

































<div><div>Sutcliffe</div><div>Sutcliffe Investigations</div></div>						Site Kingsway Tunnel Approach		Number WS101	
Excavation Method Drive-in Windowless Sampler		Dimensions		Ground Level (mOD)		Client Merseytravel		Job Number 30015LG	
		Location		Dates 15/01/2019		Engineer AT		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
1.20-1.65	SPT N=6		2,1/2,2,1,1		(0.20)	MADE GROUND (macadam and graded granular limestone gravel)		▽1	
					(0.40)	MADE GROUND (light brown fine to coarse grained SAND and graded granular limestone subbase)			
			Water strike(1) at 0.60m, fell to 1.85m in 20 mins.		0.60	Firm grey slightly silty slightly sandy gravelly CLAY. Sand is fine Gravel is fine subrounded to subangular and of mixed lithology			
					(0.80)				
1.20-1.65	SPT N=6		2,1/2,2,1,1		1.40	Very stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology			▽1
2.00-2.45	SPT N=26		3,3/6,6,6,8						
3.00-3.45	SPT N=31		4,6/6,8,8,9						
4.00-4.45	SPT N=21		5,5/5,5,5,6		(4.05)				
5.00-5.45	SPT N=18		3,3/4,4,5,5						
					5.45	Complete at 5.45m			
<div>Remarks</div> <div>Partial recovery from 2.00m to 3.00m</div> <div>Minimal recovery from 4.00m to 5.00m</div> <div>Perched water at 0.60m</div>							Scale (approx)	Logged By	
							1:50	AT	
							Figure No. 30015LG.WS101		

 <b>Sutcliffe Investigations</b>						<b>Site</b> Kingsway Tunnel Approach		<b>Number</b> <b>WS102</b>
<b>Excavation Method</b> Drive-in Windowless Sampler		<b>Dimensions</b>		<b>Ground Level (mOD)</b>		<b>Client</b> Merseytravel		<b>Job Number</b> 30015LG
		<b>Location</b>		<b>Dates</b> 15/01/2019		<b>Engineer</b> AT		<b>Sheet</b> 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.20-1.65	SPT N=8	1,1/2,2,2,2			(0.15)	MADE GROUND (macadam and graded granular limestone gravel)		
					(0.45)			
2.00-2.45	SPT N=7	1,2/2,1,2,2			0.60	MADE GROUND (graded granular limestone subbase)		
					(1.80)			
3.00-3.45	SPT N=11	2,3/2,3,3,3			2.40	MADE GROUND (dark brown grey slightly sandy slightly gravelly CLAY with occasional cobbles. Gravel is fine subangular and of mixed lithology)		
					(0.60)			
4.00-4.45	SPT N=13	2,3/2,3,3,3			3.00	MADE GROUND (brown and black mottled sandy slightly gravelly CLAY. Sand is fine to medium Gravel is fine subangular and of mixed lithology)		
					(1.10)			
5.00-5.45	SPT N=19	2,3/2,3,3,3,4			4.10	Stiff brown sandy gravelly CLAY with some silty pockets. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology		
					(1.35)			
					5.45	Very stiff red brown slightly sandy CLAY with fine to medium grained sand bands. Sand is fine		
						Complete at 5.45m		
<b>Remarks</b>							<b>Scale (approx)</b> 1:50	<b>Logged By</b> AT
							<b>Figure No.</b> 30015LG.WS102	

<div><div>Sutcliffe</div><div>Sutcliffe Investigations</div></div>						Site Kingsway Tunnel Approach		Number WS103	
Excavation Method Drive-in Windowless Sampler		Dimensions		Ground Level (mOD)		Client Merseytravel		Job Number 30015LG	
		Location		Dates 15/01/2019		Engineer AT		Sheet 1/1	
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	
1.20-1.65	SPT N=25		3,4/6,6,6,7		(0.15) 0.15 (0.25) 0.40	MADE GROUND (macadam and graded granular limestone gravel)			
						MADE GROUND (light brown fine to coarse grained SAND and graded granular limestone subbase)			
						Very stiff brown sandy gravelly CLAY with occasional orange brown fine to medium grained sand bands. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology			
									
									
2.00-2.45	SPT N=27		4,4/6,6,7,8						
3.00-3.45	SPT N=33		4,6/8,8,8,9		(5.05)				
4.00-4.45	SPT N=28		Water strike(1) at 4.00m, no rise after 20 mins. 4,5/6,6,8,8						
5.00-5.45	SPT N=29		5,6/7,7,7,8		5.45	Complete at 5.45m			
Remarks							Scale (approx) 1:50	Logged By AT	
							Figure No. 30015LG.WS103		

 <b>Sutcliffe Investigations</b>						<b>Site</b> Kingsway Tunnel Approach		<b>Number</b> <b>WS104</b>
<b>Excavation Method</b> Drive-in Windowless Sampler		<b>Dimensions</b>		<b>Ground Level (mOD)</b>		<b>Client</b> Merseytravel		<b>Job Number</b> 30015LG
		<b>Location</b>		<b>Dates</b> 15/01/2019		<b>Engineer</b> AT		<b>Sheet</b> 1/1
Depth (m)	Sample / Tests	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
1.20-1.65	SPT N=12		2,3/3,2,3,4		(0.15) 0.15	MADE GROUND (macadam and graded granular limestone gravel)		
					(0.55)	MADE GROUND (light brown fine to coarse grained SAND and graded granular limestone subbase)		
					0.70 (0.30)	MADE GROUND (red brown fine to medium grained SAND)		
					1.00	Very stiff brown slightly sandy gravelly CLAY with subangular cobbles. Sand is fine Gravel is fine to medium subangular to subrounded and of mixed lithology		
2.00-2.45	SPT N=21		2,4/5,5,5,6					
3.00-3.45	SPT N=30		8,8/7,7,8,8		(4.45)			
4.00-4.45	SPT N=22		Water strike(1) at 4.00m, no rise after 20 mins. 4,5/5,5,6,6			Large cobble at 3.50m		▼1
5.00-5.45	SPT N=23		3,4/5,5,6,7		5.45	Complete at 5.45m		
								
<b>Remarks</b>							<b>Scale (approx)</b> 1:50	<b>Logged By</b> AT
							<b>Figure No.</b> 30015LG.WS104	