

# **APPENDIX D**

## **Exploratory Hole Records**

Exploratory Hole ID: <b>WS1</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b> www.opusjoynespike.co.uk							
Job No: <b>J-S0099</b>	Site: <b>Sheffield Road, Penistone</b>								
Drilling Equipment/ Excavation Method: "Premier Compact 120" Tracked Window Sampler Rig		Co-ords:	Backfill Date: 13/02/2009	End Date: 13/02/2009					
Ground Level (mAOD):		Logged: TPW	Chkd: <i>fw</i>	Appr: <i>fw</i>					
Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details	
MADE GROUND: Fine to coarse sandy, fine to coarse gravelly, high plasticity, dark grey and black CLAY with many rootlets. Gravel is angular coal and sandstone.	0.50			D, J	0.10-0.50				
MADE GROUND: Fine to coarse sandy, high plasticity, pale brown, dark brown and orange CLAY. Rare fine, angular gravel of brick and pottery from c.0.8mbeg.				D, J	0.50-1.00				
MADE GROUND: Fine to coarse black SAND and fine to coarse GRAVEL. Sand includes much ash. Gravel is angular ash, clinker, coal, brick and sandstone.	1.00			D, J	1.00-1.50	N=52(S)			
MADE GROUND: Angular COBBLES of brick, sandstone and fused slag in a matrix of fine to coarse black SAND of ash and coal.	1.40			D, J	1.50-2.00				
NO SAMPLE RECOVERY - Cutting shoe blocked by brick cobble.	2.00					N=5(C)			
MADE GROUND: Fine to coarse black SAND and fine to coarse GRAVEL. Sand is ash and coal. Gravel is angular ash, clinker, coal and fused slag.	3.00					N=7(C)			
Fine to coarse sandy, fine to coarse slightly gravelly, high plasticity, grey, pale grey and orange-brown, very stiff consistency CLAY. Gravel is angular coal and sandstone (Glacial Till).	3.40			D	3.50-4.00				
End of Exploratory Hole at 4.00 m	4.00					N=86(C)			
Remarks: 1. Borehole completed at 4.0m begl. 2. Monitoring standpipe installed to 4.0m begl. 3. No groundwater encountered. 4. All SPT 'N' values are corrected to an N60 value in accordance with BS 22476 Part 3 and where appropriate extrapolated for partial penetration.						<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample		<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Penetrometer Reading PID - PID Reading V - Hand Shear Vane Reading	
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Exploratory Hole ID: <b>WS2</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b> www.opusjoynespike.co.uk		
Job No: <b>J-S0099</b>	Site: <b>Sheffield Road, Penistone</b>	Start Date: <b>13/02/2009</b>	End Date: <b>13/02/2009</b>	
Drilling Equipment/ Excavation Method: "Premier Compact 120" Tracked Window Sampler Rig		Co-ords:	Backfill Date: <b>13/02/2009</b>	Field Records:
Ground Level (mAOD):		Logged: <b>TPW</b>	Chkd: <i>lw</i>	Appr: <i>lw</i>

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Fine to coarse sandy, fine to coarse gravelly, high plasticity, dark grey, firm consistency CLAY. Gravel is angular mudstone, sandstone and brick.				D, J	0.40-1.00			
MADE GROUND: Fine to coarse very sandy, fine to coarse very gravelly, high plasticity, dark grey and black, soft consistency CLAY with a moderate cobble content. Sand includes much ash. Gravel and cobbles are angular sandstone, brick and fused slag.	1.00			D, J	1.00-1.30	N=10(C)		
HARD OBSTRUCTION AT 1.30m End of Exploratory Hole at 1.30 m	1.30							

Remarks: 1. Borehole completed at 1.3m begl after hard obstruction encountered. 2. Borehole backfilled with arisings. 3. No groundwater encountered. 4. All SPT 'N' values are corrected to an N60 value in accordance with BS 22476 Part 3 and where appropriate extrapolated for partial penetration.	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"> <b>Sample Type Key</b>            D - Disturbed Representative            B - Bulk Representative            S - Spot Non-Representative            W - Water            U - Undisturbed Representative            J - Jar Sample         </td> <td style="width:50%;"> <b>Test Type Key</b>            (C) - Cone SPT            (S) - Spoon SPT            P - Pocket Pentrometer Reading            PID - PID Reading            V - Hand Shear Vane Reading         </td> </tr> </table>	<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading
<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading		
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Exploratory Hole ID: <b>WS3</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b>	
	Site: <b>Sheffield Road, Penistone</b>	www.opusjoynespike.co.uk	
Job No: <b>J-S0099</b>		Start Date: 13/02/2009	End Date: 13/02/2009
Drilling Equipment/ Excavation Method: "Premier Compact 120" Tracked Window Sampler Rig		Co-ords:	Backfill Date: 13/02/2009
		Ground Level (mAOD):	Field Records:
		Logged: TPW	Chkd: <i>RW</i> Appr: <i>lw</i>

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details	
MADE GROUND: Fine to coarse very sandy, fine to coarse very gravelly, high plasticity, dark grey and dark brown, soft, locally very soft, consistency CLAY with a low cobble content. Sand includes much ash. Gravel and cobbles are angular brick, sandstone, fused slag and clinker.  HARD OBSTRUCTION AT 2.60m				D, J	0.10-0.50				
				D, J	0.50-1.00				
				D, J	1.00-1.50	N=7(C)			
				D	1.50-2.00	N=2(C)			
End of Exploratory Hole at 2.60 m	2.60								

Remarks: 1. Borehole completed at 2.6m begl after hard obstruction encountered. Relocated approximately 3m to the southwest as WS3A. 2. Borehole backfilled with arisings. 3. No groundwater encountered. 4. All SPT 'N' values are corrected to an N60 value in accordance with BS 22476 Part 3 and where appropriate extrapolated for partial penetration.	Sample Type Key D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	Test Type Key (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading
Sheet: <b>Sheet 1 of 1</b>		

Exploratory Hole ID: <b>WS3A</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b>		
	Site: <b>Sheffield Road, Penistone</b>	www.opusjoynespike.co.uk		
Job No: <b>J-S0099</b>		Start Date: <b>13/02/2009</b>	End Date: <b>13/02/2009</b>	
Drilling Equipment/ Excavation Method: <b>"Premier Compact 120" Tracked Window Sampler Rig</b>	Co-ords:	Backfill Date: <b>13/02/2009</b>	Field Records:	
	Ground Level (mAOD):	Logged: <b>TPW</b>	Chkd: <i>lw</i>	Appr: <i>lw</i>

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Fine to coarse very sandy, fine to coarse very gravelly, high plasticity, dark grey and dark brown, soft, locally very soft, consistency CLAY with a low cobble content. Sand includes much ash. Gravel and cobbles are angular brick, sandstone, fused slag and clinker.								
MADE GROUND: Concrete	0.70							
MADE GROUND: Fine to coarse very sandy, fine to coarse very gravelly, high plasticity, dark grey and dark brown, soft, locally very soft, consistency CLAY with a low cobble content. Sand includes much ash. Gravel and cobbles are angular brick, sandstone, fused slag and clinker.	0.90							
MADE GROUND: COBBLES of red brick and mortar (Probable relict structure)	1.50							
HARD OBSTRUCTION AT 2.00m	2.00							
----- End of Exploratory Hole at 2.00 m								

Remarks: 1. Borehole completed at 2.0m begl after hard obstruction encountered. Relocated approximately 10m to the southwest as WS3B. 2. Borehole backfilled with arisings. 3. No groundwater encountered.	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"> <b>Sample Type Key</b>            D - Disturbed Representative            B - Bulk Representative            S - Spot Non-Representative            W - Water            U - Undisturbed Representative            J - Jar Sample         </td> <td style="width:50%;"> <b>Test Type Key</b>            (C) - Cone SPT            (S) - Spoon SPT            P - Pocket Pentrometer Reading            PID - PID Reading            V - Hand Shear Vane Reading         </td> </tr> </table>	<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading
<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading		
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Exploratory Hole ID: <b>WS3B</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b> www.opusjoynespikes.co.uk							
Job No: <b>J-S0099</b>	Site: <b>Sheffield Road, Penistone</b>	Start Date: <b>13/02/2009</b>	End Date: <b>13/02/2009</b>						
Drilling Equipment/ Excavation Method: "Premier Compact 120" Tracked Window Sampler Rig		Co-ords:	Backfill Date: <b>13/02/2009</b>	Field Records:					
Ground Level (mAOD):		Logged: <b>TPW</b>	Chkd: <i>lw</i>	Appr: <i>lw</i>					
Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details	
MADE GROUND: Fine to coarse very sandy, fine to coarse very gravelly, high plasticity, dark grey and dark brown, soft, locally very soft, consistency CLAY with a low cobble content. Sand includes much ash. Gravel and cobbles are angular brick, sandstone, fused slag and clinker.						N=31(C)			
NO SAMPLE RECOVERY - Cutting shoe blocked by brick cobble.	2.30					N=17(C)			
End of Exploratory Hole at 3.00 m	3.00					N=11(C)			
Remarks:						Sample Type Key		Test Type Key	
1. Borehole abandoned after collapsing back to c. 1.0m begl. 2. Borehole backfilled with arisings. 3. No groundwater encountered. 4. All SPT 'N' values are corrected to an N60 value in accordance with BS 22476 Part 3 and where appropriate extrapolated for partial penetration.						D - Disturbed Representative		(C) - Cone SPT	
						B - Bulk Representative		(S) - Spoon SPT	
						S - Spot Non-Representative		P - Pocket Pentrometer Reading	
						W - Water		PID - PID Reading	
						U - Undisturbed Representative		V - Hand Shear Vane Reading	
						J - Jar Sample			
						Sheet: <b>Sheet 1 of 1</b>			

Exploratory Hole ID: <b>WS4</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b> www.opusjoynespike.co.uk	
Job No: <b>J-S0099</b>	Site: <b>Sheffield Road, Penistone</b>		
Drilling Equipment/ Excavation Method: "Premier Compact 120" Tracked Window Sampler Rig		Start Date: 13/02/2009	End Date: 13/02/2009

Co-ords:	Backfill Date: 13/02/2009	Field Records:
Ground Level (mAOD):	Logged: TPW	Chkd: <i>lw</i> Appr: <i>lw</i>

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
<p>MADE GROUND: Fine to coarse sandy, fine to coarse gravelly, high plasticity, dark brown, soft consistency CLAY with a moderate cobble content. Gravel and cobbles are angular brick and sandstone, and rare fused slag. Gravel also includes angular coal.</p> <p>NB: Limited recovery (&lt;50%) from 1.0-1.6m begl after cutting shoe became blocked by a brick cobble.</p> <p>HARD OBSTRUCTION AT 1.60m</p>				D, J	0.10-0.50	N=11(C)		
				D, J	0.50-1.00			
End of Exploratory Hole at 1.60 m	1.60					N=59(C)		

Remarks:

- Borehole completed at 1.6m begl after hard obstruction encountered. Relocated approximately 15m to the northwest as WS4A.
- Borehole backfilled with arisings.
- No groundwater encountered.
- All SPT 'N' values are corrected to an N60 value in accordance with BS 22476 Part 3 and where appropriate extrapolated for partial penetration.

Sample Type Key	Test Type Key
D - Disturbed Representative	(C) - Cone SPT
B - Bulk Representative	(S) - Spoon SPT
S - Spot Non-Representative	P - Pocket Pentrometer Reading
W - Water	PID - PID Reading
U - Undisturbed Representative	V - Hand Shear Vane Reading
J - Jar Sample	

Exploratory Hole ID:	Client: <b>The Co-operative Group</b>	<h1>OPUS JOYNES PIKE</h1> www.opusjoynespike.co.uk
<b>WS4A</b>	Site: <b>Sheffield Road, Penistone</b>	

Job No:	J-S0099	Start Date:	13/02/2009	End Date:	13/02/2009
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Drilling Equipment/ Excavation Method: "Premier Compact 120" Tracked Window Sampler Rig	Co-ords:	Backfill Date:	13/02/2009	Field Records:
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Ground Level (mAOD):	Logged:	Chkd:	Appr:
	TPW	<i>lw</i>	<i>lw</i>

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
<p>MADE GROUND: Fine to coarse sandy, fine to coarse gravelly, high plasticity, dark brown, soft consistency CLAY with a moderate cobble content. Gravel and cobbles are angular brick and sandstone, and rare fused slag. Gravel also includes angular coal.</p> <p>HARD OBSTRUCTION AT 1.60m</p>	1.60					N=7(C)		
<p>End of Exploratory Hole at 1.60 m</p>								

<b>Remarks:</b> 1. Borehole completed at 1.6m begl after hard obstruction encountered. 2. Borehole backfilled with arisings. 3. No groundwater encountered. 4. All SPT 'N' values are corrected to an N60 value in accordance with BS 22476 Part 3 and where appropriate extrapolated for partial penetration.	<table border="0" style="width:100%;"> <tr> <td style="width:50%;"> <b>Sample Type Key</b>            D - Disturbed Representative            B - Bulk Representative            S - Spot Non-Representative            W - Water            U - Undisturbed Representative            J - Jar Sample         </td> <td style="width:50%;"> <b>Test Type Key</b>            (C) - Cone SPT            (S) - Spoon SPT            P - Pocket Pentrometer Reading            PID - PID Reading            V - Hand Shear Vane Reading         </td> </tr> </table>	<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading
<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading		

Exploratory Hole ID: <b>WS5</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b> www.opusjoynespike.co.uk	
Job No: <b>J-S0099</b>	Site: <b>Sheffield Road, Penistone</b>	Start Date: 13/02/2009	End Date: 13/02/2009
Drilling Equipment/ Excavation Method: "Premier Compact 120" Tracked Window Sampler Rig		Co-ords:	Backfill Date: 13/02/2009
Ground Level (mAOD):		Logged: TPW	Chkd: <i>lw</i> Appr: <i>lw</i>

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Fine to coarse sandy, fine to coarse gravelly, high plasticity, dark grey and dark brown, firm consistency CLAY with a low cobble content. Sand includes much ash. Gravel is angular coal, sandstone, fused slag and brick. Cobbles are angular brick, concrete and sandstone.  HARD OBSTRUCTION AT 1.20m				D, J  D, J	0.10-0.50  0.50-1.00			
End of Exploratory Hole at 1.20 m	1.20							

Remarks: 1. Borehole completed at 1.2m begl after hard obstruction encountered. 2. Borehole backfilled with arisings. 3. No groundwater encountered.	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%;"> <b>Sample Type Key</b>            D - Disturbed Representative            B - Bulk Representative            S - Spot Non-Representative            W - Water            U - Undisturbed Representative            J - Jar Sample         </td> <td style="width:50%;"> <b>Test Type Key</b>            (C) - Cone SPT            (S) - Spoon SPT            P - Pocket Pentrometer Reading            PID - PID Reading            V - Hand Shear Vane Reading         </td> </tr> </table>	<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading
<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading		
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Exploratory Hole ID:	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b>	
WS6	Site: Sheffield Road, Penistone	www.opusjoynespike.co.uk	
Job No: J-S0099		Start Date: 13/02/2009	End Date: 13/02/2009
Drilling Equipment/ Excavation Method: "Premier Compact 120" Tracked Window Sampler Rig	Co-ords:	Backfill Date: 13/02/2009	Field Records:
	Ground Level (mAOD):	Logged: TPW	Chkd: <i>lw</i> Appr: <i>lw</i>

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Fine to coarse sandy, fine to coarse gravelly, high plasticity, dark grey and dark brown, soft, becoming firm consistency CLAY with a low cobble content. Sand includes much ash. Gravel is angular coal, sandstone and brick. Cobbles are angular brick and sandstone.  HARD OBSTRUCTION AT 1.30m				D, J  D, J	0.10-0.50  0.50-1.00	N=12(C)		
End of Exploratory Hole at 1.30 m	1.30							

Remarks: 1. Borehole completed at 1.3m begl after hard obstruction encountered. 2. Borehole backfilled with arisings. 3. No groundwater encountered. 4. All SPT 'N' values are corrected to an N60 value in accordance with BS 22476 Part 3 and where appropriate extrapolated for partial penetration.	Sample Type Key D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	Test Type Key (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading
Sheet: <b>Sheet 1 of 1</b>		

Exploratory Hole ID: <b>WS7</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b>	
	Site: <b>Sheffield Road, Penistone</b>	www.opusjoynespike.co.uk	
Job No: <b>J-S0099</b>		Start Date: <b>13/02/2009</b>	End Date: <b>13/02/2009</b>
Drilling Equipment/ Excavation Method: "Premier Compact 120" Tracked Window Sampler Rig	Co-ords:	Backfill Date: <b>13/02/2009</b>	Field Records:
	Ground Level (mAOD):	Logged: <b>TPW</b>	Chkd: <i>[Signature]</i> Appr: <i>[Signature]</i>

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Silty, fine to coarse sandy, high plasticity, dark grey and black, soft consistency CLAY with many rootlets.				D, J	0.00-0.50			
MADE GROUND: Fine to coarse very sandy, fine to coarse very gravelly, high plasticity, dark grey and dark brown, firm consistency CLAY with a moderate cobble content. Sand includes much ash. Gravel is angular brick, fused slag, concrete and sandstone. Cobbles are angular brick and sandstone. HARD OBSTRUCTION AT 1.50m	0.50			D, J	0.50-1.00	N=30(C)		
End of Exploratory Hole at 1.50 m	1.50							


Remarks: 1. Borehole completed at 1.5m begl after hard obstruction encountered. 2. Borehole backfilled with arisings. 3. No groundwater encountered. 4. All SPT 'N' values are corrected to an N60 value in accordance with BS 22476 Part 3 and where appropriate extrapolated for partial penetration.	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; vertical-align: top;"> <b>Sample Type Key</b>            D - Disturbed Representative            B - Bulk Representative            S - Spot Non-Representative            W - Water            U - Undisturbed Representative            J - Jar Sample         </td> <td style="width:50%; vertical-align: top;"> <b>Test Type Key</b>            (C) - Cone SPT            (S) - Spoon SPT            P - Pocket Pentrometer Reading            PID - PID Reading            V - Hand Shear Vane Reading         </td> </tr> </table>	<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading
<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading		

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Exploratory Hole ID:	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b>	
<b>TP1</b>	Site: <b>Sheffield Road, Penistone</b>	www.opusjoynespike.co.uk	
Job No: <b>J-S0099</b>		Start Date: 02/03/2009	End Date: 02/03/2009
Drilling Equipment/ Excavation Method: JCB 3CX Mechanical Excavator	Co-ords:	Backfill Date: 02/03/2009	Field Records:
	Ground Level (mAOD):	Logged: TPW	Chkd: <i>RW</i> Appr: <i>RW</i>



Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
<p>MADE GROUND: Dark grey and dark brown SAND and GRAVEL with a high cobble and boulder content. Sand includes much ash. Gravel is angular to subrounded fused slag, clinker, brick, concrete, metal and sandstone. Cobbles are angular to subrounded brick, concrete, fused slag and sandstone masonry. (Reconstituted Ground)</p> <p>Angular boulders of sandstone masonry, concrete and brickwork (e.g. sections of partially intact demolished walls) becoming common after approximately 1.2m begl.</p>	4.60							
End of Exploratory Hole at 4.60 m								

Remarks: 1) Trial pit completed at 4.60m after repeated collapse. 2) Trial pit backfilled with arisings. However, large boulders separated from soil matrix and left at surface to aid proposed later cable percussion drilling. 3) No groundwater encountered. 4) Trial pit unstable.	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; vertical-align: top;"> <b>Sample Type Key</b>            D - Disturbed Representative            B - Bulk Representative            S - Spot Non-Representative            W - Water            U - Undisturbed Representative            J - Jar Sample         </td> <td style="width:50%; vertical-align: top;"> <b>Test Type Key</b>            (C) - Cone SPT            (S) - Spoon SPT            P - Pocket Pentrometer Reading            PID - PID Reading            V - Hand Shear Vane Reading         </td> </tr> </table>	<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading
<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading		
Sheet: <span style="margin-left: 100px;">Sheet 1 of 1</span>			

Exploratory Hole ID: <b>TP2</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b> www.opusjoynespike.co.uk	
Job No: <b>J-S0099</b>	Site: <b>Sheffield Road, Penistone</b>	Start Date: 02/03/2009	End Date: 02/03/2009
Drilling Equipment/ Excavation Method: <b>JCB 3CX Mechanical Excavator</b>	Co-ords.	Backfill Date: 02/03/2009	Field Records:
Ground Level (mAOD):		Logged: <b>TPW</b>	Chkd: <i>lw</i> Appr: <i>lw</i>

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Dark grey SAND and GRAVEL with a high cobble content. Sand includes much ash. Gravel is angular to subrounded brick, fused slag, sandstone, concrete, glass, metal and clinker. Cobbles are angular to subrounded brick, concrete, sandstone masonry and fused slag. (Reconstituted Ground)	2.00						1.50	
MADE GROUND: General demolition rubble, predominantly comprising red brick in a matrix of sand and gravel derived from same, and also including fragments of clay pipe, metal pipes, and wire. (Reconstituted Ground)	3.50							
End of Exploratory Hole at 3.50 m								




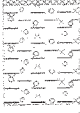

Remarks: 1) Trial pit completed at 3.50m begl after very hard ground (possibly a buried slab) encountered. 2) Trial pit backfilled with arisings. 3) Slow, continuous inflow of perched groundwater in eastern end of trench at approximately 1.50m depth. 4) Trial pit fairly stable.	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; border-right: 1px dashed black;"> <b>Sample Type Key</b>            D - Disturbed Representative            B - Bulk Representative            S - Spot Non-Representative            W - Water            U - Undisturbed Representative            J - Jar Sample         </td> <td style="width:50%;"> <b>Test Type Key</b>            (C) - Cone SPT            (S) - Spoon SPT            P - Pocket Pentrometer Reading            PID - PID Reading            V - Hand Shear Vane Reading         </td> </tr> </table>	<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading
<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading		

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Exploratory Hole ID: <b>TP3</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b> www.opusjoynespikes.co.uk	
Job No: <b>J-S0099</b>	Site: <b>Sheffield Road, Penistone</b>	Start Date: <b>02/03/2009</b>	End Date: <b>02/03/2009</b>
Drilling Equipment/ Excavation Method: <b>JCB 3CX Mechanical Excavator</b>		Co-ords:	Backfill Date: <b>02/03/2009</b>
Ground Level (mAOD):		Logged: <b>TPW</b>	Chkd: <i>lw</i> Appr: <i>lw</i>



  

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Dark grey and black SAND and GRAVEL with high cobble content. Sand includes much ash. Gravel is angular to subrounded fused slag, clinker, brick, concrete and sandstone. Cobbles are angular brick, fused slag and sandstone masonry. (Reconstituted Ground)				B	0.10-0.50			
MADE GROUND: Silty, fine to coarse sandy, fine to coarse gravelly, high plasticity, dark grey, grey, orange and orange-brown, soft consistency CLAY with low cobble content. Gravel is angular coal, mudstone and rare brick. Cobbles are tabular sandstone. (Reconstituted Ground)	2.60			B	2.60-2.80		2.60	
	2.80			B	2.90-3.20		3.10	
Silty, fine to coarse slightly gravelly, high plasticity, dark grey mottled black, stiff consistency CLAY with low cobble content. Gravel is angular coal, mudstone and sandstone. Cobbles are tabular sandstone. (Glacial Till)	3.20							
End of Exploratory Hole at 3.20 m								

Remarks: 1) Trial pit completed at 3.20m begl following partial collapse. 2) Trial pit backfilled with arisings. 3) Moderate inflow of perched groundwater at 2.60m begl. Groundwater at collapse of the pit was approximately 3.10m begl. 4) Trial pit unstable.	<table style="width:100%; border: none;"> <tr> <td style="border: none;">Sample Type Key</td> <td style="border: none;">Test Type Key</td> </tr> <tr> <td style="border: none;">D - Disturbed Representative</td> <td style="border: none;">(C) - Cone SPT</td> </tr> <tr> <td style="border: none;">B - Bulk Representative</td> <td style="border: none;">(S) - Spoon SPT</td> </tr> <tr> <td style="border: none;">S - Spot Non-Representative</td> <td style="border: none;">P - Pocket Penetrometer Reading</td> </tr> <tr> <td style="border: none;">W - Water</td> <td style="border: none;">PID - PID Reading</td> </tr> <tr> <td style="border: none;">U - Undisturbed Representative</td> <td style="border: none;">V - Hand Shear Vane Reading</td> </tr> <tr> <td style="border: none;">J - Jar Sample</td> <td style="border: none;"></td> </tr> </table>	Sample Type Key	Test Type Key	D - Disturbed Representative	(C) - Cone SPT	B - Bulk Representative	(S) - Spoon SPT	S - Spot Non-Representative	P - Pocket Penetrometer Reading	W - Water	PID - PID Reading	U - Undisturbed Representative	V - Hand Shear Vane Reading	J - Jar Sample	
Sample Type Key	Test Type Key														
D - Disturbed Representative	(C) - Cone SPT														
B - Bulk Representative	(S) - Spoon SPT														
S - Spot Non-Representative	P - Pocket Penetrometer Reading														
W - Water	PID - PID Reading														
U - Undisturbed Representative	V - Hand Shear Vane Reading														
J - Jar Sample															

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Exploratory Hole ID:  <b>TP4</b>	Client: <b>The Co-operative Group</b>  Site: <b>Sheffield Road, Penistone</b>	<b>OPUS JOYNES PIKE</b>  www.opusjoynespike.co.uk							
Job No: <b>J-S0099</b>		Start Date: <b>02/03/2009</b>	End Date: <b>02/03/2009</b>						
Drilling Equipment/ Excavation Method: <b>JCB 3CX Mechanical Excavator</b>	Co-ords:	Backfill Date: <b>02/03/2009</b>	Field Records:						
	Ground Level (mAOD):	Logged: <b>TPW</b>	Chkd: <i>hw</i> Appr: <i>hw</i>						
Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details	
MADE GROUND: Dark grey and black SAND and GRAVEL with high cobble content. Sand includes much ash. Gravel is angular to subrounded fused slag, clinker, brick, concrete, glass, metal and sandstone. Cobbles are angular brick, fused slag and sandstone masonry. (Reconstituted Ground)	1.90						1.90		
Fine to coarse very sandy, fine to coarse very gravelly, high plasticity, brown, locally mottled black, grey or orange, stiff consistency CLAY with a high cobble content. Gravel and cobbles are angular mudstone and sandstone. (Glacial Till)	3.70			B	2.10-2.50				
End of Exploratory Hole at 3.70 m									
Remarks: 1) Trial pit completed at 3.70m begl following partial collapse. 2) Trial pit backfilled with arisings. 3) Slight seepage of perched groundwater at 1.90m begl. Seepage stopped after approximately 10 minutes. 4) Trial pit unstable.				Sample Type Key D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample		Test Type Key (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading			
				Sheet:		Sheet 1 of 1			

Exploratory Hole ID: <b>TP5</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b>  www.opusjoynespike.co.uk	
Job No: <b>J-S0099</b>	Site: <b>Sheffield Road, Penistone</b>	Start Date: <b>02/03/2009</b>	End Date: <b>02/03/2009</b>
Drilling Equipment/ Excavation Method: <b>JCB 3CX Mechanical Excavator</b>	Co-ords:	Backfill Date: <b>02/03/2009</b>	Field Records:
Ground Level (mAOD):		Logged: <b>TPW</b>	Chkd: <i>lw</i> Appr: <i>lw</i>


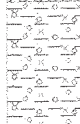
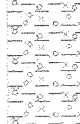
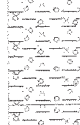

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
<p><b>MADE GROUND:</b> Dark grey and black SAND and GRAVEL with high cobble content. Sand includes much ash. Gravel is angular to subrounded fused slag, clinker, brick, concrete, glass, metal and sandstone. Cobbles are angular brick, fused slag and sandstone masonry. (Reconstituted Ground)</p> <p>Concrete slab at 1.20m depth in northern end of trial pit. Trial pit extended southwards.</p>			[Cross-hatch pattern]				1.60	
<p><b>MADE GROUND:</b> Fine to coarse gravelly, fine to coarse red SAND with a medium cobble content, becoming high cobble content with increasing depth. Gravel and cobbles are tabular, red (locally yellow-green after approximately 3.0m), medium and coarse-grained sandstone. (Reconstituted Ground)</p>	2.00		[Cross-hatch pattern]	B	2.20-2.50			
End of Exploratory Hole at 3.50 m	3.50							

<b>Remarks:</b> 1) Trial pit completed at 3.50m begl following partial collapse. 2) Trial pit backfilled with arisings. 3) Moderate, continuous inflow of perched groundwater at 1.60m begl. 4) Trial pit unstable.	<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; vertical-align: top;"> <b>Sample Type Key</b>            D - Disturbed Representative            B - Bulk Representative            S - Spot Non-Representative            W - Water            U - Undisturbed Representative            J - Jar Sample         </td> <td style="width:50%; vertical-align: top;"> <b>Test Type Key</b>            (C) - Cone SPT            (S) - Spoon SPT            P - Pocket Pentrometer Reading            PID - PID Reading            V - Hand Shear Vane Reading         </td> </tr> </table>	<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading
<b>Sample Type Key</b> D - Disturbed Representative B - Bulk Representative S - Spot Non-Representative W - Water U - Undisturbed Representative J - Jar Sample	<b>Test Type Key</b> (C) - Cone SPT (S) - Spoon SPT P - Pocket Pentrometer Reading PID - PID Reading V - Hand Shear Vane Reading		
Sheet: <b>Sheet 1 of 1</b>			

Exploratory Hole ID: <b>TP6</b>	Client: <b>The Co-operative Group</b>	<b>OPUS JOYNES PIKE</b>  www.opusjoynespike.co.uk		
Job No: <b>J-S0099</b>	Site: <b>Sheffield Road, Penistone</b>	Start Date: <b>02/03/2009</b>	End Date: <b>02/03/2009</b>	
Drilling Equipment/ Excavation Method: <b>JCB 3CX Mechanical Excavator</b>	Co-ords:	Backfill Date: <b>02/03/2009</b>	Field Records:	
Ground Level (mAOD):		Logged: <b>TPW</b>	Chkd: <i>lw</i>	Appr: <i>hw</i>

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Dark grey and black SAND and GRAVEL with high cobble content. Sand includes much ash. Gravel is angular to subrounded fused slag, clinker, brick, concrete, glass, metal and sandstone. Cobbles are angular brick, fused slag and sandstone masonry. (Reconstituted Ground)								
Fine to coarse sandy, fine to coarse gravelly, high plasticity, pale brown and pale grey, locally mottled black and orange, stiff consistency CLAY with a medium cobble content. Gravel is tabular mudstone and sandstone, and angular coal. Cobbles are tabular mudstone and sandstone. (Glacial Till)	1.50			B	1.80-2.20			
				D	2.20-2.50			
Fine and coarse sandy, fine to coarse gravelly, low plasticity, pale brown and yellow-brown mottled black and dark brown, stiff to very stiff consistency CLAY with a high cobble content. Gravel and cobbles are weak pale grey mudstone, with numerous fossilised plant remains, and coal. (Lower Coal Measures)	3.00							
	3.30							
----- End of Exploratory Hole at 3.30 m								

Remarks: 1) Trial pit completed at 3.30m. 2) Trial pit backfilled with arisings. 3) No groundwater encountered. 4) Trial pit stable.	<table style="width:100%; border: none;"> <tr> <td style="border: none;">Sample Type Key</td> <td style="border: none;">Test Type Key</td> </tr> <tr> <td style="border: none;">D - Disturbed Representative</td> <td style="border: none;">(C) - Cone SPT</td> </tr> <tr> <td style="border: none;">B - Bulk Representative</td> <td style="border: none;">(S) - Spoon SPT</td> </tr> <tr> <td style="border: none;">S - Spot Non-Representative</td> <td style="border: none;">P - Pocket Pentrometer Reading</td> </tr> <tr> <td style="border: none;">W - Water</td> <td style="border: none;">PID - PID Reading</td> </tr> <tr> <td style="border: none;">U - Undisturbed Representative</td> <td style="border: none;">V - Hand Shear Vane Reading</td> </tr> <tr> <td style="border: none;">J - Jar Sample</td> <td style="border: none;"></td> </tr> </table>	Sample Type Key	Test Type Key	D - Disturbed Representative	(C) - Cone SPT	B - Bulk Representative	(S) - Spoon SPT	S - Spot Non-Representative	P - Pocket Pentrometer Reading	W - Water	PID - PID Reading	U - Undisturbed Representative	V - Hand Shear Vane Reading	J - Jar Sample	
Sample Type Key	Test Type Key														
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Sheet: <b>Sheet 1 of 1</b>															