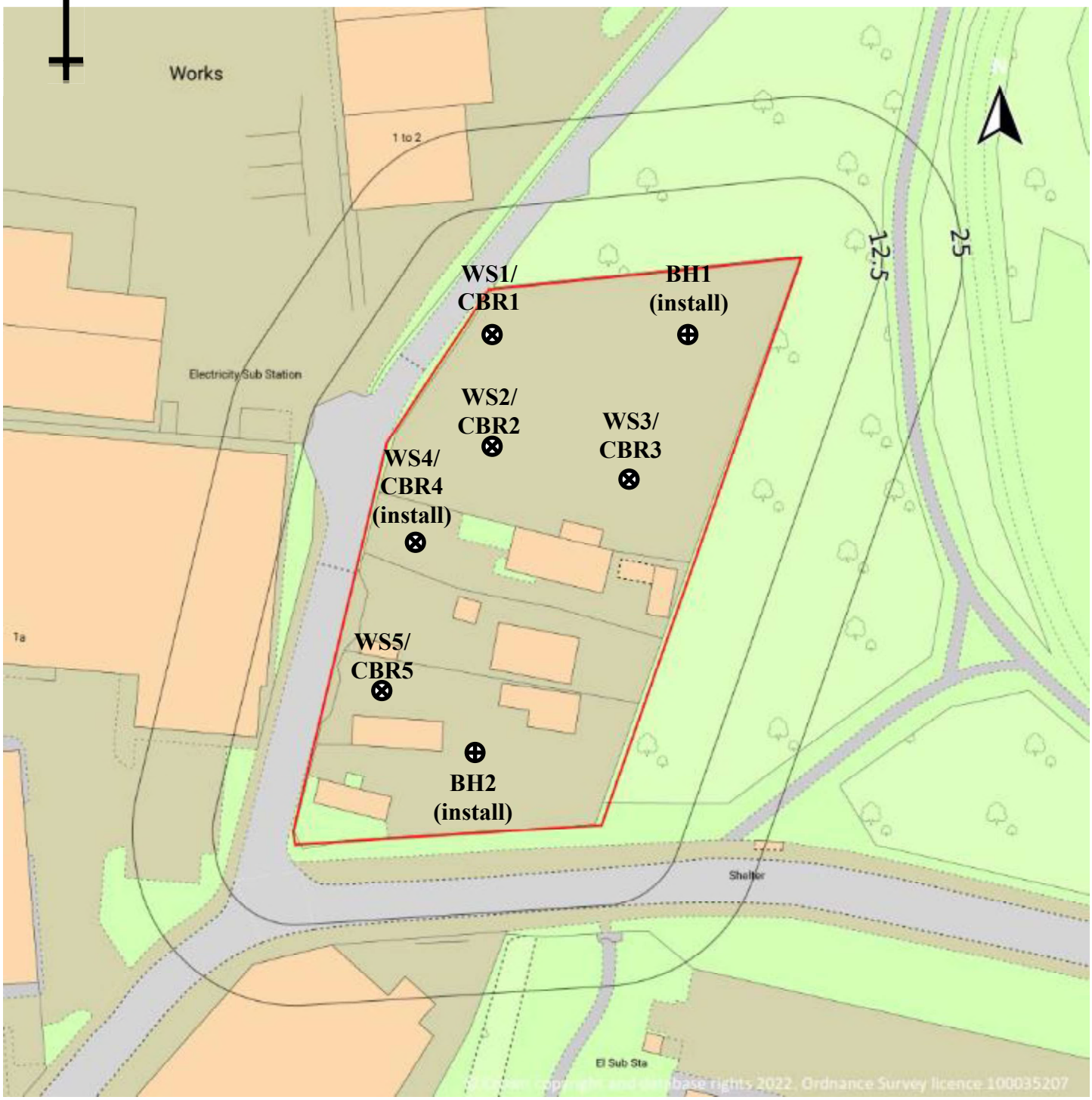
APPENDICES

APPENDIX 1 – FIGURES

PROJECT NAME	Beaches Yard, Horton Road	**CLIENT**	Harvest Land Management Group Ltd
TITLE	Site Location Plan	**PROJECT NO.**	P4398J2568
DATE	May 2022	**FIGURE NO.**	1

PROJECT NAME	Beaches Yard, Horton Road	**CLIENT**	Harvest Land Management
TITLE	Exploratory Hole Location Plan	**PROJECT NO.**	P4398J2568
DATE	May 2022	**FIGURE NO.**	2



APPENDIX 2 – EXPLORATORY HOLE RECORDS

CABLE PERCUSSION BOREHOLE RECORD

		Exploratory Hole No:	**BH1**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	34.286m OD
Logged By:	SK	Date Commenced:	01/06/2022
Checked By:	TE	Date Completed:	01/06/2022
Type and diameter of equipment:	Dando 2000	Sheet No:	1 Of 5

Water levels recorded during boring, m

Date:	01/06/2022					
Hole depth:	25.00					
Casing depth:						
Level water on strike:	2.70					
Water Level after 20mins:	2.40					

Remarks

1: *Field description

2: ** Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature.

3:

4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
									0.00					
											0.10		Compacted gravel surfacing. (MADE GROUND).	
ES	0.25												Brown sandy gravelly clay. Gravel consists of brick. (MADE GROUND).	
ES	0.50								0.50		0.50			
													Dark grey to black sandy gravelly clay. Gravel consists of brick. (MADE GROUND).	
ES	1.00								1.00					
SPT-C	1.20	1	2	2	2	2	2	8			1.30			
													Firm consistency* yellowish brown to grey gravelly clay. (MADE GROUND).	
D	1.50								1.50					
SPT-C	2.00	1	0	0	1	0	0	1	2.00					
ES														
D	2.50								2.50		2.60			
													Clayey sandy gravel with low cobble content. Gravel consists of household waste, wood, plastic and metal. (MADE GROUND).	
SPT-C	3.00	1	1	1	0	1	1	3	3.00					
D	3.50								3.50					
SPT-C	4.00	2	5	6	8	7	7	28	4.00					
D	4.50								4.50					
ES														
SPT-C	5.00	3	2	2	1	0	1	4	5.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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CABLE PERCUSSION BOREHOLE RECORD

		Exploratory Hole No:	**BH1**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	34.286m OD
Logged By:	SK	Date Commenced:	01/06/2022
Checked By:	TE	Date Completed:	01/06/2022
Type and diameter of equipment:	Dando 2000	Sheet No:	2 Of 5

Water levels recorded during boring, m

Date:	01/06/2022					
Hole depth:	25.00					
Casing depth:						
Level water on strike:	2.70					
Water Level after 20mins:	2.40					

Remarks

1: *Field description

2: ** Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature.

3:

4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
SPT-C	5.00	3	2	2	1	0	1	4	5.00				Clayey sandy gravel with low cobble content. Gravel consists of household waste, wood, plastic and metal. (MADE GROUND).	
D ES	5.50								5.50					
									6.00					
SPT-C	6.50	2	4	3	2	1	3	9	6.50					
D ES	7.00								7.00		7.00		Black sand and gravel. Gravel consists of flint and occasional metal. (MADE GROUND).	
									7.50					
SPT-C B	8.00	3	4	5	5	6	7	23	8.00		7.80		Medium dense dark brown SAND and GRAVEL. Gravel consists of flint. (LYNCH HILL GRAVEL MEMBER).	
									8.50					
									9.00		9.20		Stiff consistency* brown silty CLAY. (LONDON CLAY FORMATION).	
SPT-C	9.50	4	5	6	5	6	6	23	9.50					
D	10.00								10.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

CABLE PERCUSSION BOREHOLE RECORD

Exploratory Hole No:	**BH1**		
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	34.286m OD
Logged By:	SK	Date Commenced:	01/06/2022
Checked By:	TE	Date Completed:	01/06/2022
Type and diameter of equipment:	Dando 2000	Sheet No:	3 Of 5

Water levels recorded during boring, m

Date:	01/06/2022					
Hole depth:	25.00					
Casing depth:						
Level water on strike:	2.70					
Water Level after 20mins:	2.40					

Remarks

1: *Field description

2: ** Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature.

3:

4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
D	10.00								10.00				Stiff consistency* brown silty CLAY. (LONDON CLAY FORMATION).	
											10.30			
													Stiff becoming very stiff** grey silty CLAY. (LONDON CLAY FORMATION).	
									10.50					
U	11.00								11.00					
	70 blows for 80% recovery													
									11.50					
									12.00					
SPT	12.50	4	5	6	5	6	6	23	12.50					
D	13.00								13.00					
									13.50					
SPT	14.00	5	7	8	8	9	9	34	14.00					
D	14.50								14.50					
									15.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

CABLE PERCUSSION BOREHOLE RECORD

		Exploratory Hole No:	**BH1**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	34.286m OD
Logged By:	SK	Date Commenced:	01/06/2022
Checked By:	TE	Date Completed:	01/06/2022
Type and diameter of equipment:	Dando 2000	Sheet No:	4 Of 5

Water levels recorded during boring, m

Date:	01/06/2022					
Hole depth:	25.00					
Casing depth:						
Level water on strike:	2.70					
Water Level after 20mins:	2.40					

Remarks

1: *Field description

2: ** Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature.

3:

4:

Sample or Tests									Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
									15.00				Stiff becoming very stiff** grey silty CLAY. (LONDON CLAY FORMATION).	
U	15.50								15.50					
	70 blows for 100% recovery													
									16.00					
									16.50					
SPT	17.00	6	8	8	9	9	10	36	17.00					
D	17.50								17.50					
									18.00					
SPT	18.50	7	8	9	10	10	10	39	18.50					
D	19.00								19.00					
									19.50					
U	20.00								20.00					
	110 blows													

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

CABLE PERCUSSION BOREHOLE RECORD

		Exploratory Hole No:	**BH1**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	34.286m OD
Logged By:	SK	Date Commenced:	01/06/2022
Checked By:	TE	Date Completed:	01/06/2022
Type and diameter of equipment:	Dando 2000	Sheet No:	5 Of 5

Water levels recorded during boring, m

Date:	01/06/2022					
Hole depth:	25.00					
Casing depth:						
Level water on strike:	2.70					
Water Level after 20mins:	2.40					

Remarks

1: *Field description

2: ** Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature.

3:

4:

Sample or Tests									Strata				
Type	Depth (mbgl)	Result							Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N					
U	20.00								20.00			Stiff becoming very stiff** grey silty CLAY. (LONDON CLAY FORMATION).	
	110 blows												
									20.50				
									21.00				
SPT	21.50	10	11	11	12	12	14	49	21.50				
D	22.00								22.00				
									22.50				
SPT	23.00	10	12	12	13	14	11	50	23.00				
D	23.50								23.50				
									24.00				
U	24.50								24.50				
	150 blows for no recovery												
D	25.00								25.00	25.00			

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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CABLE PERCUSSION BOREHOLE RECORD

		Exploratory Hole No:	**BH2**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	33.278m OD
Logged By:	SK	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Dando 2000	Sheet No:	1 Of 5

Water levels recorded during boring, m

Date:	31/05/2022					
Hole depth:	25.00					
Casing depth:						
Level water on strike:	2.60					
Water Level after 20mins:	2.10					

Remarks

1: *Field description

2: Strong hydrocabron odour reported 3.50-5.50mbgl

3: ** Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature.

4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
									0.00					
ES	0.25												Gravel over dark brown silty gravelly sand. Sand is fine to coarse. Gravel consists of fine to coarse angular to rounded flint, brick, concrete, household waste and roof tiles. Possible asbestos containing materials. (MADE GROUND).	
ES	0.50								0.50					
ES	1.00								1.00		1.10			
SPT-C	1.20	2	2	3	2	3	3	11					Black to dark grey slightly gravelly clay. Gravel consists of brick and plastic. (MADE GROUND).	
B														
									1.50					
D	1.90													
ES	2.00								2.00		2.10			
SPT-C		1	0	1	1	0	1	3					Soft consistency* grey silty clay. (MADE GROUND).	
ES														
D	2.50								2.50					
SPT-C	3.00	3	2	2	1	0	0	3	3.00					
											3.50			
D	3.50								3.50				Soft consistency* grey sandy gravelly silt with strong hydrocarbon odour. Gravel consists of flint and wood. (MADE GROUND).	
SPT-C	4.00	2	1	2	1	2	1	6	4.00					
D	4.50								4.50					
ES														
SPT-C	5.00	3	3	4	5	5	6	20	5.00					
B														

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

CABLE PERCUSSION BOREHOLE RECORD

		Exploratory Hole No:	**BH2**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	33.278m OD
Logged By:	SK	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Dando 2000	Sheet No:	2 Of 5

Water levels recorded during boring, m

Date:	31/05/2022					
Hole depth:	25.00					
Casing depth:						
Level water on strike:	2.60					
Water Level after 20mins:	2.10					

Remarks

1: *Field description

2: Strong hydrocabron odour reported 3.50-5.50mbgl

3: ** Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature.

4:

Sample or Tests									Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
SPT-C	5.00	3	3	4	5	5	6	20	5.00					
B													Soft consistency* grey sandy gravelly silt with strong hydrocarbon odour. Gravel consists of flint and wood. (MADE GROUND).	
											5.30			
													Medium dense greyish brown SAND and GRAVEL. Gravel consists of coarse flint. (LYNCH HILL GRAVEL MEMBER).	
									5.50					
									6.00					
SPT-C	6.50	4	5	5	6	6	6	23	6.50					
B														
									7.00					
									7.50					
											7.80			
													Stiff consistency* brown silty CLAY. (LONDON CLAY FORMATION).	
U	8.00								8.00					
	50 blows for 75% recovery													
											8.30			
													Stiff becoming very stiff** bluish grey CLAY. (LONDON CLAY FORMATION).	
									8.50					
									9.00					
SPT	9.50	3	5	6	7	6	8	27	9.50					
D	10.00								10.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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CABLE PERCUSSION BOREHOLE RECORD

		Exploratory Hole No:	**BH2**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	33.278m OD
Logged By:	SK	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Dando 2000	Sheet No:	3 Of 5

Water levels recorded during boring, m

Date:	31/05/2022					
Hole depth:	25.00					
Casing depth:						
Level water on strike:	2.60					
Water Level after 20mins:	2.10					

Remarks

1: *Field description

2: Strong hydrocabron odour reported 3.50-5.50mbgl

3: ** Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature.

4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
D	10.00								10.00				Stiff becoming very stiff** bluish grey CLAY. (LONDON CLAY FORMATION).	
									10.50					
SPT	11.00	4	5	5	6	7	8	26	11.00					
D	11.50								11.50					
									12.00					
U	12.50								12.50					
	70 blows for 60% recovery													
									13.00					
									13.50					
SPT	14.00	5	6	7	7	8	8	30	14.00					
D	14.50								14.50					
									15.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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CABLE PERCUSSION BOREHOLE RECORD

		Exploratory Hole No:	**BH2**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	33.278m OD
Logged By:	SK	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Dando 2000	Sheet No:	4 Of 5

Water levels recorded during boring, m

Date:	31/05/2022					
Hole depth:	25.00					
Casing depth:						
Level water on strike:	2.60					
Water Level after 20mins:	2.10					

Remarks

1: *Field description

2: Strong hydrocabron odour reported 3.50-5.50mbgl

3: ** Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature.

4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
									15.00				Stiff becoming very stiff** bluish grey CLAY. (LONDON CLAY FORMATION).	
SPT	15.50	6	7	7	8	8	9	32	15.50					
D	16.00								16.00					
									16.50					
U	17.00								17.00					
	100 blows for 40% recovery													
									17.50					
									18.00					
SPT	18.50	8	10	10	11	12	12	45	18.50					
D	19.00								19.00					
									19.50					
SPT	20.00	8	9	10	10	12	12	44	20.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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CABLE PERCUSSION BOREHOLE RECORD

		Exploratory Hole No:	**BH2**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	33.278m OD
Logged By:	SK	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Dando 2000	Sheet No:	5 Of 5

Water levels recorded during boring, m

Date:	31/05/2022					
Hole depth:	25.00					
Casing depth:						
Level water on strike:	2.60					
Water Level after 20mins:	2.10					

Remarks

1: *Field description

2: Strong hydrocabron odour reported 3.50-5.50mbgl

3: ** Consistency estimated using semi-empirical correlations with SPT N-values, Plasticity Indices and published literature.

4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
SPT	20.00	8	9	10	10	12	12	44	20.00				Stiff becoming very stiff** bluish grey CLAY. (LONDON CLAY FORMATION).	
D	20.50								20.50					
									21.00					
U	21.50								21.50					
	90 blows for no recovery													
									22.00					
									22.50					
SPT	23.00	10	12	12	13	13	12	50	23.00					
D	23.50								23.50					
									24.00					
SPT	24.50	9	11	11	12	13	13	49	24.50					
									25.00		25.00			

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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WINDOW/WINDOWLESS SAMPLING BOREHOLE RECORD

Exploratory Hole No:	**WS1**		
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	34.529m OD
Logged By:	HAH	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Windowless Sampling Rig	Sheet No:	1 Of 1

Water levels recorded during boring, m

Date:						
Hole depth:						
Casing depth:						
Level water on strike:						
Water Level after 20mins:						

Remarks

1: No groundwater encountered

2: Borehore terminated at 1.3m bgl due to equipment refusal on a suspected timber obstruction.

3:

4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
ES	0.20								0.00		0.30		Black to dark brown gravelly silty sand. Sand is fine to coarse. Gravel consists of fine to coarse angular to sub-angular flint, concrete and brick. (MADE GROUND)	
ES	0.60								0.50		1.30		Brown silty gravelly clay. Gravel consists of fine to coarse angular to rounded flint and brick. (MADE GROUND)	
ES	1.20								1.00					
									1.50					
									2.00					
									2.50					
									3.00					
									3.50					
									4.00					
									4.50					
									5.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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		WINDOW/WINDOWLESS SAMPLING BOREHOLE RECORD	
		Exploratory Hole No:	**WS2**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	35.053m OD
Logged By:	HAH	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Windowless Sampling Rig	Sheet No:	1 Of 2

Water levels recorded during boring, m						
Date:						
Hole depth:						
Casing depth:						
Level water on strike:						
Water Level after 20mins:						

Remarks

1: No groundwater encountered
2:
3:
4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
									0.00					
ES	0.20												Black to dark brown gravelly silty sand. Sand is fine to coarse. Gravel consists of fine to coarse angular to sub-angular flint, concrete and brick. (MADE GROUND)	
									0.50		0.50			
ES	0.70												Black to dark brown gravelly clay with a concrete layer between 0.5m and 0.6m. Gravel consists of fine to coarse angular to rounded flint, brick and concrete. (MADE GROUND)	
SPT	1.00	1	2	2	2	2	2	8	1.00					
									1.50		1.50			
ES	1.60												Black silty slightly gravelly clay. Gravel consists of fine to coarse angular to rounded flint. (MADE GROUND)	
SPT	2.00	1	1	1	1	1	1	4	2.00					
ES	2.50								2.50					
SPT	3.00	1	0	0	1	1	1	3	3.00		3.00			
													Black silty slightly gravelly clay. Gravel consists of fine to coarse angular to rounded flint and frequent plastic bags. (MADE GROUND)	
D	3.50								3.50					
SPT	4.00	2	2	2	3	3	3	11	4.00					
D	4.50								4.50					
SPT	5.00	1	2	3	2	2	2	9	5.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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		WINDOW/WINDOWLESS SAMPLING BOREHOLE RECORD	
		Exploratory Hole No:	**WS2**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	35.053m OD
Logged By:	HAH	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Windowless Sampling Rig	Sheet No:	2 Of 2

Water levels recorded during boring, m						
Date:						
Hole depth:						
Casing depth:						
Level water on strike:						
Water Level after 20mins:						

Remarks

1: No groundwater encountered
2:
3:
4:

Sample or Tests										Strata				
Type	**Depth (mbgl)**	**Result**								**Legend**	**Depth (mbgl)**	**Water Strikes (mbgl)**	**Strata Description**	**Installation**
		75	75	75	75	75	75	N						
SPT	5.00	1	2	3	2	2	2	9	5.00				Black silty slightly gravelly clay. Gravel consists of fine to coarse angular to rounded flint and frequent plastic bags. (MADE GROUND)	
											5.45			
									5.50					
									6.00					
									6.50					
									7.00					
									7.50					
									8.00					
									8.50					
									9.00					
									9.50					
									10.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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WINDOW/WINDOWLESS SAMPLING BOREHOLE RECORD

		Exploratory Hole No:	**WS3**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	33.554m OD
Logged By:	HAH	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Windowless Sampling Rig	Sheet No:	1 Of 2

Water levels recorded during boring, m

Date:						
Hole depth:						
Casing depth:						
Level water on strike:						
Water Level after 20mins:						

Remarks

1: No groundwater encountered
2:
3:
4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
									0.00					
ES	0.10												Black to dark brown gravelly silty sand. Sand is fine to coarse. Gravel consists of fine to coarse angular to sub-angular flint, concrete and brick. (MADE GROUND)	
											0.20			
ES	0.40												Brown to light brown sandy gravelly clay. Sand is fine to medium. Gravel consists of fine to coarse angular to sub-rounded flint and brick. (MADE GROUND)	
									0.50		0.50			
													Firm consistency* slightly sandy gravelly clay. Sand is fine to coarse. Gravel consists of fine to coarse angular to rounded flint, brick and concrete. (MADE GROUND)	
ES	0.90													
SPT	1.00	1	2	2	2	2	2	8	1.00		1.00			
													Brown to dark brown sandy gravelly clay. Sand is fine to coarse. Gravel consists of fine to coarse angular to rounded flint, brick and concrete. (MADE GROUND)	
ES	1.30													
									1.50		1.60			
													Soft consistency* light grey silty gravelly clay with black staining. Gravel consists of fine to coarse angular to sub-rounded flint and brick. (MADE GROUND)	
SPT	2.00	1	0	0	1	2	2	5	2.00					
ES	2.50								2.50					
SPT	3.00	2	2	1	2	2	2	7	3.00					
									3.50					
D	4.00								4.00					
									4.50					
SPT	5.00	1	2	3	2	2	2	9	5.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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WINDOW/WINDOWLESS SAMPLING BOREHOLE RECORD

		Exploratory Hole No:	**WS3**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	33.554m OD
Logged By:	HAH	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Windowless Sampling Rig	Sheet No:	2 Of 2

Water levels recorded during boring, m

Date:						
Hole depth:						
Casing depth:						
Level water on strike:						
Water Level after 20mins:						

Remarks

1: No groundwater encountered
2:
3:
4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
SPT	5.00	1	2	3	2	2	2	9	5.00				Soft consistency* light grey silty gravelly clay with black staining. Gravel consists of fine to coarse angular to sub-rounded flint and brick. (MADE GROUND)	
											5.45			
									5.50					
									6.00					
									6.50					
									7.00					
									7.50					
									8.00					
									8.50					
									9.00					
									9.50					
									10.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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WINDOW/WINDOWLESS SAMPLING BOREHOLE RECORD

		Exploratory Hole No:	**WS4**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	33.284m OD
Logged By:	HAH	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Windowless Sampling Rig	Sheet No:	1 Of 2

Water levels recorded during boring, m

Date:						
Hole depth:						
Casing depth:						
Level water on strike:						
Water Level after 20mins:						

Remarks

1: No groundwater encountered
2:
3:
4:

Sample or Tests										Strata				
Type	Depth (mbgl)	Result								Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N						
ES	0.10								0.00				Black to dark brown gravelly silty sand. Sand is fine to coarse. Gravel consists of fine to coarse angular to sub-angular flint, concrete, glass and brick. (MADE GROUND)	
											0.20			
ES	0.40												Brown sandy gravelly clay. Sand is fine to coarse. Gravel consists of fine to coarse angular to sub-rounded flint, brick, glass and concrete. (MADE GROUND)	
									0.50					
ES	1.00								1.00					
SPT		2	3	4	5	4	3	16			1.10			
													Soft consistency* black to dark grey silty gravelly clay with black staining. Gravel consists of fine to coarse angular to sub-rounded flint and brick. (MADE GROUND)	
									1.50					
ES	2.00								2.00					
SPT		1	2	2	3	1	1	7						
									2.50					
ES	3.00								3.00					
SPT		1	0	0	1	2	2	5						
									3.50					
											4.00			
SPT	4.00	1	2	2	2	2	2	8	4.00				Loose green gravelly SAND. Sand is medium to coarse. Gravel consists of fine to coarse sub-angular to rounded flint. (LYNCH HILL GRAVEL MEMBER)	
ES	4.50								4.50					
SPT	5.00	2	2	2	1	3	2	8	5.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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		WINDOW/WINDOWLESS SAMPLING BOREHOLE RECORD	
		Exploratory Hole No:	**WS4**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	33.284m OD
Logged By:	HAH	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Windowless Sampling Rig	Sheet No:	2 Of 2

Water levels recorded during boring, m						
Date:						
Hole depth:						
Casing depth:						
Level water on strike:						
Water Level after 20mins:						

Remarks

1: No groundwater encountered
2:
3:
4:

Sample or Tests										Strata				
Type	**Depth (mbgl)**	**Result**								**Legend**	**Depth (mbgl)**	**Water Strikes (mbgl)**	**Strata Description**	**Installation**
		75	75	75	75	75	75	N						
SPT	5.00	2	2	2	1	3	2	8	5.00		5.45		Loose green gravelly SAND. Sand is medium to coarse. Gravel consists of fine to coarse sub-angular to rounded flint. (LYNCH HILL GRAVEL MEMBER)	
									5.50					
									6.00					
									6.50					
									7.00					
									7.50					
									8.00					
									8.50					
									9.00					
									9.50					
									10.00					

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

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T: 0843 289 2187 E: info@jomasassociates.com W: www.jomasassociates.com

WINDOW/WINDOWLESS SAMPLING BOREHOLE RECORD

		Exploratory Hole No:	**WS5**
Site Address:	Beaches Yard, Horton Road, West Drayton, UB7 8HX	Project No:	P4398J2568
Client:	Harvest Land Management Group Ltd	Ground Level:	33.170m OD
Logged By:	HAH	Date Commenced:	31/05/2022
Checked By:	TE	Date Completed:	31/05/2022
Type and diameter of equipment:	Windowless Sampling Rig	Sheet No:	1 Of 1

Water levels recorded during boring, m

Date:						
Hole depth:						
Casing depth:						
Level water on strike:						
Water Level after 20mins:						

Remarks

1: No groundwater encountered

2: Borehole terminated at 1.7m bgl due to equipment refusal on an unknown obstruction.

3:

4:

Sample or Tests									Strata				
Type	Depth (mbgl)	Result							Legend	Depth (mbgl)	Water Strikes (mbgl)	Strata Description	Installation
		75	75	75	75	75	75	N					
ES	0.20									0.30		Black to dark brown gravelly silty sand. Sand is fine to coarse. Gravel consists of fine to coarse angular to sub-angular flint, concrete and brick. (MADE GROUND)	
ES	0.60									0.50		Black to dark brown gravelly sandy clay. Sand is fine to coarse. Gravel consists of fine to coarse angular to rounded flint, brick and concrete. (MADE GROUND)	
										0.60		Concrete (MADE GROUND).	
										1.10		Black to dark brown gravelly sandy clay. Sand is fine to coarse. Gravel consists of fine to coarse angular to rounded flint, brick and concrete. (MADE GROUND)	
ES	1.25									1.30		Greenish yellow sandy clay. Sand is fine to medium. (MADE GROUND)	
D	1.40									1.50		White cobble. Cobble consists of sub-angular chalk. (MADE GROUND)	
ES	1.60									1.70		Dark grey to grey gravelly clay. Gravel consists of fine to coarse angular to rounded flint and brick. (MADE GROUND)	

0.00 0.50 1.00 1.50 2.00 2.50 3.00 3.50 4.00 4.50 5.00

Sampling Code: U- Undisturbed B - Large Disturbed D - Small Disturbed W - Water (U*) Non recovery of Sample

Jomas Associates Ltd - Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD
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APPENDIX 3 – CHEMICAL LABORATORY TEST RESULTS

Tom Elbourne
Jomas Associates Ltd
Lakeside House
1 Furzeground Way
Stockley Park
UB11 1BD

e: Jomas Associates -

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 Name: Beaches Yard

Replaces Analytical Report Number: Beaches Yard, issue no. 2
Report format change.

Project / Site name:	Beaches Yard	**Samples received on:**	07/06/2022
Your job number:	JJ2568	**Samples instructed on/ Analysis started on:**	10/06/2022
Your order number:	P4398JJ2568.7	**Analysis completed by:**	07/07/2022
Report Issue Number:	3	**Report issued on:**	30/08/2022
Samples Analysed:	18 soil samples		

Izabela Wójcik
Signed:

Izabela Wójcik
Reporting Specialist
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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307638	2307639	2307640	2307641	2307642
Sample Reference				WS1	WS2	WS2	WS3	WS3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.70	2.50	2.50	0.40
Date Sampled				01/06/2022	01/06/2022	01/06/2022	01/06/2022	01/06/2022
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	35	< 0.1	< 0.1	53	42
Moisture Content	%	0.01	NONE	12	14	6.4	22	6
Total mass of sample received	kg	0.001	NONE	0.8	0.8	0.8	0.8	0.8

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	Chrysotile- Woven Product (Belt)
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	-	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	MDB	N/A	N/A	N/A	MDB

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.3	7.7	7.7	9.8	8.3
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	1.7	3	1.1
Total Sulphate as SO4	mg/kg	50	MCERTS	490	690	3000	3600	260
Total Sulphate as SO4	%	0.005	MCERTS	-	-	-	-	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.061	0.18	1.3	1	0.037
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	60.7	180	1250	1010	37
Total Sulphur	mg/kg	50	MCERTS	-	-	-	-	-
Total Sulphur	%	0.005	MCERTS	-	-	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.5	-	4.1	-	-

Total Phenols

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	< 0.05	< 0.05	1.2	0.66	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	3.2	1.5	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	6.6	3.9	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	12	3.4	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.68	1.3	79	16	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	25	4.2	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.9	3.1	100	13	0.28
Pyrene	mg/kg	0.05	MCERTS	1.7	2.7	87	15	0.36
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.96	1.2	45	6	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.64	1.2	27	4.4	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.1	1.5	47	4.9	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.44	0.76	8.9	1.3	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.7	1.2	33	3.9	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.52	0.74	16	1.8	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	4.2	0.56	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.67	0.88	17	2.1	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	9.27	14.5	514	82.6	< 0.80

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307638	2307639	2307640	2307641	2307642
Sample Reference				WS1	WS2	WS2	WS3	WS3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.70	2.50	2.50	0.40
Date Sampled				01/06/2022	01/06/2022	01/06/2022	01/06/2022	01/06/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	13	19	16	17
Boron (water soluble)	mg/kg	0.2	MCERTS	0.9	2	1.3	1.9	0.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	2.6	1.7	1.5	1.7	6.9
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	7.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	62	42	37	40	39
Copper (aqua regia extractable)	mg/kg	1	MCERTS	64	170	110	200	60
Lead (aqua regia extractable)	mg/kg	1	MCERTS	110	170	380	330	83
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.8	0.8	< 0.3	0.6	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	21	30	38	54	43
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	160	180	320	1500	290
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10) $_{HS\_1D\_TOTAL}$	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	MCERTS	-	-	-	-	-
TPH (C10 - C12) $_{EH\_CU\_1D\_TOTAL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	7.8	< 2.0	< 2.0
TPH (C12 - C16) $_{EH\_CU\_1D\_TOTAL}$	mg/kg	4	MCERTS	< 4.0	< 4.0	140	6.7	6.3
TPH (C16 - C21) $_{EH\_CU\_1D\_TOTAL}$	mg/kg	1	MCERTS	1.3	6.6	990	63	96
TPH (C21 - C40) $_{EH\_CU\_1D\_TOTAL}$	mg/kg	10	MCERTS	14	44	4200	160	110
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	-	-	-
Chloroethane	µg/kg	1	NONE	-	-	-	-	-
Bromomethane	µg/kg	1	ISO 17025	-	-	-	-	-
Vinyl Chloride	µg/kg	1	NONE	-	-	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-	-	-

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307638	2307639	2307640	2307641	2307642
Sample Reference				WS1	WS2	WS2	WS3	WS3
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.70	2.50	2.50	0.40
Date Sampled				01/06/2022	01/06/2022	01/06/2022	01/06/2022	01/06/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	-
Trichloromethane	µg/kg	1	MCERTS	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	-	-
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-	-	-
Dibromomethane	µg/kg	1	MCERTS	-	-	-	-	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	-	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	-	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	-	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	-	-	-
Styrene	µg/kg	1	MCERTS	-	-	-	-	-
Tribromomethane	µg/kg	1	NONE	-	-	-	-	-
o-Xylene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
Bromobenzene	µg/kg	1	MCERTS	-	-	-	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	-

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

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307643	2307644	2307645	2307646	2307647
Sample Reference				WS4	WS4	WS5	BH1	BH1
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	2.00	0.20	0.50	4.50
Date Sampled				01/06/2022	01/06/2022	01/06/2022	01/06/2022	01/06/2022
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	72	43	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	8.3	17	3.3	14	22
Total mass of sample received	kg	0.001	NONE	0.8	0.8	0.8	0.3	0.3
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Amosite	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	-	Not-detected	Not-detected	-
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	0.001	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	0.001	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	MDB	N/A	MDB	MDB	N/A
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8.2	7.9	9.1	8.7	7.9
Total Cyanide	mg/kg	1	MCERTS	< 1.0	-	< 1.0	3.6	3.8
Total Sulphate as SO4	mg/kg	50	MCERTS	980	4200	1200	630	1100
Total Sulphate as SO4	%	0.005	MCERTS	-	0.416	-	-	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.1	0.95	0.14	0.1	0.29
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	101	948	141	101	285
Total Sulphur	mg/kg	50	MCERTS	-	8900	-	-	-
Total Sulphur	%	0.005	MCERTS	-	0.888	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	3.1	-	6.2	-	3.6
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	1	1.4	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	4.2	4	0.4
Acenaphthene	mg/kg	0.05	MCERTS	0.27	-	4.9	7.9	< 0.05
Fluorene	mg/kg	0.05	MCERTS	0.28	-	5	9.3	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	1.4	-	69	91	0.97
Anthracene	mg/kg	0.05	MCERTS	0.45	-	25	30	0.38
Fluoranthene	mg/kg	0.05	MCERTS	2.3	-	130	160	2.2
Pyrene	mg/kg	0.05	MCERTS	2.4	-	140	150	2.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.2	-	130	110	1.6
Chrysene	mg/kg	0.05	MCERTS	1.2	-	110	81	1.3
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.6	-	150	130	2
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.38	-	59	30	1.1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.2	-	110	99	1.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.72	-	52	48	1.1
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.21	-	12	12	0.3
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.9	-	58	54	1.5
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	14.5	-	1060	1020	16.7

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307643	2307644	2307645	2307646	2307647
Sample Reference				WS4	WS4	WS5	BH1	BH1
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	2.00	0.20	0.50	4.50
Date Sampled				01/06/2022	01/06/2022	01/06/2022	01/06/2022	01/06/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	-	7.5	6.4	16
Boron (water soluble)	mg/kg	0.2	MCERTS	0.4	-	0.4	0.4	1.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.5	-	0.7	0.5	3.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	5.3	-	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	37	-	22	16	53
Copper (aqua regia extractable)	mg/kg	1	MCERTS	92	-	49	23	150
Lead (aqua regia extractable)	mg/kg	1	MCERTS	520	-	78	42	220
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5	-	< 0.3	< 0.3	1.8
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	25	-	13	7.9	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	270	-	88	51	360
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10) $_{HS\_1D\_TOTAL}$	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	MCERTS	-	-	-	-	-
TPH (C10 - C12) $_{EH\_CU\_1D\_TOTAL}$	mg/kg	2	MCERTS	< 2.0	-	< 2.0	< 2.0	< 2.0
TPH (C12 - C16) $_{EH\_CU\_1D\_TOTAL}$	mg/kg	4	MCERTS	< 4.0	-	40	43	9.5
TPH (C16 - C21) $_{EH\_CU\_1D\_TOTAL}$	mg/kg	1	MCERTS	9	-	410	290	200
TPH (C21 - C40) $_{EH\_CU\_1D\_TOTAL}$	mg/kg	10	MCERTS	94	-	2600	1700	1900
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	-	-	-
Chloroethane	µg/kg	1	NONE	-	-	-	-	-
Bromomethane	µg/kg	1	ISO 17025	-	-	-	-	-
Vinyl Chloride	µg/kg	1	NONE	-	-	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-	-	-

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307643	2307644	2307645	2307646	2307647
Sample Reference				WS4	WS4	WS5	BH1	BH1
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	2.00	0.20	0.50	4.50
Date Sampled				01/06/2022	01/06/2022	01/06/2022	01/06/2022	01/06/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	-
Trichloromethane	µg/kg	1	MCERTS	-	-	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-	-	-
Benzene	µg/kg	1	MCERTS	-	-	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-	-	-
Dibromomethane	µg/kg	1	MCERTS	-	-	-	-	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	-	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	-	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	-	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	-	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	-	-	-
Styrene	µg/kg	1	MCERTS	-	-	-	-	-
Tribromomethane	µg/kg	1	NONE	-	-	-	-	-
o-Xylene	µg/kg	1	MCERTS	-	-	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-	-	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
Bromobenzene	µg/kg	1	MCERTS	-	-	-	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	-	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
Butylbenzene	µg/kg	1	MCERTS	-	-	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	-	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	-	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	-	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	-	-	-

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

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307648	2307649	2307650	2307651	2307652
Sample Reference				BH1	BH2	BH2	BH2	BH2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				5.50	0.50	2.00	4.50	11.50
Date Sampled				01/06/2022	01/06/2022	01/06/2022	01/06/2022	01/06/2022
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	39	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	16	14	27	20	19
Total mass of sample received	kg	0.001	NONE	0.3	0.8	0.8	0.8	0.5
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Amosite-Sheeting/Board Debris	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	Detected	-	-	-
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	MDB	N/A	N/A	N/A
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	7.9	7.6	7.4	8	8.3
Total Cyanide	mg/kg	1	MCERTS	-	1.1	-	< 1.0	-
Total Sulphate as SO4	mg/kg	50	MCERTS	3400	3700	3500	1700	710
Total Sulphate as SO4	%	0.005	MCERTS	0.336	-	0.35	-	0.071
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	1.1	1.1	0.99	0.66	0.33
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	1050	1110	993	655	332
Total Sulphur	mg/kg	50	MCERTS	8300	-	3600	-	5200
Total Sulphur	%	0.005	MCERTS	0.833	-	0.359	-	0.517
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-	-	-	-	-
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	-	0.74	-	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	0.61	-	0.25	-
Acenaphthene	mg/kg	0.05	MCERTS	-	1	-	0.68	-
Fluorene	mg/kg	0.05	MCERTS	-	1.1	-	0.96	-
Phenanthrene	mg/kg	0.05	MCERTS	-	6.1	-	5.4	-
Anthracene	mg/kg	0.05	MCERTS	-	2	-	0.97	-
Fluoranthene	mg/kg	0.05	MCERTS	-	10	-	6.8	-
Pyrene	mg/kg	0.05	MCERTS	-	10	-	5.6	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	6.4	-	3	-
Chrysene	mg/kg	0.05	MCERTS	-	4.3	-	2.1	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	6.1	-	3.1	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	1.9	-	1.1	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	4.8	-	2.1	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	2.3	-	1.2	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	0.62	-	0.26	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	2.7	-	1.4	-
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	61.3	-	35	-

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307648	2307649	2307650	2307651	2307652
Sample Reference				BH1	BH2	BH2	BH2	BH2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				5.50	0.50	2.00	4.50	11.50
Date Sampled				01/06/2022	01/06/2022	01/06/2022	01/06/2022	01/06/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	26	-	19	-
Boron (water soluble)	mg/kg	0.2	MCERTS	-	7.3	-	5	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	3.7	-	1	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	-	2	-	< 1.8	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	46	-	25	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	210	-	46	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	270	-	240	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	1.9	-	1	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	85	-	27	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	1100	-	500	-
Monoaromatics & Oxygenates								
Benzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
o-xylene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10) HS_1D_TOTAL	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
TPH-CWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
TPH-CWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
TPH-CWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
TPH-CWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	-	-	-	< 1.0	-
TPH-CWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	-	-	-	30	-
TPH-CWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	-	-	-	53	-
TPH-CWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	-	-	-	360	-
TPH-CWG - Aliphatic (EC5 - EC35) EH_CU+HS_1D_AL	mg/kg	10	MCERTS	-	-	-	440	-
TPH-CWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
TPH-CWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
TPH-CWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.001	MCERTS	-	-	-	< 0.001	-
TPH-CWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	-	-	-	< 1.0	-
TPH-CWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	-	-	-	23	-
TPH-CWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	-	-	-	100	-
TPH-CWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	-	-	-	400	-
TPH-CWG - Aromatic (EC5 - EC35) EH_CU+HS_1D_AR	mg/kg	10	MCERTS	-	-	-	520	-
TPH (C10 - C12) EH_CU_1D_TOTAL	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPH (C12 - C16) EH_CU_1D_TOTAL	mg/kg	4	MCERTS	-	< 4.0	-	-	-
TPH (C16 - C21) EH_CU_1D_TOTAL	mg/kg	1	MCERTS	-	47	-	-	-
TPH (C21 - C40) EH_CU_1D_TOTAL	mg/kg	10	MCERTS	-	270	-	-	-
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	-

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307648	2307649	2307650	2307651	2307652
Sample Reference				BH1	BH2	BH2	BH2	BH2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				5.50	0.50	2.00	4.50	11.50
Date Sampled				01/06/2022	01/06/2022	01/06/2022	01/06/2022	01/06/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,1-Dichloroethane	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	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Dibromomethane	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	µg/kg	1	NONE	-	-	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
Chlorobenzene	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	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
4-Chlorotoluene	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	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	µg/kg	1	MCERTS	-	-	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	-	< 1.0	-

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

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307653	2307654	2324131
Sample Reference				WS1	BH1	BH2
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.20	1.00	20.50
Date Sampled				01/06/2022	01/06/2022	01/06/2022
Time Taken				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
Moisture Content	%	0.01	NONE	4.1	13	18
Total mass of sample received	kg	0.001	NONE	0.8	0.3	0.6
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	MDB	MDB	N/A
General Inorganics						
pH - Automated	pH Units	N/A	MCERTS	8.3	7.9	8.4
Total Cyanide	mg/kg	1	MCERTS	1.2	1.3	-
Total Sulphate as SO4	mg/kg	50	MCERTS	530	710	1200
Total Sulphate as SO4	%	0.005	MCERTS	-	-	0.119
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.068	0.13	0.58
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	67.5	127	584
Total Sulphur	mg/kg	50	MCERTS	-	-	4800
Total Sulphur	%	0.005	MCERTS	-	-	0.48
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-	-	-
Total Phenols						
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	-
Speciated PAHs						
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	0.24	0.43	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.28	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	0.33	-
Phenanthrene	mg/kg	0.05	MCERTS	0.69	2.5	-
Anthracene	mg/kg	0.05	MCERTS	0.31	1.3	-
Fluoranthene	mg/kg	0.05	MCERTS	2.1	7.4	-
Pyrene	mg/kg	0.05	MCERTS	2.1	7.1	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1	3.7	-
Chrysene	mg/kg	0.05	MCERTS	1.2	3.2	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.7	4.5	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.67	1.7	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.2	3.1	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.85	1.6	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.2	0.35	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.2	2.2	-
Total PAH						
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	13.3	39.8	-

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307653	2307654	2324131
Sample Reference				WS1	BH1	BH2
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.20	1.00	20.50
Date Sampled				01/06/2022	01/06/2022	01/06/2022
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
Heavy Metals / Metalloids						
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	18	-
Boron (water soluble)	mg/kg	0.2	MCERTS	0.3	1.7	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.3	3.5	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	2.3	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	30	54	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	110	190	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	120	270	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	1.1	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	34	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	210	410	-
Monoaromatics & Oxygenates						
Benzene	µg/kg	1	MCERTS	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-
p & m-xylene	µg/kg	1	MCERTS	-	-	-
o-xylene	µg/kg	1	MCERTS	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-
Petroleum Hydrocarbons						
Petroleum Range Organics (C6 - C10) HS_1D_TOTAL	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-
TPH-CWG - Aliphatic >EC5 - EC6 HS_1D_AL	mg/kg	0.001	MCERTS	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8 HS_1D_AL	mg/kg	0.001	MCERTS	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10 HS_1D_AL	mg/kg	0.001	MCERTS	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12 EH_CU_1D_AL	mg/kg	1	MCERTS	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16 EH_CU_1D_AL	mg/kg	2	MCERTS	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21 EH_CU_1D_AL	mg/kg	8	MCERTS	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35 EH_CU_1D_AL	mg/kg	8	MCERTS	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35) EH_CU+HS_1D_AL	mg/kg	10	MCERTS	-	-	-
TPH-CWG - Aromatic >EC5 - EC7 HS_1D_AR	mg/kg	0.001	MCERTS	-	-	-
TPH-CWG - Aromatic >EC7 - EC8 HS_1D_AR	mg/kg	0.001	MCERTS	-	-	-
TPH-CWG - Aromatic >EC8 - EC10 HS_1D_AR	mg/kg	0.001	MCERTS	-	-	-
TPH-CWG - Aromatic >EC10 - EC12 EH_CU_1D_AR	mg/kg	1	MCERTS	-	-	-
TPH-CWG - Aromatic >EC12 - EC16 EH_CU_1D_AR	mg/kg	2	MCERTS	-	-	-
TPH-CWG - Aromatic >EC16 - EC21 EH_CU_1D_AR	mg/kg	10	MCERTS	-	-	-
TPH-CWG - Aromatic >EC21 - EC35 EH_CU_1D_AR	mg/kg	10	MCERTS	-	-	-
TPH-CWG - Aromatic (EC5 - EC35) EH_CU+HS_1D_AR	mg/kg	10	MCERTS	-	-	-
TPH (C10 - C12) EH_CU_1D_TOTAL	mg/kg	2	MCERTS	< 2.0	< 2.0	-
TPH (C12 - C16) EH_CU_1D_TOTAL	mg/kg	4	MCERTS	< 4.0	6.5	-
TPH (C16 - C21) EH_CU_1D_TOTAL	mg/kg	1	MCERTS	8.4	180	-
TPH (C21 - C40) EH_CU_1D_TOTAL	mg/kg	10	MCERTS	510	1600	-
VOCs						
Chloromethane	µg/kg	1	ISO 17025	-	-	-
Chloroethane	µg/kg	1	NONE	-	-	-
Bromomethane	µg/kg	1	ISO 17025	-	-	-
Vinyl Chloride	µg/kg	1	NONE	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-

Analytical Report Name: Beaches Yard
Project / Site name: Beaches Yard
Your Order No: P4398JJ2568.7

Lab Sample Number				2307653	2307654	2324131
Sample Reference				WS1	BH1	BH2
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				0.20	1.00	20.50
Date Sampled				01/06/2022	01/06/2022	01/06/2022
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**			
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-
Trichloromethane	µg/kg	1	MCERTS	-	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	-
Benzene	µg/kg	1	MCERTS	-	-	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	-
Trichloroethene	µg/kg	1	MCERTS	-	-	-
Dibromomethane	µg/kg	1	MCERTS	-	-	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	-
Toluene	µg/kg	1	MCERTS	-	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	-
Tetrachloroethene	µg/kg	1	NONE	-	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	-
Styrene	µg/kg	1	MCERTS	-	-	-
Tribromomethane	µg/kg	1	NONE	-	-	-
o-Xylene	µg/kg	1	MCERTS	-	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	-
Bromobenzene	µg/kg	1	MCERTS	-	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	-
Butylbenzene	µg/kg	1	MCERTS	-	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	-

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

Analytical Report Number: Beaches Yard
Project / Site name: New Data Centre, Beaches Yard, Horton Road, West Drayton
Your Order No: P4398JJ2568.7

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-PL 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
2307642	WS3	0.40	-	-	**Chrysotile- Woven Product (Belt)**	-	**-**
2307643	WS4	0.40	138	Loose Fibrous Debris	**Amosite**	0.001	**0.001**
2307649	BH2	0.50	-	-	**Amosite-Sheeting/Board Debris**	-	**-**

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

Analytical Report Name : Beaches Yard
Project / Site name: Beaches Yard

* 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 *
2307638	WS1	None Supplied	0.6	Brown clay and sand with vegetation and stones.
2307639	WS2	None Supplied	0.7	Brown clay and sand with gravel.
2307640	WS2	None Supplied	2.5	Brown loam with gravel and tar.
2307641	WS3	None Supplied	2.5	Brown sand with stones.
2307642	WS3	None Supplied	0.4	Brown clay and sand with gravel and stones.
2307643	WS4	None Supplied	0.4	Brown clay and sand with rubble and stones.
2307644	WS4	None Supplied	2	Brown sand with stones.
2307645	WS5	None Supplied	0.2	Brown loam and clay with gravel and vegetation.
2307646	BH1	None Supplied	0.5	Brown loam and clay with gravel and vegetation.
2307647	BH1	None Supplied	4.5	Black sludge with gravel and vegetation.
2307648	BH1	None Supplied	5.5	Black sludge with gravel and vegetation.
2307649	BH2	None Supplied	0.5	Brown loam with vegetation and stones.
2307650	BH2	None Supplied	2	Brown clay with gravel and vegetation.
2307651	BH2	None Supplied	4.5	Brown clay with gravel and vegetation.
2307652	BH2	None Supplied	11.5	Light brown clay.
2307653	WS1	None Supplied	0.2	Brown loam and clay with gravel and vegetation.
2307654	BH1	None Supplied	1	Brown loam and clay with gravel and vegetation.
2324131	BH2	None Supplied	20.5	Brown clay.

Analytical Report Name : Beaches Yard
Project / Site name: Beaches Yard

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-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
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	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
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
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	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
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-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 Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
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
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.	L009-PL	D	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
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
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS

Analytical Report Name : Beaches Yard
Project / Site name: Beaches Yard

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	D	MCERTS
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
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	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.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	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.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

Analytical Report Number : 22-63843

Project / Site name: New Data Centre, Beaches Yard, Horton Road, West Drayton

This deviation report indicates the sample and test deviations that apply to the samples submitted for analysis.Please

Sample ID	Other ID	Sample Type	Lab Sample Number	Sample Deviation	Test Name	Test Ref	Test Deviation
BH1	None Supplied	S	2307646	c	Total cyanide in soil	L080-PL	c
BH1	None Supplied	S	2307647	c	Total cyanide in soil	L080-PL	c
BH1	None Supplied	S	2307654	c	Total cyanide in soil	L080-PL	c
BH2	None Supplied	S	2307649	c	Total cyanide in soil	L080-PL	c
BH2	None Supplied	S	2307651	c	Total cyanide in soil	L080-PL	c
WS1	None Supplied	S	2307638	c	Total cyanide in soil	L080-PL	c
WS1	None Supplied	S	2307653	c	Total cyanide in soil	L080-PL	c
WS2	None Supplied	S	2307639	c	Total cyanide in soil	L080-PL	c
WS2	None Supplied	S	2307640	c	Total cyanide in soil	L080-PL	c
WS3	None Supplied	S	2307641	c	Total cyanide in soil	L080-PL	c
WS3	None Supplied	S	2307642	c	Total cyanide in soil	L080-PL	c
WS4	None Supplied	S	2307643	c	Total cyanide in soil	L080-PL	c
WS5	None Supplied	S	2307645	c	Total cyanide in soil	L080-PL	c

APPENDIX 4 – GEOTECHNICAL LABORATORY TEST RESULTS

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING
4041

Environmental Science

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-64461
		Date Sampled:	01/06/2022
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	21/06/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

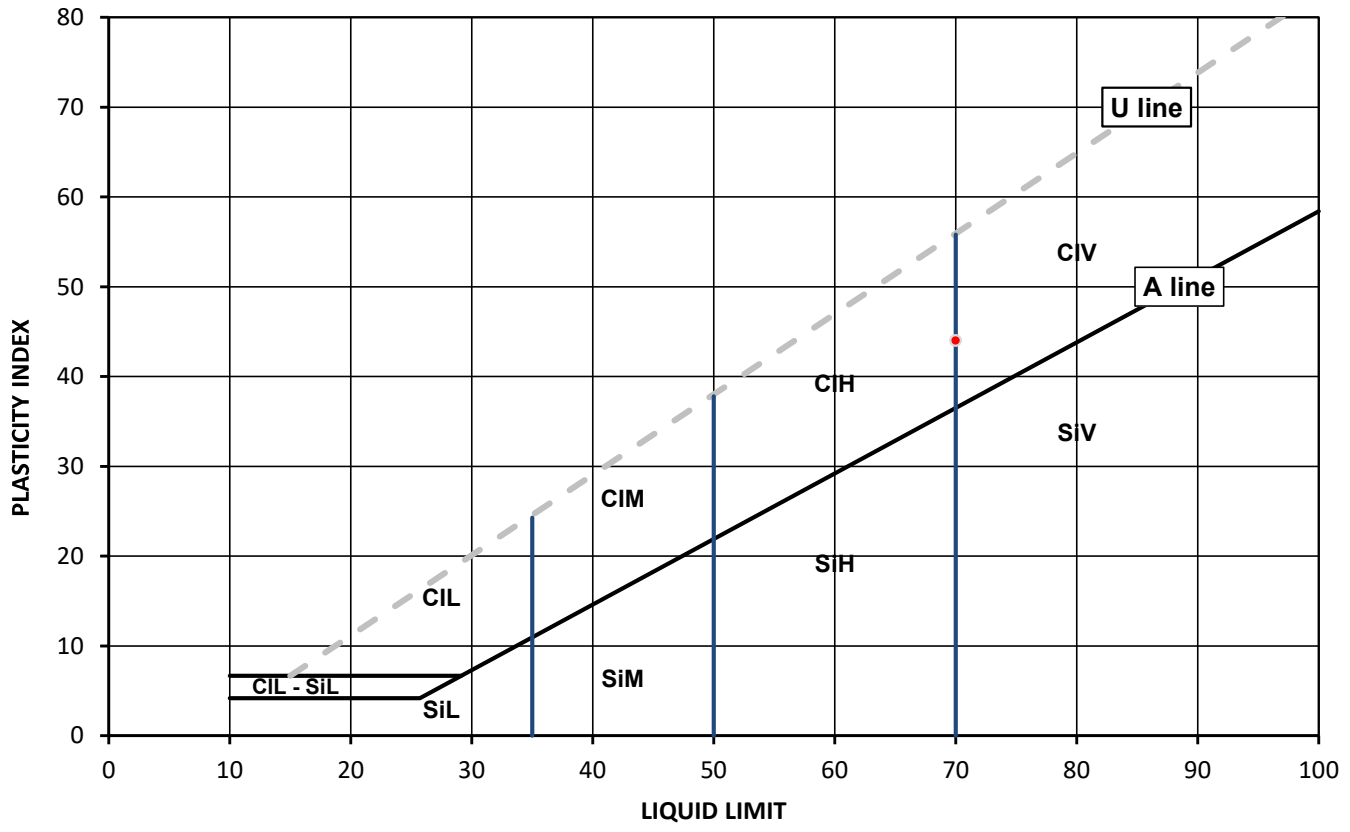
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2310937	Depth Top [m]:	10.00
Hole No.:	BH2	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brownish grey CLAY		

Sample Preparation: Tested in natural condition

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
25	70	26	44	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Katarzyna Koziel

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 236.12

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-64461
		Date Sampled:	Not Given
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	23/06/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

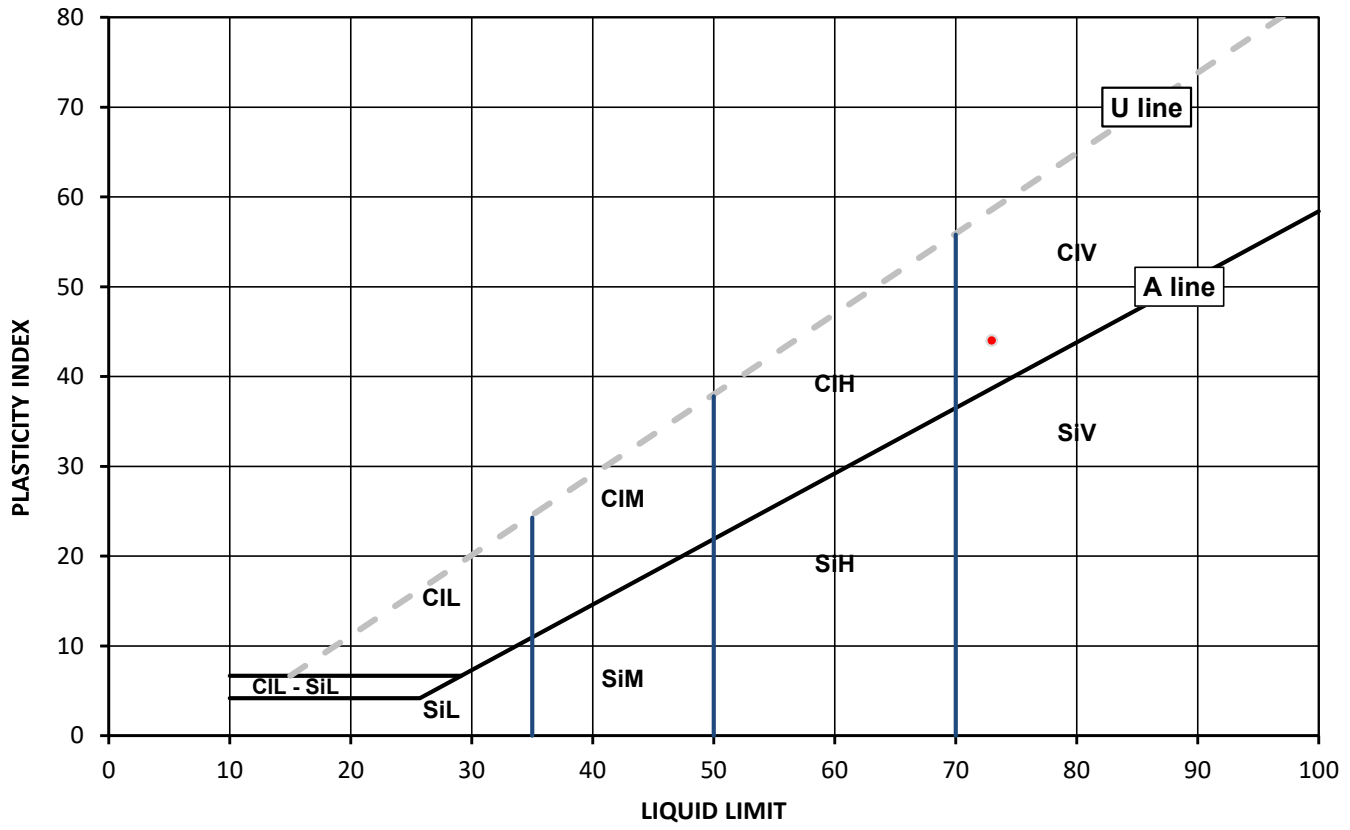
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2313687	Depth Top [m]:	20.00
Hole No.:	BH1	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Greyish brown CLAY		

Sample Preparation: Tested in natural condition

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
27	73	29	44	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Katarzyna Koziel

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 236.12

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-64461
		Date Sampled:	Not Given
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	21/06/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

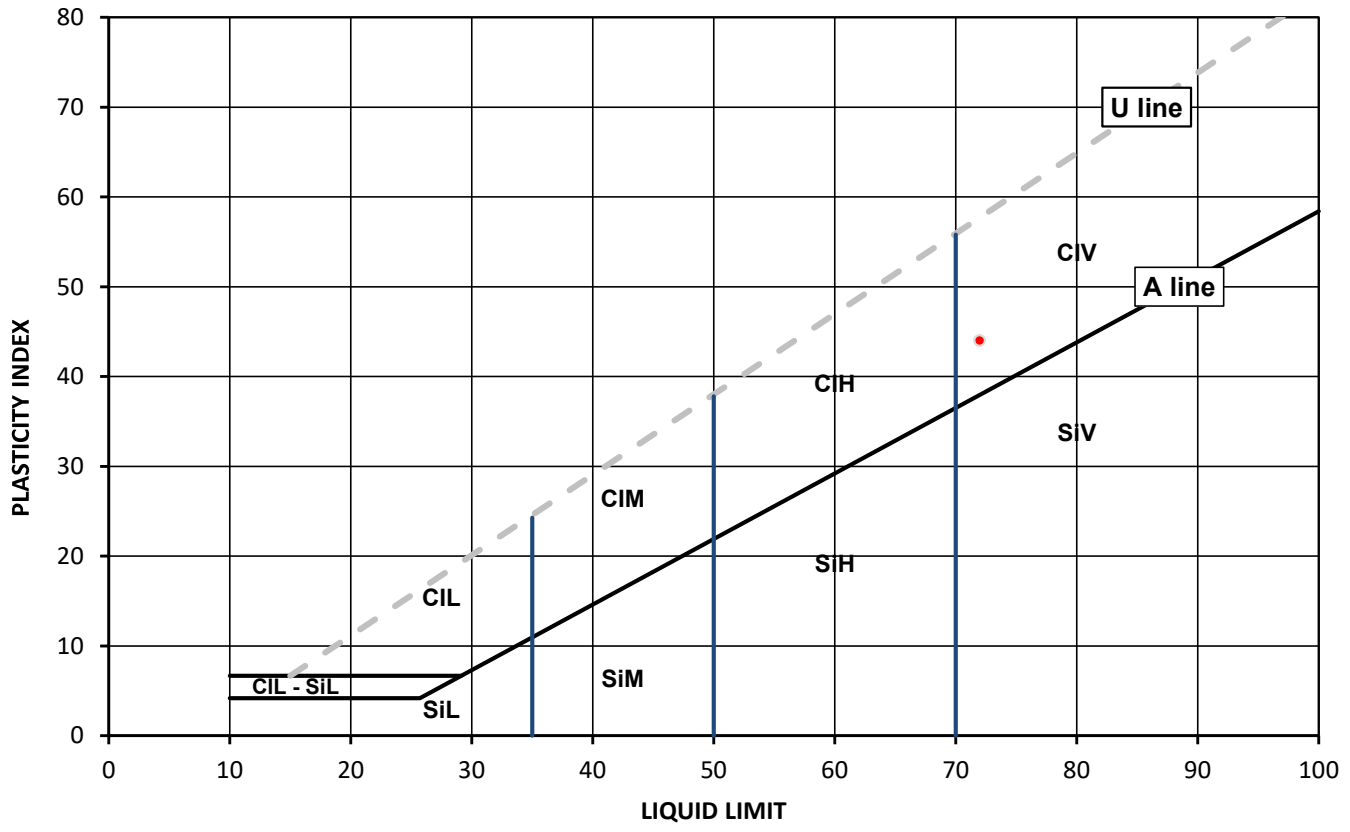
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2313688	Depth Top [m]:	8.00
Hole No.:	BH2	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown CLAY		

Sample Preparation: Tested in natural condition

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
28	72	28	44	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Katarzyna Koziel

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 236.12

TEST CERTIFICATE

DETERMINATION OF LIQUID AND PLASTIC LIMITS
Tested in Accordance with:BS 1377-2:1990:Clause 4.3 and 5

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING 4041

Environmental Science

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-64461
		Date Sampled:	Not Given
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	23/06/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

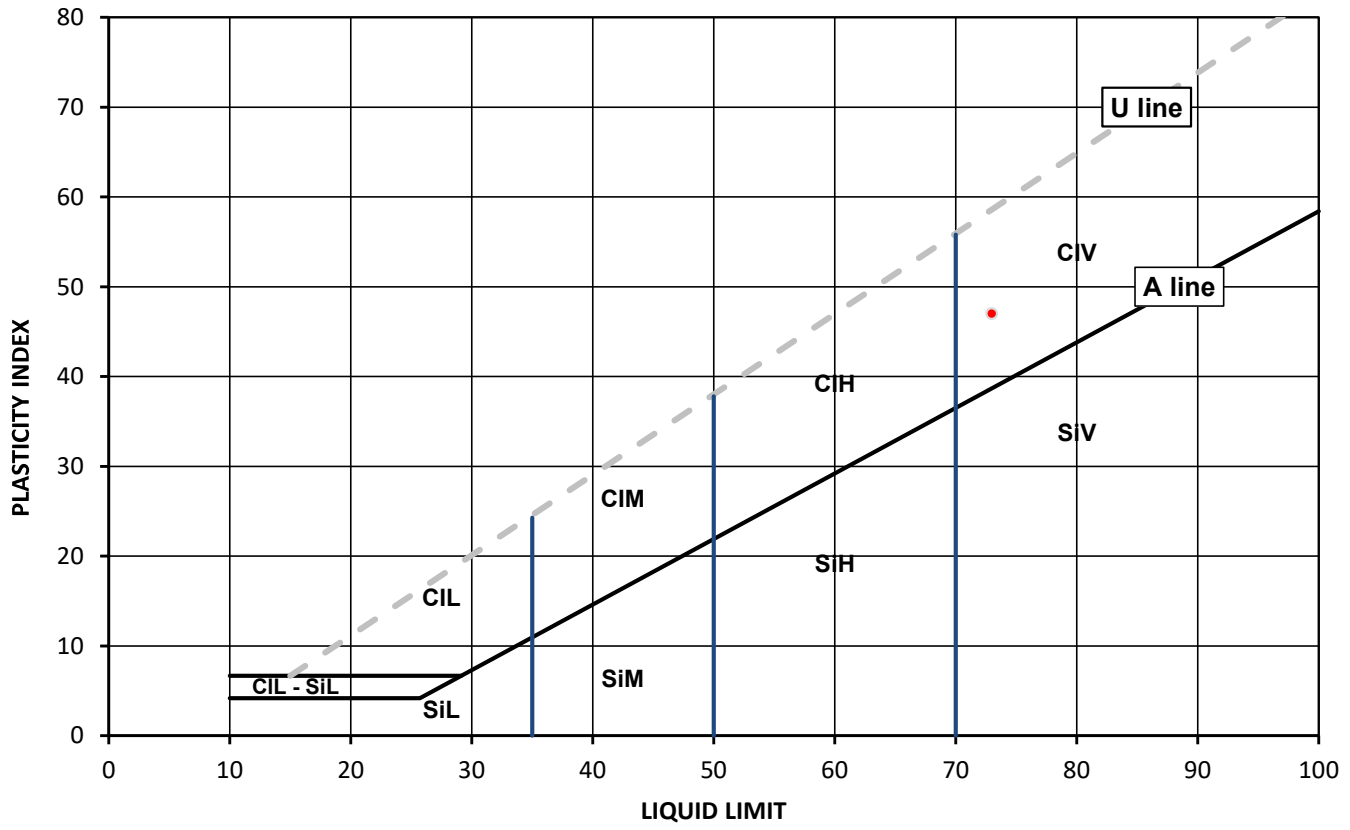
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2313689	Depth Top [m]:	17.00
Hole No.:	BH2	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Greyish brown CLAY		

Sample Preparation: Tested in natural condition

As Received Water Content [W] %	Liquid Limit [WL] %	Plastic Limit [Wp] %	Plasticity Index [Ip] %	% Passing 425µm BS Test Sieve
28	73	26	47	100



Legend, based on BS EN ISO 14688 2:2018 Geotechnical investigation and testing – Identification and classification of soil

		Plasticity		Liquid Limit
Cl	Clay	L	Low	below 35
Si	Silt	M	Medium	35 to 50
		H	High	50 to 70
		V	Very high	exceeding 70
		O	Organic	append to classification for organic material (eg ClHO)

Note: Water Content by BS 1377-2: 1990: Clause 3.2

Remarks:

Signed: Katarzyna Koziel

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 236.12

SUMMARY REPORT

SUMMARY OF CLASSIFICATION TEST RESULTS

Tested in Accordance with:

Water Content by BS 1377-2:1990: Clause 3.2; Atterberg by BS 1377-2: 1990: Clause 4.3 (4 Point Test), Clause 4.4 (1 Point Test) and 5; PD by BS 1377-2: 1990: Clause 8.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Jomas Associates Ltd

Client Address: Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD

Contact: Tom Elbourne

Site Address: Beaches Yard, Horton Road, West Drayton, UB7 8HX

Client Reference: JJ2568
Job Number: 22-64461
Date Sampled: Not Given
Date Received: 07/06/2022
Date Tested: 21/06 - 23/06/2022
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	Water Content BS 1377-2 [W]	Water Content BS EN ISO 17892-2 [W]	Atterberg				Density			Total Porosity#		
		Reference	Depth Top	Depth Base	Type					% Passing 425um	WL	Wp	Ip	bulk	dry	PD			
			m	m				%	%	%	%	%	%	Mg/m3	Mg/m3	Mg/m3	%		
2313686	BH1	Not Given	11.00	Not Given	B	Greyish brown slightly gravelly CLAY		26											
2313687	BH1	Not Given	20.00	Not Given	B	Greyish brown CLAY	Atterberg 4 Point	27		100	73	29	44						
2313688	BH2	Not Given	8.00	Not Given	B	Brown CLAY	Atterberg 4 Point	28		100	72	28	44						
2310937	BH2	Not Given	10.00	Not Given	D	Brownish grey CLAY	Atterberg 4 Point	25		100	70	26	44						
2313689	BH2	Not Given	17.00	Not Given	B	Greyish brown CLAY	Atterberg 4 Point	28		100	73	26	47						
2310936	WS5	Not Given	0.60	Not Given	D	Brown very sandy very clayey GRAVEL		20											

Note: # Non accredited; NP - Non plastic

Comments:

Signed:

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 238.14

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Jomas Associates Ltd

Client Address: Lakeside House, 1 Furzeground Way,
Stockley Park, UB11 1BD

Contact: Tom Elbourne

Site Address: Beaches Yard, Horton Road, West Drayton, UB7 8HX

Client Reference: JJ2568
Job Number: 22-64461
Date Sampled: Not Given
Date Received: 07/06/2022
Date Tested: 21/06 - 23/06/2022
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC	Sample preparation / Oven temperature at the time of testing			
		Reference	Depth Top m	Depth Base m	Type			%				
2313686	BH1	Not Given	11.00	Not Given	B	Greyish brown slightly gravelly CLAY		26	Sample was quartered, oven dried at 106.1 °C			
2313687	BH1	Not Given	20.00	Not Given	B	Greyish brown CLAY		27	Sample was quartered, oven dried at 107.7 °C			
2313688	BH2	Not Given	8.00	Not Given	B	Brown CLAY		28	Sample was quartered, oven dried at 106.1 °C			
2310937	BH2	Not Given	10.00	Not Given	D	Brownish grey CLAY		25	Sample was quartered, oven dried at 106.1 °C			
2313689	BH2	Not Given	17.00	Not Given	B	Greyish brown CLAY		28	Sample was quartered, oven dried at 106.2 °C			
2310936	WS5	Not Given	0.60	Not Given	D	Brown very sandy very clayey GRAVEL		20	Sample was quartered, oven dried at 106.1 °C			

Comments:

Signed:

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 099.16

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

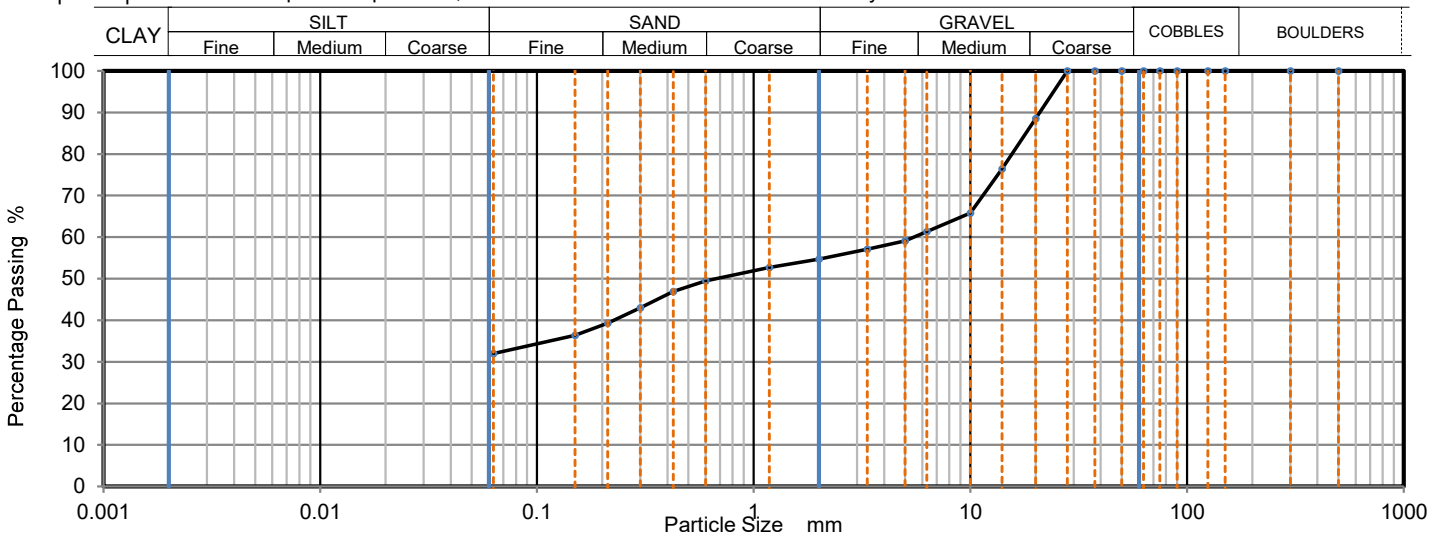
4041

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-64461
		Date Sampled:	01/06/2022
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	21/06/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2310936	Depth Top [m]:	0.60
Hole No.:	WS5	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brown very sandy very clayey GRAVEL		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	89		
14	76		
10	66		
6.3	61		
5	59		
3.35	57		
2	55		
1.18	53		
0.6	50		
0.425	47		
0.3	43		
0.212	39		
0.15	36		
0.063	33		

Sample Proportions	% dry mass
Very coarse	0
Gravel	45
Sand	22
Fines <0.063mm	33

Grading Analysis		
D100	mm	28
D60	mm	5.51
D30	mm	
D10	mm	
Uniformity Coefficient		> 87
Curvature Coefficient		

Uniformity Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed: Katarzyna Koziel

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 100.21

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

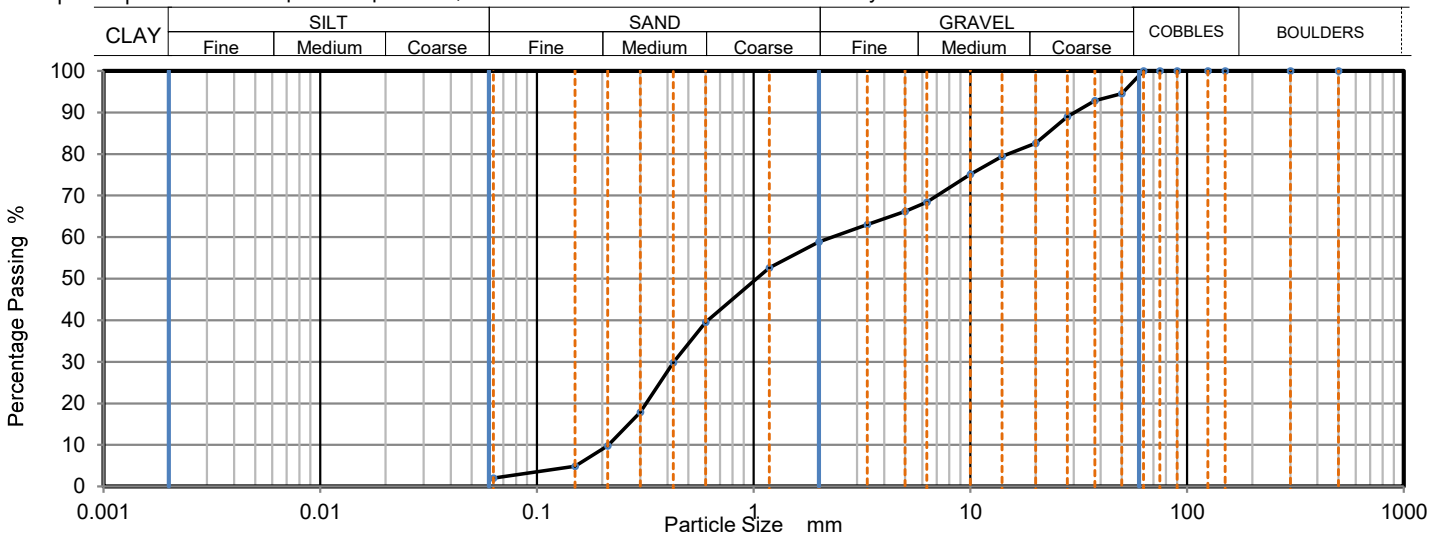
4041

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-64461
		Date Sampled:	Not Given
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	23/06/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2313690	Depth Top [m]:	6.50
Hole No.:	BH2	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brownish grey slightly clayey very gravelly SAND		
Sample Preparation:	Sample was quartered, oven dried at 106.1 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	95		
37.5	93		
28	89		
20	83		
14	79		
10	75		
6.3	68		
5	66		
3.35	63		
2	59		
1.18	53		
0.6	40		
0.425	30		
0.3	18		
0.212	10		
0.15	5		
0.063	2		

Sample Proportions	% dry mass
Very coarse	0
Gravel	41
Sand	57
Fines <0.063mm	2

Grading Analysis		
D100	mm	63
D60	mm	2.29
D30	mm	0.429
D10	mm	0.214
Uniformity Coefficient		11
Curvature Coefficient		0.38

Uniformity Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed:

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 100.21

TEST CERTIFICATE

DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

Tested in Accordance with: BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING 4041

Environmental Science

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-64461
		Date Sampled:	Not Given
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	23/06/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

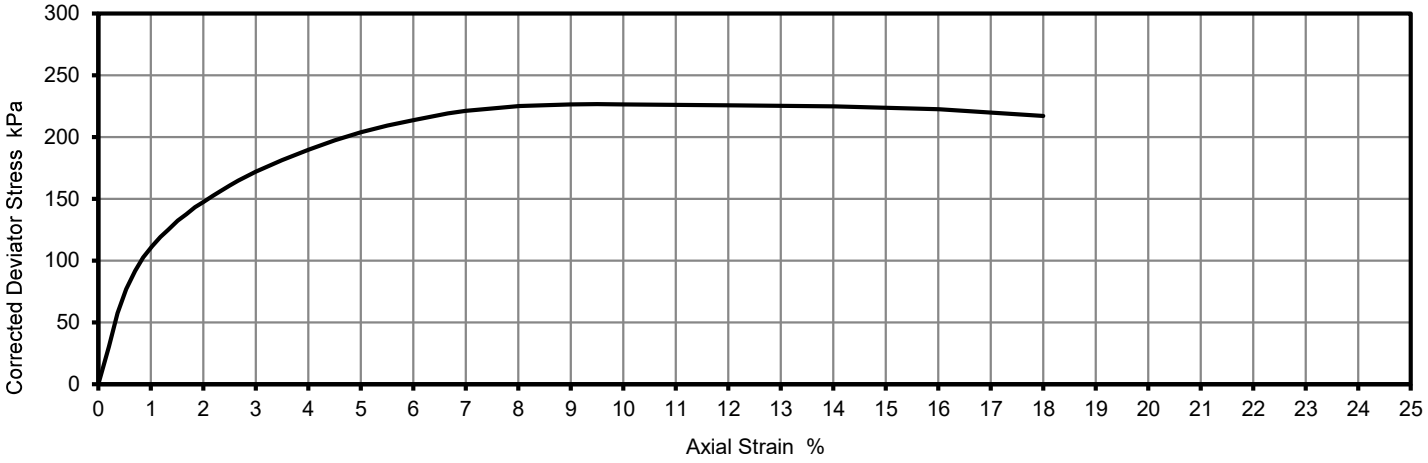
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

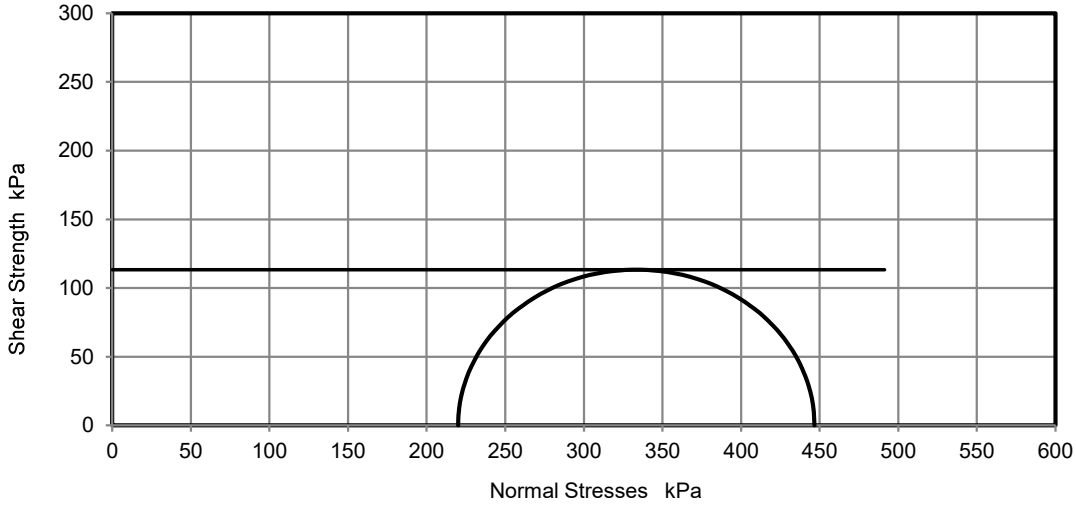
Laboratory Reference:	2313686	Depth Top [m]:	11.00
Hole No.:	BH1	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Greyish brown slightly gravelly CLAY		
Sample Preparation:	Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.		

Test Number	1		Rate of Strain	1.98	%/min
Length	201.76	mm	Cell Pressure	220	kPa
Diameter	101.80	mm	Axial Strain at failure	9.5	%
Bulk Density	2.01	Mg/m3	Deviator Stress, (σ1 - σ3)f	227	kPa
Moisture Content	26	%	Undrained Shear Strength, cu	113	kPa ½(σ1 - σ3)f
Dry Density	1.60	Mg/m3	Mode of Failure	Compound	
Membrane Correction	0.57	kPa	Membrane thickness	0.27	mm

Deviator Stress v Axial Strain



Mohr Circles



Position within sample

Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed: Katarzyna Koziel

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 184.12

TEST CERTIFICATE

DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

Tested in Accordance with: BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING 4041

Environmental Science

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-64461
		Date Sampled:	Not Given
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	23/06/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

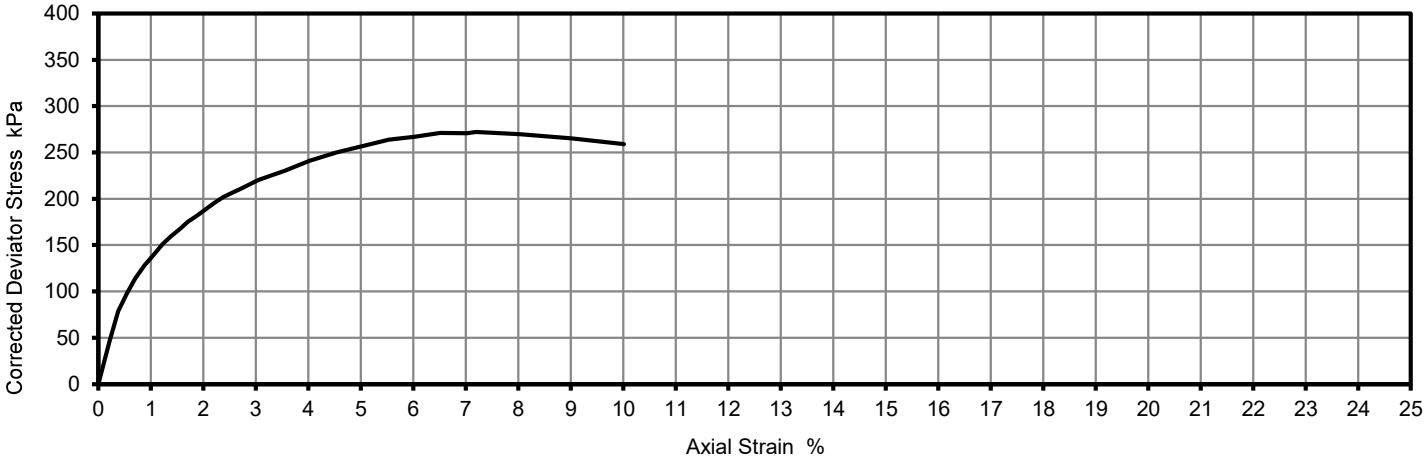
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

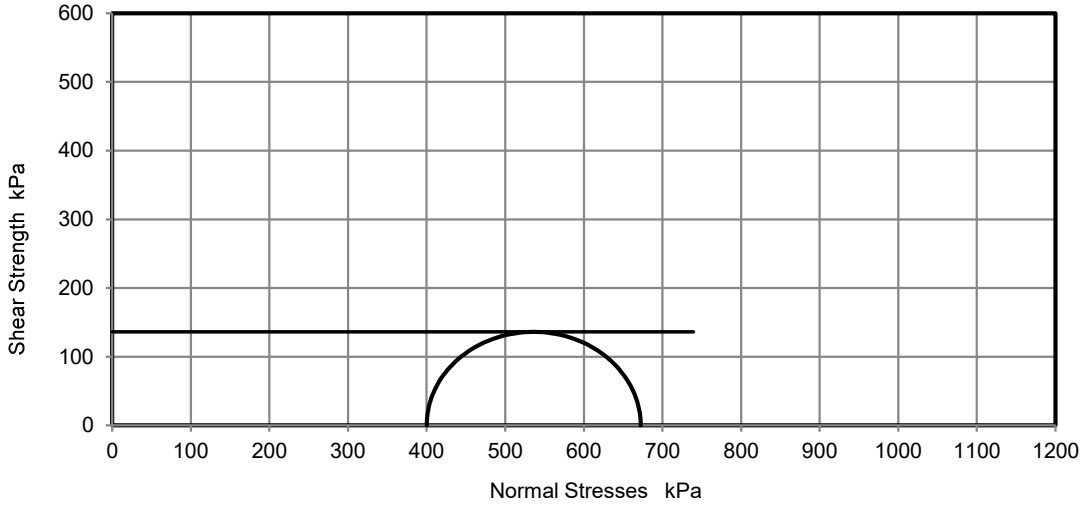
Laboratory Reference:	2313687	Depth Top [m]:	20.00
Hole No.:	BH1	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Greyish brown CLAY		
Sample Preparation:	Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.		

Test Number	1		Rate of Strain	2.00	%/min
Length	98.11	mm	Cell Pressure	400	kPa
Diameter	49.84	mm	Axial Strain at failure	7.2	%
Bulk Density	2.00	Mg/m3	Deviator Stress, (σ1 - σ3)f	272	kPa
Moisture Content	27	%	Undrained Shear Strength, cu	136	kPa ½(σ1 - σ3)f
Dry Density	1.57	Mg/m3	Mode of Failure	Brittle	
Membrane Correction	0.82	kPa	Membrane thickness	0.23	mm

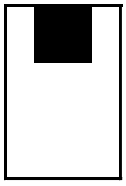
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed: Katarzyna Koziel

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 184.12

TEST CERTIFICATE

DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

Tested in Accordance with: BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING 4041

Environmental Science

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-64461
		Date Sampled:	Not Given
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	21/06/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

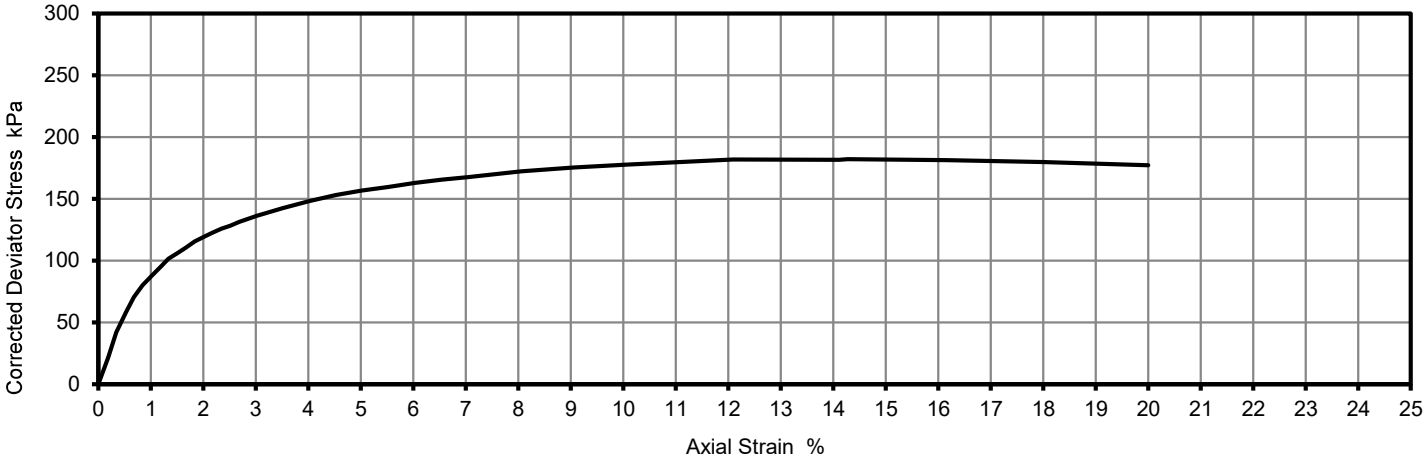
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

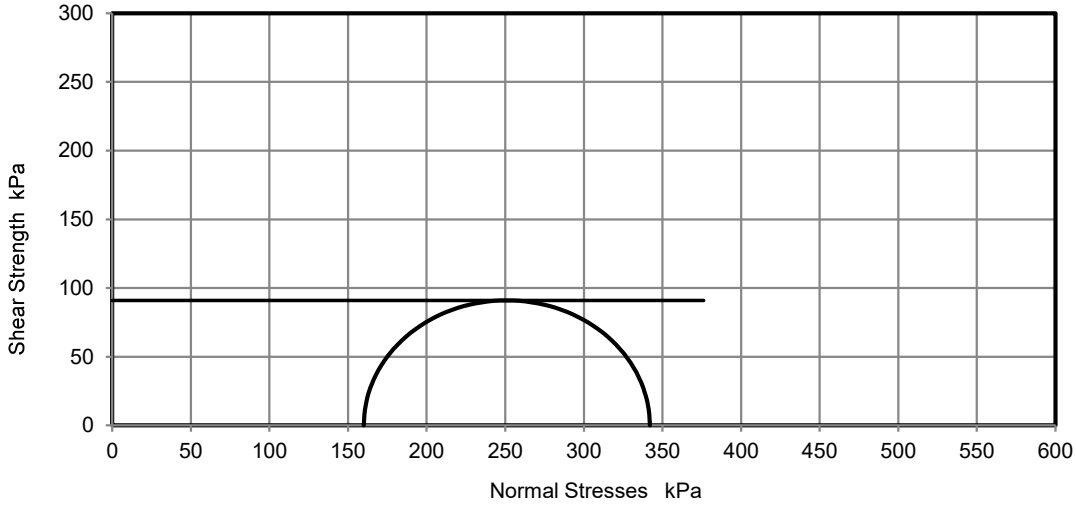
Laboratory Reference:	2313688	Depth Top [m]:	8.00
Hole No.:	BH2	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Brown CLAY		
Sample Preparation:	Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.		

Test Number	1		Rate of Strain	2.00	%/min	
Length	139.86	mm	Cell Pressure	160	kPa	
Diameter	69.75	mm	Axial Strain at failure	14.3	%	
Bulk Density	1.93	Mg/m3	Deviator Stress, (σ1 - σ3)f	182	kPa	
Moisture Content	28	%	Undrained Shear Strength, cu	91	kPa	½(σ1 - σ3)f
Dry Density	1.50	Mg/m3	Mode of Failure	Compound		
Membrane Correction	1.09	kPa	Membrane thickness	0.26	mm	

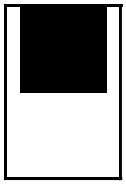
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed:

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 184.12

TEST CERTIFICATE

DETERMINATION OF THE UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

Tested in Accordance with: BS 1377-7: 1990: Clause 8

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

UKAS TESTING 4041

Environmental Science

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-64461
		Date Sampled:	Not Given
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	23/06/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

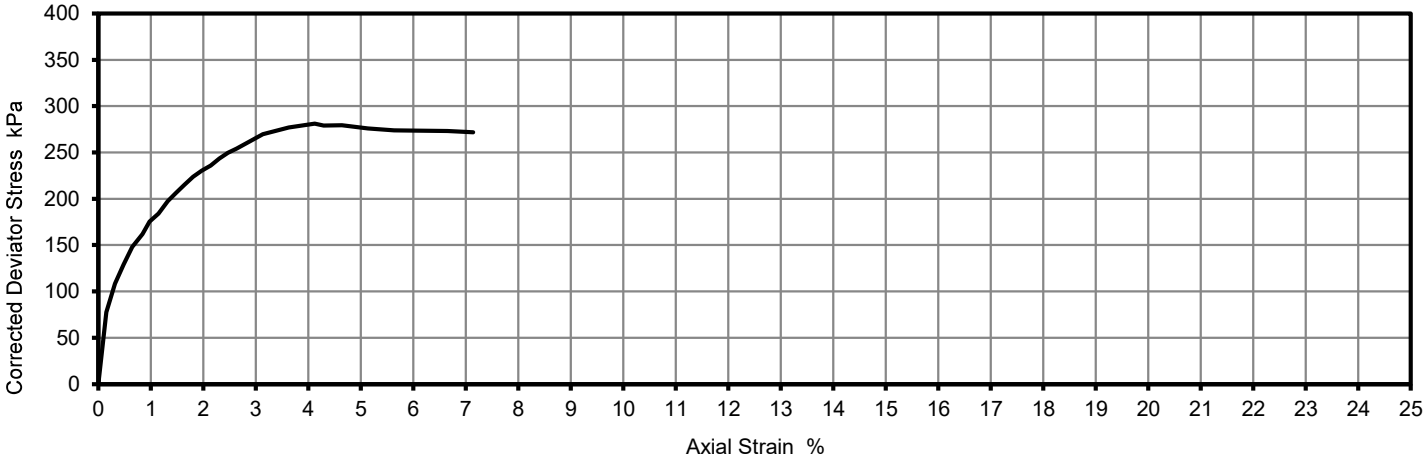
Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

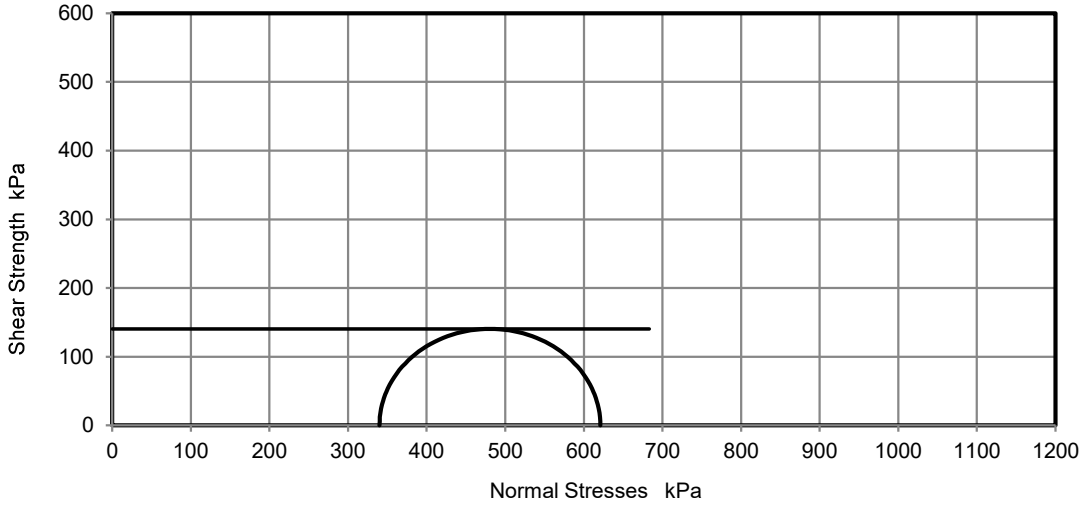
Laboratory Reference:	2313689	Depth Top [m]:	17.00
Hole No.:	BH2	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	B
Sample Description:	Greyish brown CLAY		
Sample Preparation:	Sample prepared in accordance with BS 1377-1:2016 Clause 9.1.1.		

Test Number	1		Rate of Strain	2.00	%/min	
Length	97.61	mm	Cell Pressure	340	kPa	
Diameter	49.86	mm	Axial Strain at failure	4.1	%	
Bulk Density	1.99	Mg/m3	Deviator Stress, (σ1 - σ3)f	281	kPa	
Moisture Content	28	%	Undrained Shear Strength, cu	140	kPa	½(σ1 - σ3)f
Dry Density	1.56	Mg/m3	Mode of Failure	Compound		
Membrane Correction	0.47	kPa	Membrane thickness	0.21	mm	

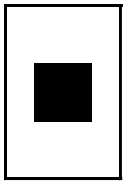
Deviator Stress v Axial Strain



Mohr Circles



Position within sample



Note: Deviator stress corrected for area change and membrane effects. Mohr circles and their interpretation is not covered by BS1377. This is provided for information only.

Remarks:

Signed: Katarzyna Koziel

Katarzyna Koziel
Technical Reviewer
for and on behalf of i2 Analytical Ltd

Date Reported: 27/06/2022

GF 184.12

SUMMARY REPORT

DETERMINATION OF WATER CONTENT

Tested in Accordance with: BS 1377-2: 1990: Clause 3.2

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

4041

Client: Jomas Associates Ltd

Client Address: Lakeside House, 1 Furzeground Way,
Stockley Park, UB11 1BD

Contact: Tom Elbourne

Site Address: Beaches Yard, Horton Road, West Drayton, UB7 8HX

Client Reference: JJ2568
Job Number: 22-66642
Date Sampled: 01/06/2022
Date Received: 07/06/2022
Date Tested: 02/07/2022
Sampled By: Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test results

Laboratory Reference	Hole No.	Sample				Description	Remarks	WC	Sample preparation / Oven temperature at the time of testing			
		Reference	Depth Top m	Depth Base m	Type			%				
2323829	WS3	Not Given	1.30	Not Given	D	Brownish grey sandy clayey GRAVEL		17	Sample was quartered, oven dried at 106.2 °C			

Comments:

Opinions and interpretations expressed herein are outside of the scope of the UKAS Accreditation. This report may not be reproduced other than in full without the prior written approval of the issuing laboratory. The results included within the report relate only to the sample(s) submitted for testing.

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 07/07/2022

TEST CERTIFICATE

DETERMINATION OF PARTICLE SIZE DISTRIBUTION

Tested in Accordance with: BS 1377-2: 1990

i2 Analytical Ltd
Unit 8 Harrowden Road
Brackmills Industrial Estate
Northampton NN4 7EB

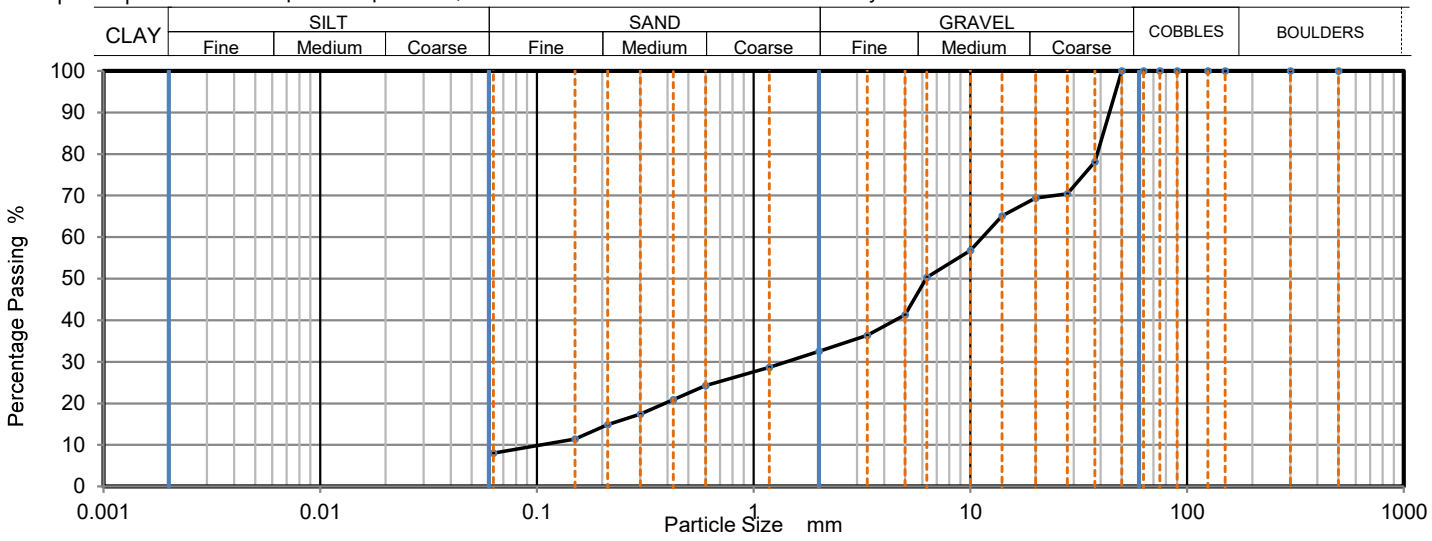
4041

Client:	Jomas Associates Ltd	Client Reference:	JJ2568
Client Address:	Lakeside House, 1 Furzeground Way, Stockley Park, UB11 1BD	Job Number:	22-66642
		Date Sampled:	01/06/2022
		Date Received:	07/06/2022
Contact:	Tom Elbourne	Date Tested:	02/07/2022
Site Address:	Beaches Yard, Horton Road, West Drayton	Sampled By:	Not Given

Testing carried out at i2 Analytical Limited, ul. Pionierow 39, 41-711 Ruda Slaska, Poland

Test Results:

Laboratory Reference:	2323829	Depth Top [m]:	1.30
Hole No.:	WS3	Depth Base [m]:	Not Given
Sample Reference:	Not Given	Sample Type:	D
Sample Description:	Brownish grey sandy clayey GRAVEL		
Sample Preparation:	Sample was quartered, oven dried at 106.2 °C and broken down by hand.		



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
500	100		
300	100		
150	100		
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	78		
28	70		
20	69		
14	65		
10	57		
6.3	50		
5	41		
3.35	36		
2	33		
1.18	29		
0.6	24		
0.425	21		
0.3	17		
0.212	15		
0.15	11		
0.063	9		

Sample Proportions	% dry mass
Very coarse	0
Gravel	68
Sand	24
Fines <0.063mm	9

Grading Analysis		
D100	mm	50
D60	mm	11.4
D30	mm	1.41
D10	mm	0.0935
Uniformity Coefficient		120
Curvature Coefficient		1.9

Uniformity Coefficient calculated in accordance with BS EN ISO 14688-2:2018

Note: Tested in Accordance with BS1377:Part 2:1990, clause 9.2

Remarks:

Signed: Dudzińska Anna

Anna Dudzinska
PL Deputy Head of Reporting Team
for and on behalf of i2 Analytical Ltd

Date Reported: 07/07/2022

GF 100.21

APPENDIX 5 – SOIL GAS MONITORING RESULTS

GAS AND GROUNDWATER MONITORING BOREHOLE RECORD SHEET

Site: Horton Road	**Operative(s):** JAR	**Date:** 09/06/2022	**Time:** 11:50	**Round: 1**	**Page:** 1

MONITORING EQUIPMENT

Instrument Type	**Instrument Make**	**Serial No.**	**Date Last Calibrated**
Analox	GA5000	G505801	01/10/2021
PID	Phocheck tiger	T-106448	01/03/2021
Dip Meter	GeoTech		

MONITORING CONDITIONS

Weather Conditions: Sunny with Cloud	**Ground Conditions: Dry**	**Temperature**: 17°C
Barometric Pressure (mbar): 1012	**Barometric Pressure Trend (24hr):** Falling	**Ambient Concentration:** 0.2 %CH_4,0.2 %CO_2, 21.0 %O_2

MONITORING RESULTS

Monitoring Point Location	Flow		Atmospheric Pressure (mbar)	CH_4 %	CH_4 % LEL	CO_2 %	O_2 %	VOC (ppm)		H_2S (ppm)	CO (ppm)	Depth to product (mbgl)	Depth to water (mbgl)	Depth to base of well (mbgl)
	Peak	Steady						Peak	Steady					
BH1	0.1	0.1	1013	12.5	-	19.1	0.2	6.8	5.2	0	1	-	2.82	5.32
BH2	0.0	0.0	1013	0.2	-	6.7	10.1	12.0	11.7	0	0	-	2.76	4.90
WS4	0.1	0.1	1012	13.1	-	11.6	0.1	14.1	10.6	1	0	-	1.90	2.9

GAS AND GROUNDWATER MONITORING BOREHOLE RECORD SHEET

Site: Horton Road	**Operative(s):** HAH	**Date:** 17/06/2022	**Time:** 14:03	**Round:** 2	**Page:** 1

MONITORING EQUIPMENT

Instrument Type	**Instrument Make**	**Serial No.**	**Date Last Calibrated**
Analox	GA5000	G505801	01/10/2021
PID	Phocheck tiger	T-106448	01/03/2021
Dip Meter	GeoTech		

MONITORING CONDITIONS

Weather Conditions: Sunny	**Ground Conditions:** Dry	**Temperature**: 32°C
Barometric Pressure (mbar): 1014	**Barometric Pressure Trend (24hr):** Falling	**Ambient Concentration:** 0.3% CH_4, 0.1% CO_2, 20.8% O_2

MONITORING RESULTS

Monitoring Point Location	Flow		Atmospheric Pressure (mbar)	CH_4 %	CH_4 % LEL	CO_2 %	O_2 %	VOC (ppm)		H_2S (ppm)	CO (ppm)	Depth to product (mbgl)	Depth to water (mbgl)	Depth to base of well (mbgl)
	Peak	Steady						Peak	Steady					
BH1	0.0	0.0	1014	2.2	-	3.0	16.5	7.3	7.3	1	1	-	1.07	5.33
BH2	0.0	0.0	1014	0.7	-	13.6	2.8	8.3	7.3	0	2	-	2.11	4.77
WS4	-0.1	-0.1	1015	13.1	-	15.0	5.3	4.7	4.7	2	1	-	1.94	3.04

GAS AND GROUNDWATER MONITORING BOREHOLE RECORD SHEET

Site: Horton Road	**Operative(s):** JAR	**Date:** 23/06/2022	**Time:** 16:00	**Round: 3**	**Page:** 1

MONITORING EQUIPMENT

Instrument Type	**Instrument Make**	**Serial No.**	**Date Last Calibrated**
Analox	GA5000	G505801	01/10/2021
PID	Phocheck tiger	T-106448	01/03/2021
Dip Meter	GeoTech		

MONITORING CONDITIONS

Weather Conditions: Sunny with Cloud	**Ground Conditions: Dry**	**Temperature**: 23 °C
Barometric Pressure (mbar): 1008	**Barometric Pressure Trend (24hr):** Falling	**Ambient Concentration:** 0.3 %CH_4, 0.1 %CO_2,20.9 %O_2

MONITORING RESULTS

Monitoring Point Location	Flow		Atmospheric Pressure (mbar)	CH_4 %	CH_4 % LEL	CO_2 %	O_2 %	VOC (ppm)		H_2S (ppm)	CO (ppm)	Depth to product (mbgl)	Depth to water (mbgl)	Depth to base of well (mbgl)
	Peak	Steady						Peak	Steady					
BH1	0.0	0.0	1008	10.7	-	17.4	1.6	-	-	1	2	-	2.82	5.25
BH2	0.1	0.1	1009	0.3	-	13.0	4.9	5.7	3.8	1	1	-	2.10	4.8
WS4	0.0	0.0	1008	30.8	-	12.0	0.2	4.6	4.4	1	0	-	1.95	3.00

GAS AND GROUNDWATER MONITORING BOREHOLE RECORD SHEET

Site: Horton Road	**Operative(s):** JAR	**Date:** 28/06/2022	**Time:** 10:00	**Round: 4**	**Page:** 1

MONITORING EQUIPMENT

Instrument Type	**Instrument Make**	**Serial No.**	**Date Last Calibrated**
Analox	GA5000	G505801	01/10/2021
PID	Phocheck tiger	T-106448	01/03/2021
Dip Meter	GeoTech		

MONITORING CONDITIONS

Weather Conditions: Sunny	**Ground Conditions: Dry**	**Temperature**: 20 °C
Barometric Pressure (mbar): 1014	**Barometric Pressure Trend (24hr):** Rising	**Ambient Concentration:** 0.2 %CH_4, 0.2 %CO_2, 21 %O_2

MONITORING RESULTS

Monitoring Point Location	Flow		Atmospheric Pressure (mbar)	CH_4 %	CH_4 % LEL	CO_2 %	O_2 %	VOC (ppm)		H_2S (ppm)	CO (ppm)	Depth to product (mbgl)	Depth to water (mbgl)	Depth to base of well (mbgl)
	Peak	Steady						Peak	Steady					
BH1	0.0	0.0	1015	12.1	-	20.2	0.2	5.2	4.9	0	0	-	2.76	5.27
BH2	0.1	0.1	1015	0.4	-	14.7	4.3	6.5	4.0	1	0	-	2.05	4.78
WS4	0.2	0.2	1014	18.4	-	14.4	0.2	4.5	4.2	0	0	-	1.98	2.99

LOW FLOW GROUNDWATER MONITORING BOREHOLE RECORD SHEET					
Site: Horton Road	**Operative(s):** JAR	**Date:** 28/06/2022	**Time:** 10:00	**Round:** 1	**Page:** 1

MONITORING EQUIPMENT			
Instrument Type	**Instrument Make**	**Serial No.**	**Date Last Calibrated**
SmarTROLL MP	In-Situ	674243	18/02/2022
Dip Meter	In-Situ		

MONITORING CONDITIONS		
Weather Conditions: Sunny	**Ground Conditions: Dry**	**Temperature:** 20 °C

Hole ID	Temperature (°C)	Specific Conductivity (µS/cm)	pH	(ORP) Oxidation-Reduction Potential (mV)	(RDO) Rugged Dissolved Oxygen Concentration (mg/L)	Depth to product – NB do not sample if present	Water Level (Start of testing)	Water Level (End of testing)	Depth to base of well (m)	Sample depth (tube intake depth) – (m)	Comments
BH1	14.49	2435.5	6.25	76.3	1.13	-	2.76	2.70	5.27	3.25	Clear water Stable at 10 minutes
BH2	14.49	2904.3	6.51	87.4	1.93	-	2.05	2.05	4.78	2.55	Clear water Stable at 24 minutes
WS4	16.89	1666.7	6.3	88.2	1.66	-	1.98	1.95	2.99	2.45	Clear water Stable at 20 minutes

APPENDIX 6 – CBR TEST RESULTS

CBR Calculation

Jomas Job: Horton Road
Jomas Job No.: P4398J2568

Test Location: CBR1
Date of Test: 31/05/2022

Calculating Engineer: TE
Approved by: DG

Date: 01/07/2022
Date: 18/07/2022

Depth (mm)	Nr Blow	Cumulative blows
50		
100	15	15
150		
200	12	27
250		
300	9	36
350		
400	7	43
450		
500	5	48
550		
600	4	52
650		
700	3	55
750		
800	2	57
850		
900	2	59
950		
1000	2	61

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%)		E (MPa)
				IAN 73/06	TRL 587	
CBR1-Test 1	100	300	9.5	27.9	27.1	148.15
CBR1-Test 2	300	500	16.7	15.4	15.7	101.28
CBR1-Test 3	500	700	28.6	8.7	9.2	70.28
CBR1-Test 4	700	1000	50.0	4.8	5.3	48.03

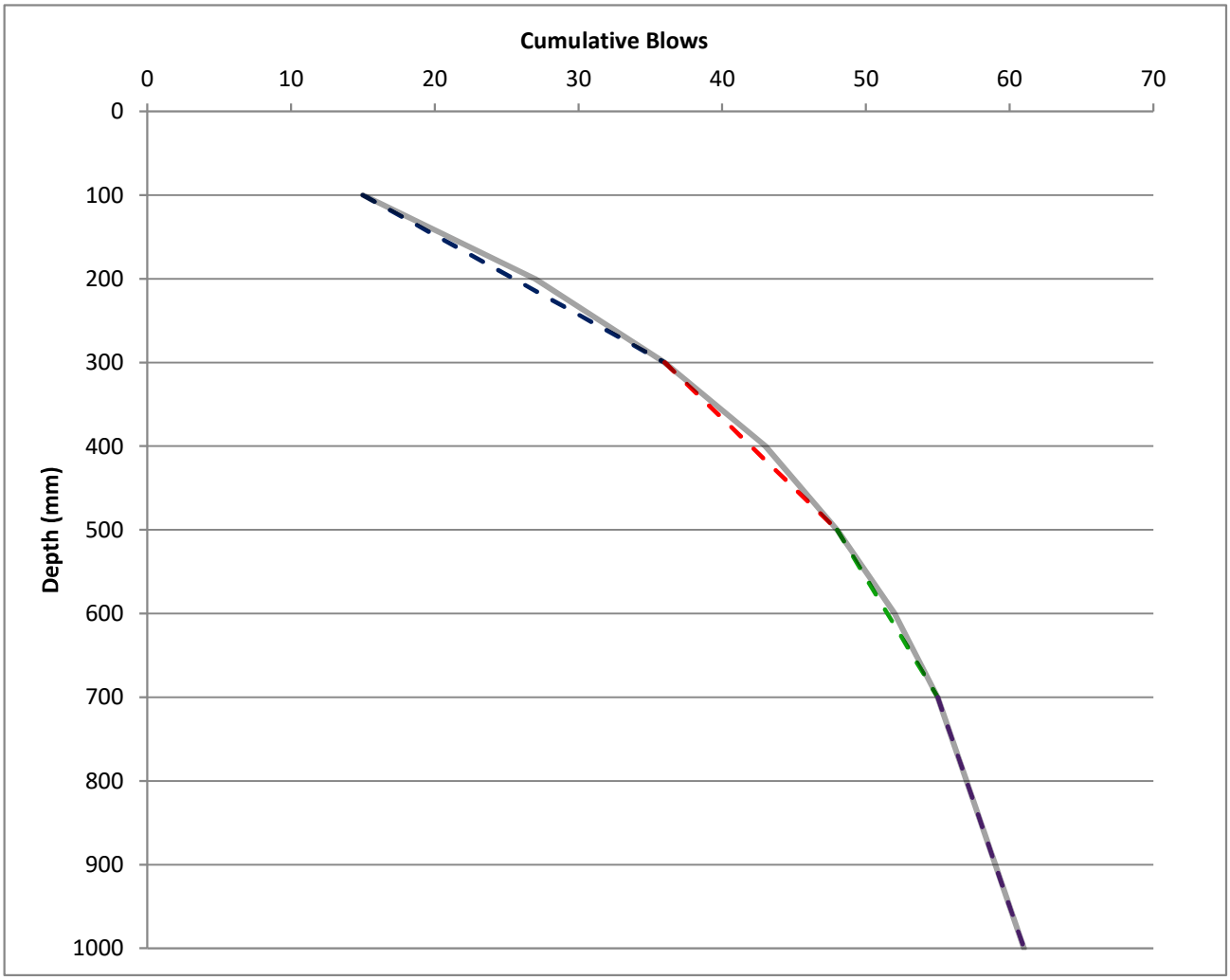
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodoloies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



CBR Calculation

Jomas Job: Horton Road
Jomas Job No.: P4398J2568

Test Location: CBR2
Date of Test: 31/05/2022

Calculating Engineer: TE
Approved by: DG

Date: 01/07/2022
Date: 18/07/2022

Depth (mm)	Nr Blow	Cumulative blows
50		
100	14	14
150		
200	12	26
250		
300	9	35
350		
400	8	43
450		
500	5	48
550		
600	4	52
650		
700	4	56
750		
800	1	57
850		
900	1	58
950		
1000	2	60

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%)		E (MPa)
				IAN 73/06	TRL 587	
CBR2-Test 1	100	200	8.3	32.1	30.9	162.06
CBR2-Test 2	200	400	11.8	22.3	22.1	128.36
CBR2-Test 3	400	700	23.1	10.9	11.4	81.18
CBR2-Test 4	700	1000	75.0	3.1	3.6	36.31

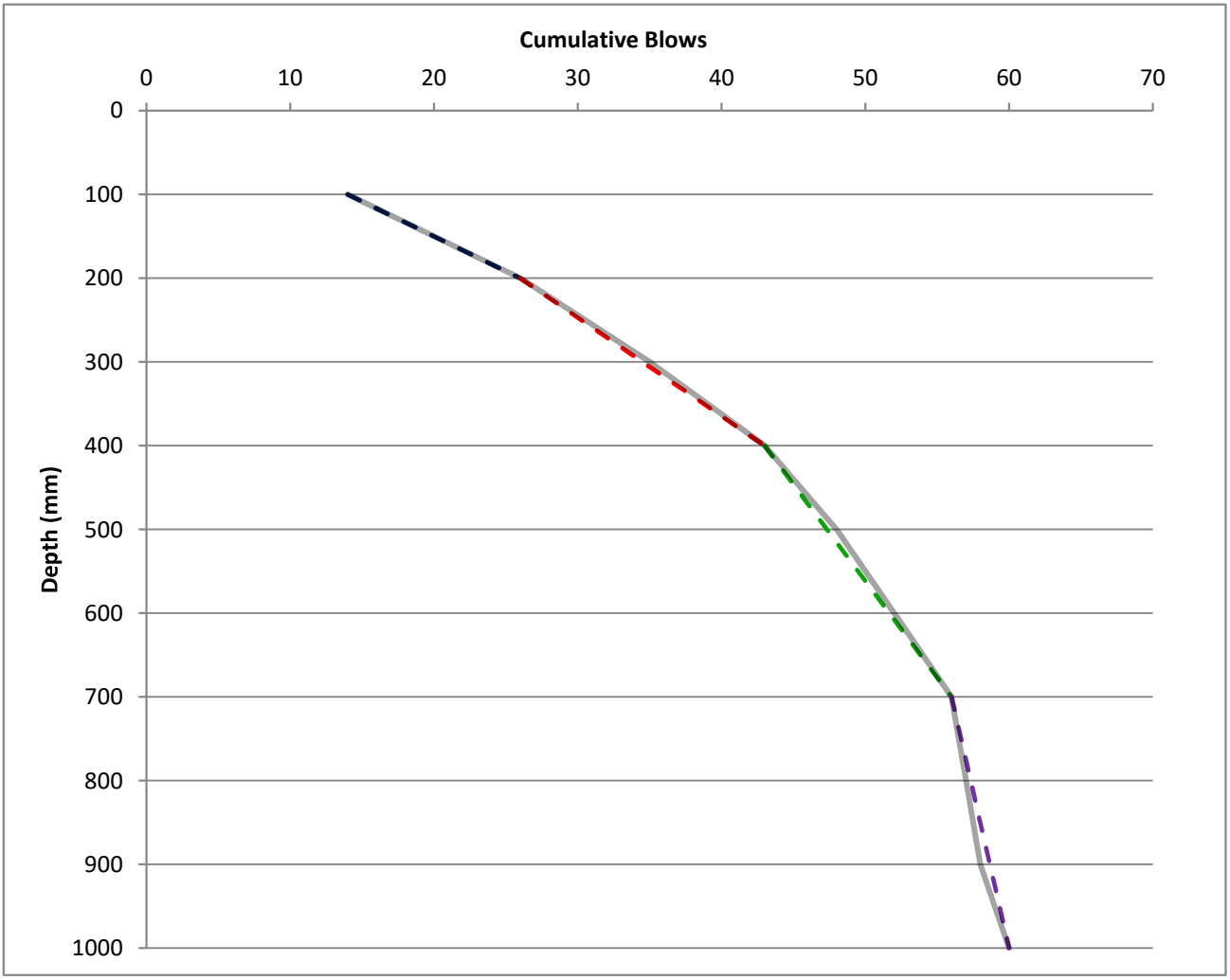
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodoloies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



CBR Calculation

Jomas Job: Horton Road
Jomas Job No.: P4398J2568

Test Location: CBR3
Date of Test: 31/05/2022

Calculating Engineer: TE
Approved by: DG

Date: 01/07/2022
Date: 18/07/2022

Depth (mm)	Nr Blow	Cumulative blows
50		
100	13	13
150		
200	12	25
250		
300	9	34
350		
400	8	42
450		
500	6	48
550		
600	4	52
650		
700	4	56
750		
800	3	59
850		
900	1	60
950		
1000	1	61

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%)		E (MPa)
				IAN 73/06	TRL 587	
CBR3-Test 1	100	200	8.3	32.1	30.9	162.06
CBR3-Test 2	200	500	13.0	20	19.9	119.72
CBR3-Test 3	500	800	27.3	9.2	9.7	72.83
CBR3-Test 4	800	1000	100.0	2.3	2.7	29.99

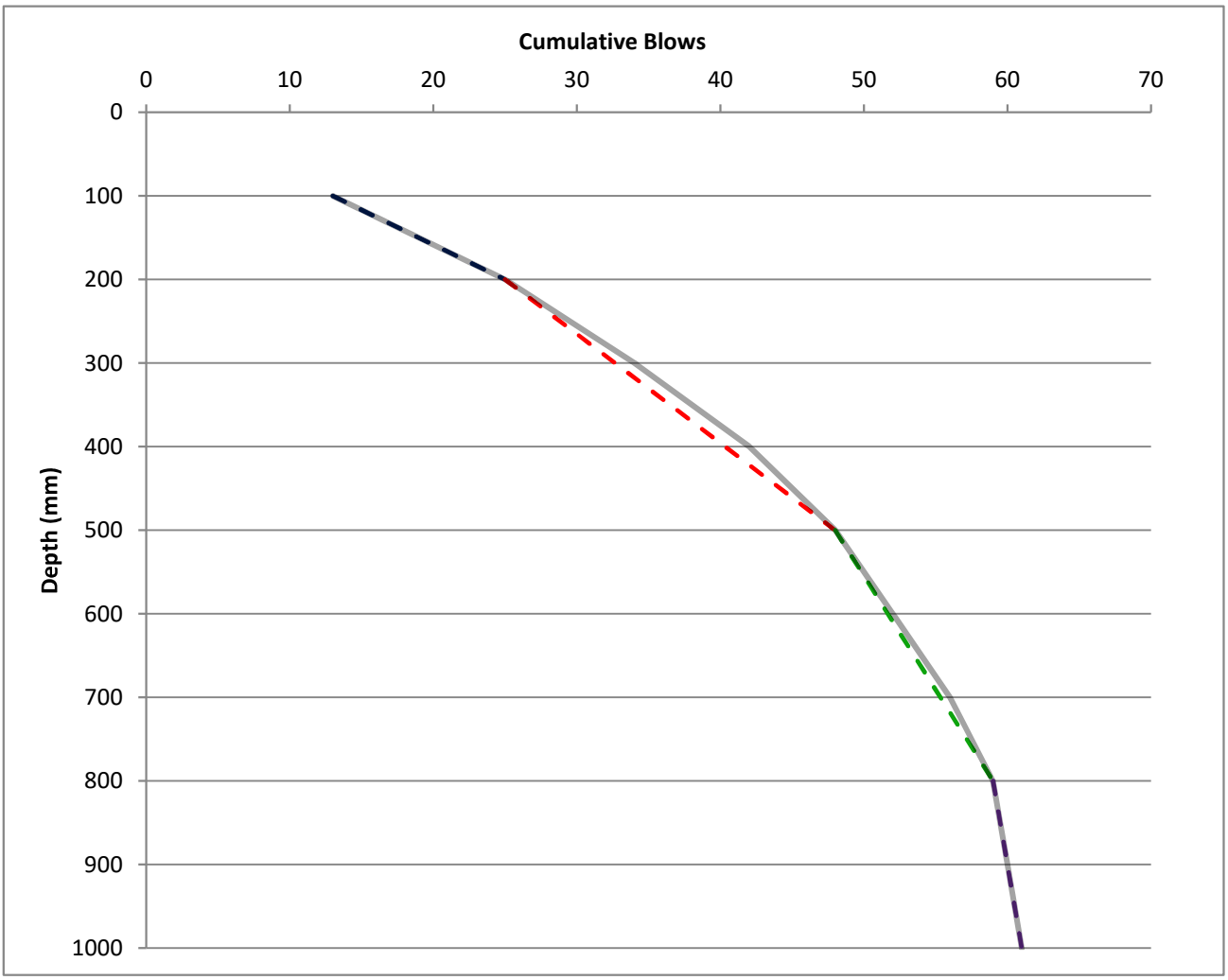
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodoloies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



CBR Calculation

Jomas Job: Horton Road
Jomas Job No.: P4398J2568

Test Location: CBR4
Date of Test: 31/05/2022

Calculating Engineer: TE
Approved by: DG

Date: 01/07/2022
Date: 18/07/2022

Depth (mm)	Nr Blow	Cumulative blows
50		
100	11	11
150		
200	10	21
250		
300	9	30
350		
400	7	37
450		
500	5	42
550		
600	4	46
650		
700	3	49
750		
800	1	50
850		
900	1	51
950		
1000	2	53

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%)		E (MPa)
				IAN 73/06	TRL 587	
CBR4-Test 1	100	300	10.5	25.1	24.6	138.45
CBR4-Test 2	300	500	16.7	15.4	15.7	101.28
CBR4-Test 3	500	700	28.6	8.7	9.2	70.28
CBR4-Test 4	700	1000	75.0	3.1	3.6	36.31

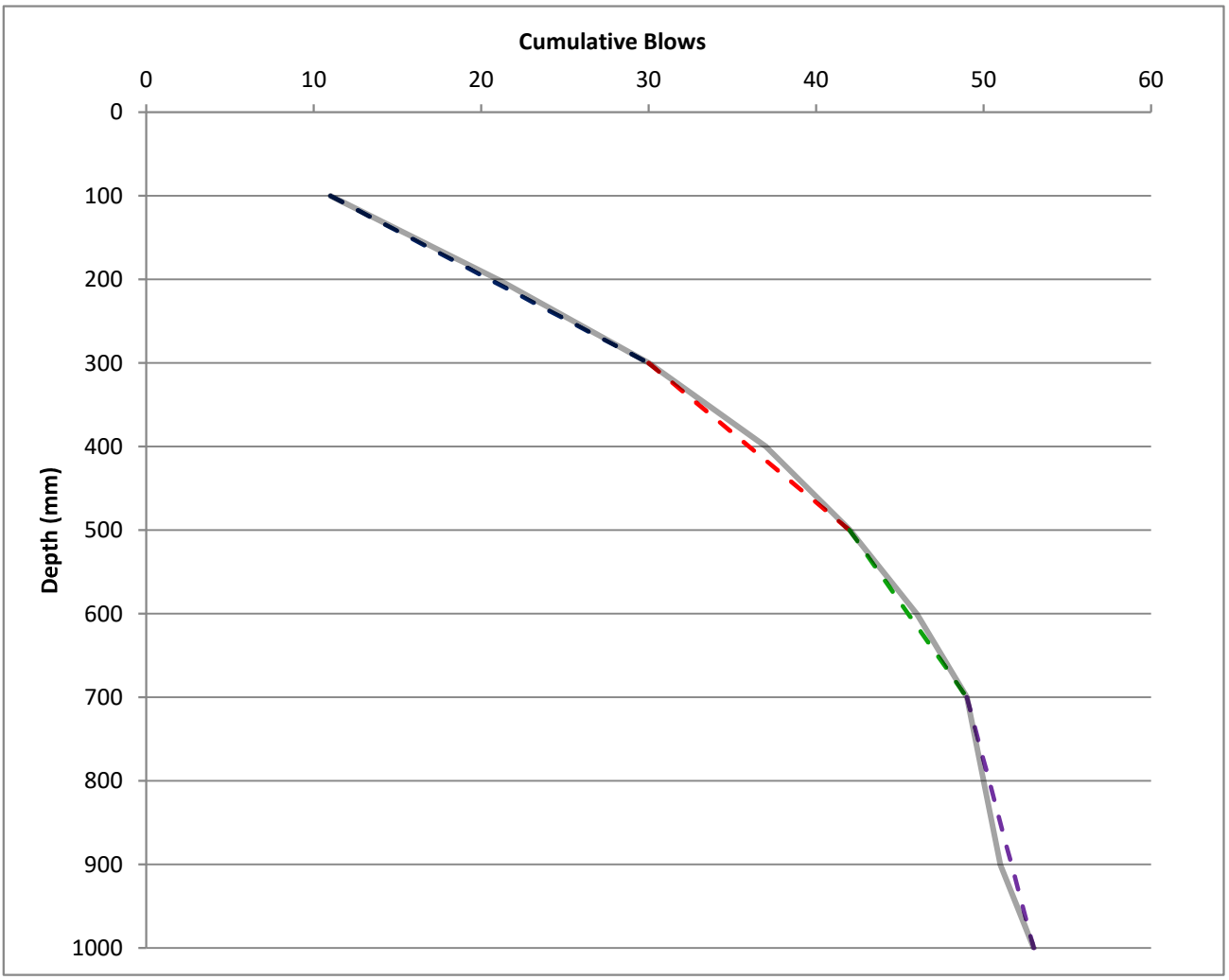
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodoloies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



CBR Calculation

Jomas Job: Horton Road
Jomas Job No.: P4398J2568

Test Location: CBR5
Date of Test: 31/05/2022

Calculating Engineer: TE
Approved by: DG

Date: 01/07/2022
Date: 18/07/2022

Depth (mm)	Nr Blow	Cumulative blows
50		
100	17	17
150		
200	12	29
250		
300	9	38
350		
400	7	45
450		
500	5	50
550		
600	4	54
650		
700	3	57
750		
800	2	59
850		
900	1	60
950		
1000	1	61

Test	Initial Depth (mm)	Final Depth (mm)	mm / blow	CBR (%)		E (MPa)
				IAN 73/06	TRL 587	
CBR5-Test 1	100	300	9.5	27.9	27.1	148.15
CBR5-Test 2	300	500	16.7	15.4	15.7	101.28
CBR5-Test 3	500	700	28.6	8.7	9.2	70.28
CBR5-Test 4	700	1000	75.0	3.1	3.6	36.31

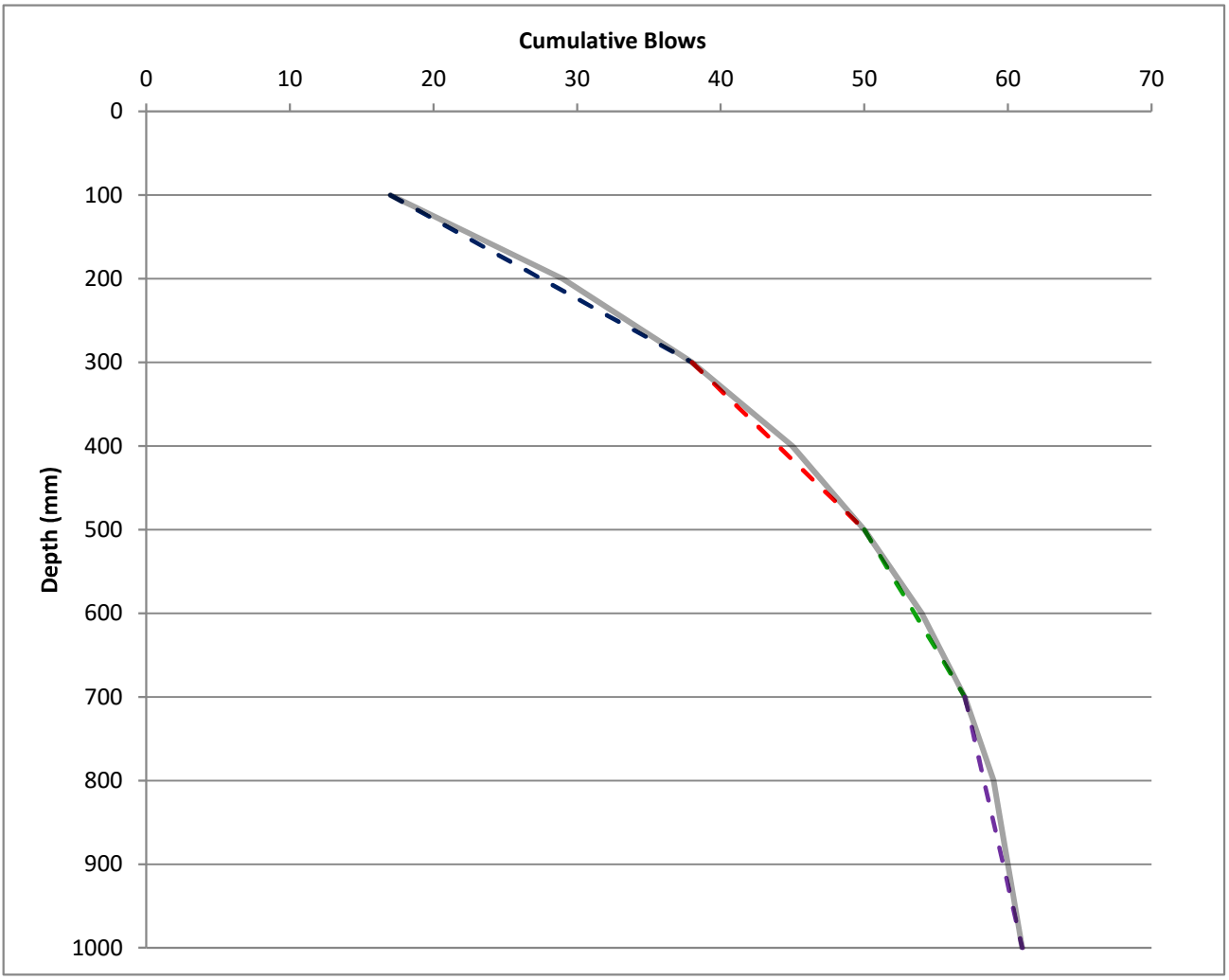
Test Notes:

Test carried out using a TRL Dynamic Cone Penetrometer consisting of a 8 kg free fall hammer lifted and dropped through a height of 575mm.

Colour of text refers to the modelled gradient on graph below.

CBR's calculated using methodoloies outlined in IAN 73/06 and in TRL 587.

Characteristic MC% ? N



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