

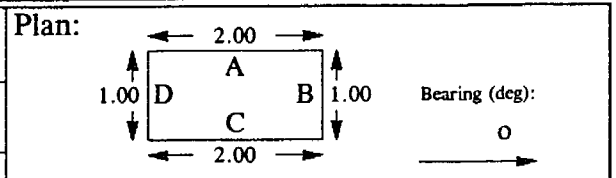
Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95 Version: 1

Co-ordinates (National): EN	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 1
Date: 03/05/95 to 03/05/95	Depth of Hole: 2.30	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo-Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.10	0.10	<p>MADE GROUND: Dark grey, black and grey medium to coarse ash sand fine to medium sub-angular to angular gravel of clinker and coal, with some charred wood fragments and occasional metal fragments.</p> <p>MADE GROUND: Grey fine to medium ash sand with a little fine to coarse sub-angular to angular clinker gravel. Occasional metal fragments showing red-brown oxides.</p> <p>MADE GROUND: Grey fine to medium ash sand with a little fine to medium sub-angular to angular clinker gravel with occasional cobbles and boulders of reinforced concrete. Also contains metal cable, reinforcing bars, cloth rags and metal pipework.</p> <p>Soft black organic very silty CLAY with roots. Strong organic odour.</p> <p>Firm brown mottled orange-brown silty CLAY with a little fine to medium sub-rounded to sub-angular quartzite gravel and roots.</p> <p>End of Trial Pit 1 at 2.30 m.</p>	MADE GROUND	[Cross-hatch pattern]		[Cross-hatch pattern]	
0.30	2	D		0.40	0.50						
0.80	3	D		0.90	1.40						
1.50	4	D		1.50	1.60						
1.80	5	D		1.70	2.30						

Remarks:
 Clay land drainage pipe encountered at 1.80 m depth. Red-brown oxides noted from 0.10 to 0.50 m depth. Strong organic odour noted from 1.40 to 1.60 m depth.

Shoring: Not Shored
Stability: Sidewalls Unstable Between Ground Level and 1.40 m
Groundwater: Slight Groundwater Seepage at 1.40 m
For abbreviations and symbols see key sheet



Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		

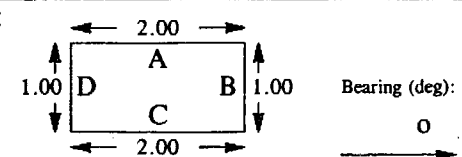



Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 2
Date: 03/05/95 to 03/05/95	Depth of Hole: 2.30	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.10	0.10	<p>MADE GROUND: Dark grey, dark brown and brown medium to coarse ash sand / fine sub-angular to angular clinker gravel with occasional fragments of metal and wood and a little fine to medium sub-angular coal gravel.</p> <p>MADE GROUND: Red-brown, orange-brown, grey and pale grey medium to coarse ash sand / fine to medium sub-angular to angular clinker gravel with pockets of grey silty ash and fibrous asbestos.</p> <p>MADE GROUND: Grey and pale grey fine to medium ash sand with some coarse ash sand and a little fine to medium sub-angular to angular clinker gravel and sub-angular coal gravel.</p> <p>MADE GROUND: Firm brown mottled orange-brown slightly sandy silty clay with a little fine to medium sub-angular coal gravel and roots.</p> <p>Firm blue-grey mottled orange-brown clayey SILT with a little sub-rounded sandstone gravel and orange-brown staining along root traces.</p> <p>Firm brown mottled orange-brown and blue-grey very silty CLAY with occasional roots.</p> <p>End of Trial Pit 2 at 2.30 m.</p>					
0.25	2	D		0.40	0.50						
0.70	3	D		0.40	0.90						
0.95	4	D		0.10	1.00						
1.25	5	D		0.90							
2.00	6	D		0.40	2.30						

Remarks:
Fibrous asbestos noted between 0.10 m and 0.50 m depth.

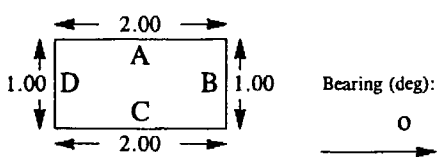

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Stable		
Groundwater: Slight Groundwater Seepage at 2.30 m		
For abbreviations and symbols see key sheet		
Scale: 1:50 All dimensions in metres		Processed by: J GIBSON Logged by: J GIBSON

Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR		Record of TP 3
Date: 03/05/95 to 03/05/95	Depth of Hole: 2.10	Length of side A: 2.00	Length of side B: 1.00 Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.08	0.08	<p>MADE GROUND: Dark grey, dark brown and black medium to coarse ash sand / fine to medium sub-angular to angular clinker gravel with a little sub-angular coal gravel and occasional fragments of charred wood.</p> <p>MADE GROUND: Pale grey-brown medium to coarse ash sand / medium to coarse sub-angular to angular clinker gravel with a little fine to medium rounded quartzite and sandstone gravel and occasional metal fragments.</p> <p>MADE GROUND: Dark grey and black medium to coarse ash sand / fine sub-angular to angular clinker gravel and a little fine to medium rounded quartzite gravel. Some white and blue-grey oxides within clinker.</p> <p>MADE GROUND: Soft to firm dark brown slightly sandy silty clay with a little fine to medium sub-rounded to sub-angular sandstone and shale gravel and occasional sandstone cobbles. Becoming firm below 0.70 m depth.</p> <p>Stiff orange-brown mottled purple-brown slightly sandy silty CLAY with some fine to coarse sub-rounded to sub-angular sandstone and shale gravel and occasional sandstone cobbles. Becoming very stiff and purple-brown below 1.90 m depth.</p> <p>End of Trial Pit 3 at 2.10 m.</p>	MADE GROUND	[Cross-hatched pattern]		[Cross-hatched pattern]	
0.15	2	D		0.32	0.40						
0.50	3	D		0.20	0.60						
0.65	4	D		0.30	0.90						
1.00	5	D		1.20							
				2.10			ALLUVIUM	[Dotted pattern]			

Remarks:
Some white and blu-grey oxides noted between 0.60 m and 0.90 m depth.

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Stable	Bearing (deg): 0	
Groundwater: No Groundwater Encountered		
For abbreviations and symbols see key sheet		
Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		

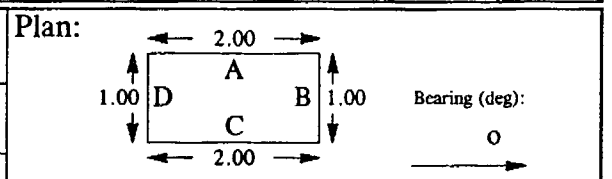
Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of
Date: 03/05/95 to 03/05/95	Depth of Hole: 2.20	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	TP 4

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill	
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)							
0.10	1	D		0.06	0.06	MADE GROUND: Dark grey ashy silty fine to medium sand and fine to medium angular clinker and rounded quartzite gravel with metal fragments.						
0.40	2	D		0.10	0.16							
0.55	3	D		0.20	0.36							
1.25	4	D		0.14	0.50	MADE GROUND: Pale grey, pale brown, grey, brown and dark grey medium to coarse sandy ash and fine to medium sub-angular to angular clinker and sub-angular coal gravel with occasional fragments of metal and charred wood. Occasional orange-brown oxides.		ALLUVIUM				
				0.40	0.90	MADE GROUND: Two courses of loose-laid brickwork with voids between bricks.						
				1.30		MADE GROUND: Pale grey, pale brown, grey, brown and dark grey fine medium to coarse ash sand and sub-angular to angular clinker and coal gravel with occasional fragments of metal and charred wood. Occasional orange-brown oxides.						
				2.20		MADE GROUND: Firm brown slightly sandy silty clay with some fine to medium sub-angular clinker and coal gravel. Becoming orange-brown mottled red-brown below 0.70 m depth. Firm to stiff red-brown mottled orange-brown slightly sandy silty CLAY with root traces. Becoming purple-brown below 1.20 m depth. End of Trial Pit 4 at 2.20 m.						

Remarks:
 Clay land drainage pipe encountered at 1.25 m depth. Occasional orange-brown oxides noted between 0.16 m and 0.36 m depth and between 0.36 m and 0.50 m depth.

Shoring: Not Shored
Stability: Sidewalls Stable
Groundwater: No Groundwater Encountered
For abbreviations and symbols see key sheet



Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		

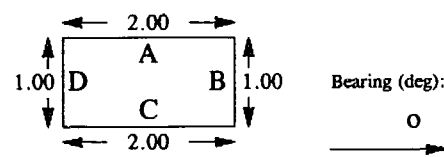



Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR		Record of TP 5
Date: 03/05/95 to 03/05/95	Depth of Hole: 2.60	Length of side A: 2.00	Length of side B: 1.00	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo. Head/Fill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.08	0.08	MADE GROUND: Dark brown and black fine to medium ash sand / fine to medium angular clinker gravel with occasional metal fragments and cordite. MADE GROUND: Pale grey coarse silt/fine ash sand, partially cemented, with 30 mm bands of pale brown fine to medium sandy ash and occasional metal fragments.	MADE GROUND	[Cross-hatch pattern]		[Cross-hatch pattern]	
0.25	2	D									
0.70	3	D		1.36	1.44						
1.60	4	D		0.46	1.90	Firm dark brown mottled black silty organic CLAY with roots and a little fine sub-rounded sandstone gravel. Organic odour.	ALLUVIUM	[X pattern]		[X pattern]	
2.00	5	D		0.30	2.20	Firm grey-brown with orange-brown mottles clayey SILT with pockets of olive-grey clayey silt and rootlets.					
2.40	6	D		0.40	2.60	Firm blue-grey mottled brown and orange-brown silty CLAY with a little fine sub-rounded sandstone gravel. End of Trial Pit 5 at 2.60 m.					

Remarks:
Organic odour noted between 1.44 and 1.90 m depth.

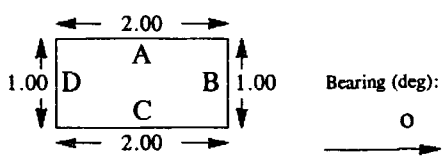

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Unstable Between 0.90 m and 1.45 m		
Groundwater: Groundwater Seepage at 0.90 m		
For abbreviations and symbols see key sheet		
Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		

Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 6
Date: 03/05/95 to 03/05/95	Depth of Hole: 2.80	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.08	0.08	MADE GROUND: Dark grey, grey and black medium to coarse ash sand / fine sub-angular to angular clinker gravel with occasional metal fragments and sticks of cordite up to 70 mm in length.		MADE GROUND	[Cross-hatched pattern]		[Cross-hatched pattern]
0.15	2	D									
0.65	3	D		1.42		MADE GROUND: Pale grey coarse silt/fine ash sand, partially cemented, with 30 mm bands of pale brown fine to medium sandy ash and occasional metal fragments.		MADE GROUND	[Cross-hatched pattern]		[Cross-hatched pattern]
1.05	4	D		1.50							
1.60	5	D		0.26	1.76	Dark brown mottled black organic silty CLAY with abundant roots. Organic odour.	ALLUVIUM	[Vertical line pattern]			[Vertical line pattern]
1.95	6	D		0.54	2.30	Firm brown mottled orange-brown clayey SILT with beds of firm brown silty clay up to 50 mm thick.					
				0.50	2.80	Firm brown mottled orange-brown silty CLAY.					
						End of Trial Pit 6 at 2.80 m.					

Remarks:
Organic odour noted between 1.50 m and 1.76 m depth.

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Unstable Between 1.05 m and 1.50 m		
Groundwater: Groundwater Seepage at 1.05 m		
For abbreviations and symbols see key sheet		
Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres	ENVIRONMENTAL SERVICES GROUP	

Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of
Date: 03/05/95 to 03/05/95	Depth of Hole: 3.20	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	TP 7

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.15	1	D		0.30	0.30	<p>MADE GROUND: Dark grey, dark brown and black medium to coarse ash sand with much fine to medium and some coarse angular to sub-angular clinker gravel and a little fine sub-angular coal gravel. Abundant metal fragments, including nails, screws, washers, hinges etc. Occasional glass shards and fragments of charred wood. Some white oxides visible within clinker.</p>	MADE GROUND	[Cross-hatch pattern]		[Cross-hatch pattern]	
0.35	2	D		0.44							
0.55	3	D		0.50							
1.50	4	D		2.10	2.30	<p>MADE GROUND: Dark brown and black medium to coarse ash sand with some fine to medium angular clinker gravel and a little fine sub-angular coal gravel. Abundant metal fragments, including hinges, fragments of tin box, nails, screws etc. Occasional glass shards and fragments of cloth and charred wood. Blue, green and white oxides noted within clinker.</p>	ALL ALLUVIUM	[Vertical line pattern]		[Cross-hatch pattern]	
2.40	5	D		3.20							
						<p>MADE GROUND: Pale grey medium ash sand, partially cemented, with occasional metal fragments</p> <p>MADE GROUND: Grey coarse silt/fine ash sand, partially cemented, with 30 mm bands of pale brown fine to medium ash sand and occasional metal fragments.</p> <p>Firm dark brown mottled black silty organic CLAY with abundant roots. Organic odour.</p> <p>Firm brown mottled orange-brown silty CLAY with a little fine to medium rounded to sub-angular sandstone gravel and roots.</p> <p>End of Trial Pit 7 at 3.20 m.</p>					

Remarks:
Some white oxides noted between 0.00 m and 0.30 m depth. Blue, green and white oxides noted between 0.30 m and 0.44 m depth. Organic odour noted between 2.10 and 2.30 m depth.

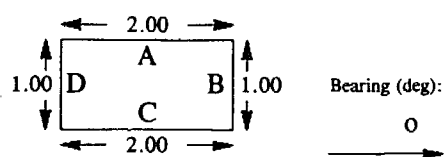

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Unstable Between 1.00 m and 2.10 m		
Groundwater: Groundwater Seepage at 1.00 m		
For abbreviations and symbols see key sheet		
Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		ENVIRONMENTAL SERVICES GROUP

Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): EN	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 8
Date: 03/05/95 to 03/05/95	Depth of Hole: 2.30	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.10	1	D		0.14		<p>MADE GROUND: Dark grey and black medium to coarse ash sand / fine angular clinker and coal gravel, with occasional fragments of charred wood.</p> <p>MADE GROUND: Dark grey, dark brown, brown, red-brown, orange-brown and pale brown coarse ash sand / fine angular clinker gravel with some medium to coarse angular clinker and coal gravel. Occasional half bricks, roots and fragments of charred wood.</p> <p>MADE GROUND: Firm brown mottled orange-brown slightly sandy silty clay with a little fine sub-angular coal gravel.</p> <p>Firm dark brown mottled brown silty CLAY with a little fine to medium rounded sandstone gravel and roots.</p> <p>Firm brown mottled orange-brown and dark brown silty CLAY with a little to some fine to coarse sub-rounded to sub-angular sandstone gravel and occasional cobbles of sandstone.</p> <p>End of Trial Pit 8 at 2.30 m.</p>		MADE GROUND			
0.30	2	D		0.44							
0.55	3	D		0.64							
0.80	4	D		1.10							
1.40	5	D		2.30					ALLUVIUM		

Remarks:

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Stable		
Groundwater: Slight Groundwater Seepage at 1.70 m	 BRITISH AEROSPACE DEFENCE ROYAL ORDNANCE ENVIRONMENTAL SERVICES GROUP	
For abbreviations and symbols see key sheet		
Scale: 1:50		Processed by: J GIBSON
All dimensions in metres		Logged by: J GIBSON

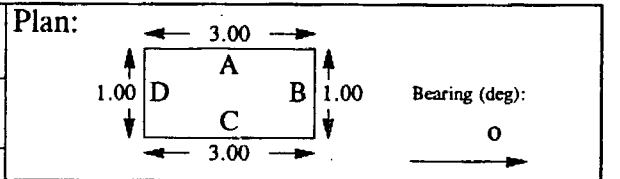
Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 9
Date: 03/05/95 to 03/05/95	Depth of Hole: 0.90	Length of side A: 3.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.12	0.12	<p>MADE GROUND: Dark grey and black silty fine to medium ash sand with some fine to medium angular clinker and sub-rounded quartzite gravel and a little fine to coarse angular gravel of concrete. Occasional fragments of asbestos-cement sheeting and charred wood. White oxides within clinker.</p> <p>MADE GROUND: Dark grey, dark brown and black silty fine to medium ash sand with much fine to coarse sub-angular and angular gravel of quartzite, brick, clinker and concrete, and cobbles and boulders of concrete. Occasional fragments of wood and asbestos-cement sheeting. Occasional sections of metal pipework and reinforcing bars. Pocket of blue oxides noted at 0.50 m depth.</p> <p>End of Trial Pit 9 at 0.90 m.</p>	MADE GROUND	[Cross-hatch pattern]		[Cross-hatch pattern]	
0.25	2	D									
0.50	3	D		0.78	0.90						

Remarks:
 Trial pit terminated at 0.90 m depth due to the presence of obstructions (large concrete blocks). White oxides noted between 0.00 m and 0.12 m depth. Pocket of blue oxides noted at 0.50 m depth.

Shoring:	Not Shored
Stability:	Sidewalls Unstable
Groundwater:	No Groundwater Encountered
For abbreviations and symbols see key sheet	



Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		



Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): EN	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 10
Date: 03/05/95 to 03/05/95	Depth of Hole: 2.00	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.08	0.08	MADE GROUND: Dark grey and black medium to coarse ash sand / medium to coarse angular clinker gravel with occasional metal fragments and white oxides.		MADE GROUND	[Cross-hatch pattern]		[Cross-hatch pattern]
0.20	2	D		0.26	0.34						
0.40	3	D		0.46	0.50						
0.60	4	D		0.34	0.84	MADE GROUND: Dark grey, grey and pale grey medium to coarse ash sand with a little fine to medium angular clinker and occasional white oxides.		MADE GROUND	[Cross-hatch pattern]		[Cross-hatch pattern]
0.90	5	D		0.16	1.00	MADE GROUND: Dark grey, dark brown, black and pale brown fine to coarse ash sand / fine angular clinker gravel, with a little medium to coarse angular clinker gravel and occasional metal fragments, charred wood fragments and white oxides.					
1.30	6	D		1.00		MADE GROUND: Black, dark grey, grey and pale brown medium to coarse ash sand / fine to medium angular clinker gravel with occasional medium clinker gravel and metal fragments. Occasional pockets of pale brown "paste" approximately 1 to 2 cc in volume.		ALLUVIUM	[Vertical line pattern]		[Vertical line pattern]
				2.00		MADE GROUND: Firm red-brown mottled orange brown very sandy clay with a little fine angular clinker and sub-angular coal gravel. Firm orange-brown mottled blue-grey slightly sandy very silty CLAY. Becoming firm to stiff below 1.30 m depth. End of Trial Pit 10 at 2.00 m.					

Remarks:
White oxides noted between 0.00 and 0.50 m depth.

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Stable		
Groundwater: Slight Groundwater Seepage at 1.60 m		
For abbreviations and symbols see key sheet		
Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		ENVIRONMENTAL SERVICES GROUP



Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of
Date: 02/05/95 to 02/05/95	Depth of Hole: 1.60	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	TP 11

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.15	1	D		0.24	0.24	<p>MADE GROUND: Dark brown, dark grey and grey medium to coarse ash sand / fine to medium sub-angular to angular clinker and coal gravel with occasional fragments of charred wood and metal.</p> <p>MADE GROUND: Dark grey and grey medium to coarse ash sand / medium to coarse sub-angular to angular clinker gravel and a little fine angular coal gravel with occasional fragments of charred wood and metal. White and orange-brown oxides noted.</p> <p>MADE GROUND: Dark grey and grey medium to coarse ash sand / medium to coarse sub-angular to sub-rounded clinker gravel and a little fine angular coal gravel with occasional fragments of charred wood and metal. White and red-brown oxides noted.</p> <p>MADE GROUND: Firm brown slightly sandy silty clay with a little fine to medium sub-angular coal gravel and occasional pottery shards.</p> <p>Firm dark brown slightly sandy silty CLAY with abundant roots.</p> <p>Firm to stiff brown mottled orange-brown silty CLAY.</p> <p>End of Trial Pit 11 at 1.60 m.</p>	ALLUVIUM MADE GROUND	XIX - XIX			
0.30	2	D		0.26	0.50						
0.60	3	D		0.30	0.80						
0.90	4	D		0.24	1.04						
1.50	5	D		0.26	1.30						
				0.30	1.60						

Remarks:
 White and orange-brown oxides noted between 0.24 and 0.80 m depth.

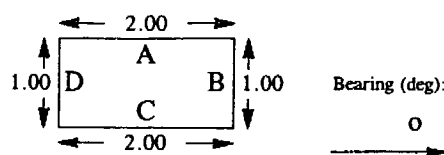

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Stable		
Groundwater: Slight Groundwater Seepage at 1.55 m		
For abbreviations and symbols see key sheet		
Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres	ENVIRONMENTAL SERVICES GROUP	

Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): EN	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 12
Date: 02/05/95 to 02/05/95	Depth of Hole: 1.90	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hard Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.00	0.10	MADE GROUND: Dark grey and black medium to coarse ash sand / fine to medium sub-angular to angular clinker gravel with occasional fragments of metal and white oxides.	MADE GROUND	[Cross-hatch pattern]		[Cross-hatch pattern]	
0.25	2	D		0.24	0.34						
0.50	3	D		0.86	1.20						
1.30	4	D		0.40	1.60	MADE GROUND: Firm brown slightly sandy silty clay with a little fine to medium angular coal gravel and sub-rounded sandstone and quartzite gravel. Firm to stiff brown slightly sandy silty CLAY with occasional roots. Firm to stiff red-brown mottled purple-brown silty CLAY. Becoming stiff below 1.70 m depth. Becoming very stiff below 1.80 m depth. End of Trial Pit 12 at 1.90 m.	ALLUVIUM	[Vertical lines pattern]		[Vertical lines pattern]	
1.70	5	D		0.30	1.90						

Remarks:
 Clay land drainage pipe encountered at 1.20 m depth. White oxides noted between 0.00 m and 0.12 m depth, and white and red-brown oxides noted between 0.10 and 0.34 m depth.

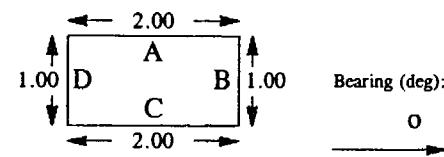

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Stable		
Groundwater: Slight Groundwater Seepage at 1.80 m		
For abbreviations and symbols see key sheet		
Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		

Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of
Date: 02/05/95 to 02/05/95	Depth of Hole: 2.10	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	TP 15

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill	
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)							
0.15	1	D		0.24	0.24	MADE GROUND: Black, dark grey and grey medium to coarse ash sand / fine sub-angular to angular clinker gravel and a little fine angular coal gravel with occasional fragments of charred wood, cloth and metal. White and red-brown oxides noted.		MADE GROUND	[Symbol]		[Symbol]	
0.35	2	D		0.54	0.54							
0.55	3	D		0.60	0.60							
0.75	4	D		0.90	0.90							
1.00	5	D		1.20	1.20							
1.40	6	D		1.60	1.60							
1.90				1.90	1.90	MADE GROUND: Dark grey and grey medium to coarse ash sand / fine sub-angular to angular clinker gravel with occasional metal fragments. White oxides noted.	GLACIAL TILL	[Symbol]			[Symbol]	
				2.10	2.10	MADE GROUND: Dark grey, grey, brown and pale brown fine to coarse ash sand / fine sub-angular to angular clinker gravel with occasional metal fragments. White oxides noted.						
						MADE GROUND: Dark brown, dark grey, grey and orange-brown medium to coarse ash sand / fine to coarse sub-angular to angular clinker gravel with some white and red-brown oxides.						
						Firm grey-brown mottled orange-brown and purple-brown slightly sandy silty CLAY with a little medium to coarse sub-rounded to rounded sandstone gravel and occasional pockets of olive-grey silty clay.						
						Firm reddish-brown mottled purple-brown silty CLAY with pockets of orange-brown silty coarse sand.						
						Stiff red-grey mottled blue-grey thinly laminated silty CLAY, with blue-grey silt along laminations.						
						End of Trial Pit 15 at 2.10 m.						

Remarks:
 White oxides noted between 0.00 m and 0.54 m depth, and between 0.60 m and 1.20 m depth. Red-brown oxides noted between 0.00 m and 0.24 m depth, and between 0.90 m and 1.20 m depth.

Shoring: Not Shored	Plan: 
Stability: Sidewalls Stable	
Groundwater: Slight Groundwater Seepage at 1.80 m	
For abbreviations and symbols see key sheet	

Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		

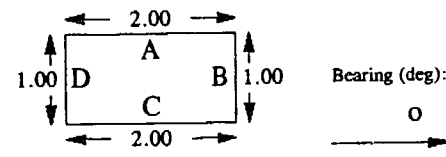

ENVIRONMENTAL SERVICES GROUP

Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95 Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR		Record of TP 17
Date: 02/05/95 to 02/05/95	Depth of Hole: 1.80	Length of side A: 2.00	Length of side B: 1.00	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.10	0.40	<p>MADE GROUND: Dark grey, grey, brown and black medium to coarse ash sand / fine to medium sub-angular to angular clinker gravel with occasional metal fragments. Some medium to coarse angular concrete gravel and cobbles at ground level.</p> <p>MADE GROUND: Dark grey, grey, light grey and pale brown coarse ash sand / fine to medium sub-angular to angular clinker gravel with occasional metal fragments. Some white oxides noted.</p> <p>MADE GROUND: Brown and orange-brown coarse ash sand / fine to medium sub-angular to angular clinker gravel with occasional metal fragments. Some white oxides noted.</p> <p>MADE GROUND: Red-brown, dark grey, olive-grey and black fused ash and clinker, with metal fragments and occasional fragments of cloth.</p> <p>MADE GROUND: Orange-brown mottled red-brown very clayey medium to coarse sand with little medium to coarse rounded sandstone gravel. Occasional pockets of olive-grey clayey medium to coarse sand.</p> <p>Orange-brown mottled red-brown slightly clayey medium to coarse SAND with a little fine to coarse rounded to sub-angular sandstone and quartzite gravel and occasional sandstone cobbles and boulders. Occasional thin (50 mm) beds of firm red-brown very sandy clay.</p> <p>End of Trial Pit 17 at 1.80 m.</p>	GLACIAL TILMADE GROUND	[Cross-hatched pattern]	[Dotted pattern]	[Cross-hatched pattern]	
0.25	2	D		0.40	0.50						
0.55	3	D		0.60	0.66						
0.60	4	D		0.66	0.80						
0.70	5	D		0.80	1.00						
1.00	6	D		1.00	1.80						

Remarks:
White oxides noted between 0.10 m and 0.60 m depth.

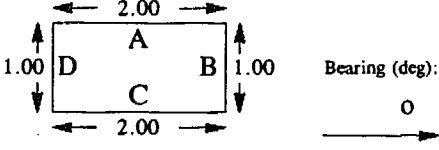
Shoring: Not Shored	Plan: 	
Stability: Sidewalls Stable	Bearing (deg): 0	
Groundwater: Slight Groundwater Seepage at 1.70 m		
For abbreviations and symbols see key sheet		
Scale: 1:50 All dimensions in metres	Processed by: J GIBSON	Logged by: J GIBSON

Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): EN	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of
Date: 04/05/95 to 04/05/95	Depth of Hole: 2.46	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	TP 18

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piercing backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
				0							
0.15	1	D		0.24	0.24	MADE GROUND: Dark grey, dark brown and black medium to coarse ash sand / fine to medium sub-angular to angular clinker gravel with occasional metal fragments. Some white oxides noted.		MADE GROUND			
0.35	2	D		0.26	0.50						
0.60	3	D		0.30	0.80	MADE GROUND: Pale brown, brown, grey and dark grey coarse ash sand / fine to medium sub-angular to angular clinker gravel with occasional fine to medium rounded quartzite gravel and metal fragments.		MADE GROUND			
1.20	4	D		0.30	1.00						
				0.96		MADE GROUND: Firm brown slightly sandy silty clay with some fine to medium rounded quartzite and sandstone gravel and a little fine angular coal gravel. Becoming firm to stiff below 0.60 m depth.		GLACIAL TILL			
2.10	5	D		0.96	1.96						
				0.50	2.46	Firm grey-brown slightly sandy silty CLAY with a little fine to medium rounded sandstone and quartzite gravel.					
						Red-brown mottled orange-brown slightly silty medium to coarse SAND with much fine to coarse rounded to sub-rounded quartzite, sandstone and dolerite gravel and occasional cobbles of sandstone.					
						Firm purple-brown thinly laminated silty CLAY, with green-grey silt along laminations. Becoming firm to stiff below 2.10 m depth.					
						End of Trial Pit 18 at 2.46 m.					

Remarks:
Some white oxides noted between 0.00 m and 0.24 m depth.

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Unstable Between 1.00 m and 1.95 m		
Groundwater: Groundwater Encountered at 1.50 m		
For abbreviations and symbols see key sheet		
Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		ENVIRONMENTAL SERVICES GROUP



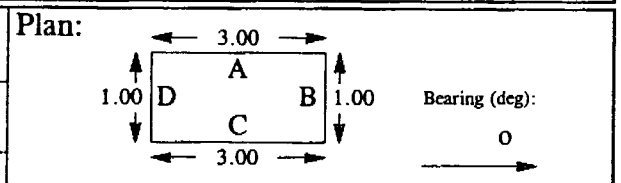
Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): EN	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR		Record of TP 19
Date: 04/05/95 to 04/05/95	Depth of Hole: 2.40	Length of side A: 3.00	Length of side B: 1.00 Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.10	0.10	MADE GROUND: Dark grey, dark brown and grey medium to coarse ash sand / fine sub-angular to angular clinker gravel with metal fragments (nails, screws, hinges, bolts etc), occasional fragments of charred wood and a little fine angular coal gravel.		MADE GROUND			
0.25	2	D		0.56	0.66						
0.85	3	D		0.30	0.96	MADE GROUND: Pale grey coarse silt/fine ash sand, partially cemented.		ALLUVIUM			
1.10	4	D		0.60	1.56	MADE GROUND: Pale grey coarse silt/fine ash sand, partially cemented, with some fine to coarse concrete gravel, occasional cobbles and boulders of concrete, and wood, metal pipework, metal rails, etc.					
1.80	5	D		0.34	2.40	Firm brown mottled orange-brown and olive silty CLAY with a little fine to medium sub-rounded to sub-angular sandstone and quartzite gravel and roots.					
						Firm brown mottled orange-brown silty CLAY with a little fine to medium rounded sandstone gravel and roots.					
End of Trial Pit 19 at 2.40 m.											

Remarks:

Shoring: Not Shored
Stability: Sidewalls Unstable Between 0.50 m and 0.95 m
Groundwater: No Groundwater Encountered
For abbreviations and symbols see key sheet



Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		



Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): EN	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 20
Date: 04/05/95 to 04/05/95	Depth of Hole: 2.60	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.10	1	D		0.30	0.30	<p>MADE GROUND: Dark grey, grey, dark brown and black medium to coarse ash sand / fine to medium sub-angular to angular clinker gravel with a little fine to coarse rounded sandstone and quartzite gravel. Abundant metal fragments, which appear to have been melted and then resolidified within the clinker. Also contains screws, nails, hinges etc.</p> <p>MADE GROUND: Dark brown and black medium to coarse ash sand / fine to coarse sub-angular to angular clinker gravel, with occasional cobbles of clinker. Material is partially fused. Abundant metal fragments, which appear to have been melted and then resolidified within the clinker. Strong hydrocarbons odour at 0.50 m depth.</p> <p>MADE GROUND: Dark brown, brown and dark grey clayey medium to coarse sand with some fine to medium angular clinker gravel and black coarse ash sand and some medium to coarse angular concrete gravel, and occasional cobbles of concrete, bricks and stone sets. Slight hydrocarbons odour.</p> <p>Firm and stiff brown silty CLAY with some fine to coarse sub-rounded to sub-angular sandstone and quartzite gravel and abundant roots.</p> <p>Brown slightly clayey coarse sandy rounded to sub-angular sandstone and quartzite GRAVEL with occasional cobbles of quartzite, sandstone and basal.</p> <p>End of Trial Pit 20 at 2.60 m.</p>	MADE GROUND	[Cross-hatch pattern]		[Cross-hatch pattern]	
0.60	2	D		0.76	1.06						
1.15	3	D		0.24	1.30						
1.40	4	D		0.30	1.50						
1.80	5	D		1.10	2.60						

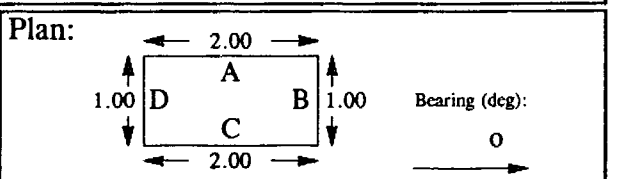
Remarks:
 Strong hydrocarbons odour from 0.50 m to 1.06 m depth. Slight hydrocarbons odour between 1.06 m and 1.30 m depth.

Shoring: **Not Shored**

Stability: **Sidewalls Stable**

Groundwater: **Groundwater Encountered at 2.50 m**

For abbreviations and symbols see key sheet



Scale: **1:50**
 All dimensions in metres

Processed by: **J GIBSON**

Logged by: **J GIBSON**



Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95 Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 21
Date: 04/05/95 to 04/05/95	Depth of Hole: 1.90	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.05	1	D		0.05	0.05	<p>MADE GROUND: Dark grey, grey, dark brown and black medium to coarse ash sand / fine to medium sub-angular to angular clinker gravel and abundant metal fragments (screws, nails, hinges etc)</p> <p>MADE GROUND: Dark brown and black medium to coarse ash sand / fine to coarse sub-angular to angular clinker gravel, with occasional cobbles of clinker. Material is partially fused. Abundant metal fragments, which appear to have been melted and then resolidified within the clinker.</p> <p>Firm brown mottled green-brown silty CLAY with some fine to coarse sub-rounded to sub-angular sandstone and quartzite gravel and abundant roots.</p> <p>End of Trial Pit 21 at 1.90 m.</p>					
0.50	2	D		0.52							
0.90	3	D		1.00							
0.95 1.20	4	W D		0.90	1.90						

Remarks:
 Trial pit terminated at 1.90 m depth on bedrock (sample of rock not obtained).

Shoring: Not Shored	Plan: 	
Stability: Sidewalls Stable		
Groundwater: Groundwater Encountered at 0.90 m		
For abbreviations and symbols see key sheet		
Scale: 1:50 All dimensions in metres		Processed by: J GIBSON Logged by: J GIBSON

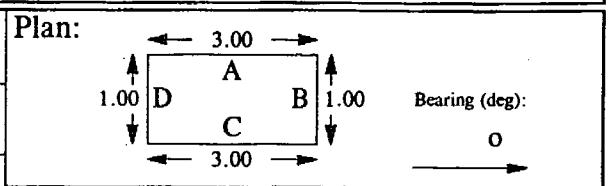
Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY			Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON		Date: 01/12/95
			Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 22
Date: 04/05/95 to 04/05/95	Depth of Hole: 2.80	Length of side A: 3.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piezo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.20	1	D		0.44		MADE GROUND: Veneer of dark grey, dark brown and black medium to coarse ash sand / fine angular clinker gravel over pale grey coarse silt/fine ash sand, partially cemented, with pockets of dark grey, grey, black and brown medium to coarse sandy ash and fine angular clinker gravel.	MADE GROUND	[Cross-hatch pattern]			[Cross-hatch pattern]
0.75	2	D		1.20							
1.30	3	D		1.50		MADE GROUND: Dark grey and grey coarse silt/fine ash sand with much fine to coarse angular concrete gravel, cobbles and boulders of concrete, bricks, timber, metal pipework, reinforcing bars etc. Concrete slabs up to 0.6 m x 0.6 m x 0.3 m. Firm dark brown slightly sandy silty CLAY with a little rounded quartzite gravel and roots.	ALLUVIUM	[Cross-hatch pattern]			[Cross-hatch pattern]
1.65	4	D		2.80							
						End of Trial Pit 22 at 2.80 m.					

Remarks:

Shoring:	Not Shored
Stability:	Sidewalls Unstable Between Ground Level and 1.20 m
Groundwater:	Slight Groundwater seepage at 2.50 m
For abbreviations and symbols see key sheet	



Scale: 1:50	Processed by: J GIBSON	Logged by: J GIBSON
All dimensions in metres		



Project Name: ROYAL ORDNANCE BISHOPTON - BURNING GROUNDS STUDY		Status: FINAL
Project No: INT1-95	Client: ROYAL ORDNANCE BISHOPTON	Date: 01/12/95
		Version: 1

Co-ordinates (National): E N	Ground level (mAOD):	Method: MECHANICAL EXCAVATOR			Record of TP 23
Date: 04/05/95 to 04/05/95	Depth of Hole: 2.80	Length of side A: 2.00	Length of side B: 1.00	Sheet: 1 of 1	

Samples & Tests				Strata		Description of Side A Strata	Strata No.	Geology	Legend	Water	Piergo Backfill
Depth (m)	No.	Type	Hand Vane (kPa)	Depth (m)	Reduced Level (m)						
0.10	1	D		0.14		MADE GROUND: Dark grey, grey, dark brown and black medium to coarse ash sand / fine to medium angular clinker gravel with a little fine to medium rounded quartzite gravel and occasional bricks and metal fragments.	MADE GROUND	[Symbol]			
0.20	2	D		0.30							
0.45	3	D		0.36							
0.75	4	D		0.60		MADE GROUND: Dark grey and grey coarse silt/fine ash sand, partially cemented.	MADE GROUND	[Symbol]			
1.35	5	D		1.20		MADE GROUND: Orange-brown coarse ash sand with a little fine angular clinker gravel.					
2.00	6	D		1.70		MADE GROUND: Dark grey, grey, dark brown and black medium to coarse ash sand / fine to coarse angular clinker gravel with a little fine to medium rounded quartzite gravel and occasional bricks and metal fragments. Some white oxides noted within clinker.	ALLUVIUM	[Symbol]			
				2.80		MADE GROUND: Brown very clayey fine to coarse sub-rounded to angular gravel of clinker, concrete, coal, sandstone, quartzite and brick, with cobbles of concrete, bricks, and occasional fragments of slate, cloth and leather.					
						Firm dark brown slightly sandy silty CLAY with a little fine to medium sub-rounded to sub-angular gravel.					
						Soft to firm green-brown mottled brown and orange-brown clayey fine sandy SILT, becoming silty fine sand in places, and with thin (50 mm) beds of soft brown silty clay.					
						End of Trial Pit 23 at 2.80 m.					

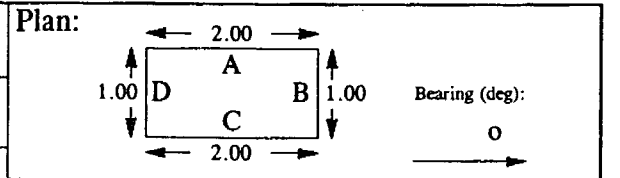
Remarks:
Some white oxides noted between 0.36 and 0.60 m depth.

Shoring: **Not Shored**

Stability: **Sidewalls Stable**

Groundwater: **Slight Groundwater Seepage at 2.60 m**

For abbreviations and symbols see key sheet



Scale: **1:50**

Processed by: **J GIBSON**

Logged by: **J GIBSON**

All dimensions in metres

