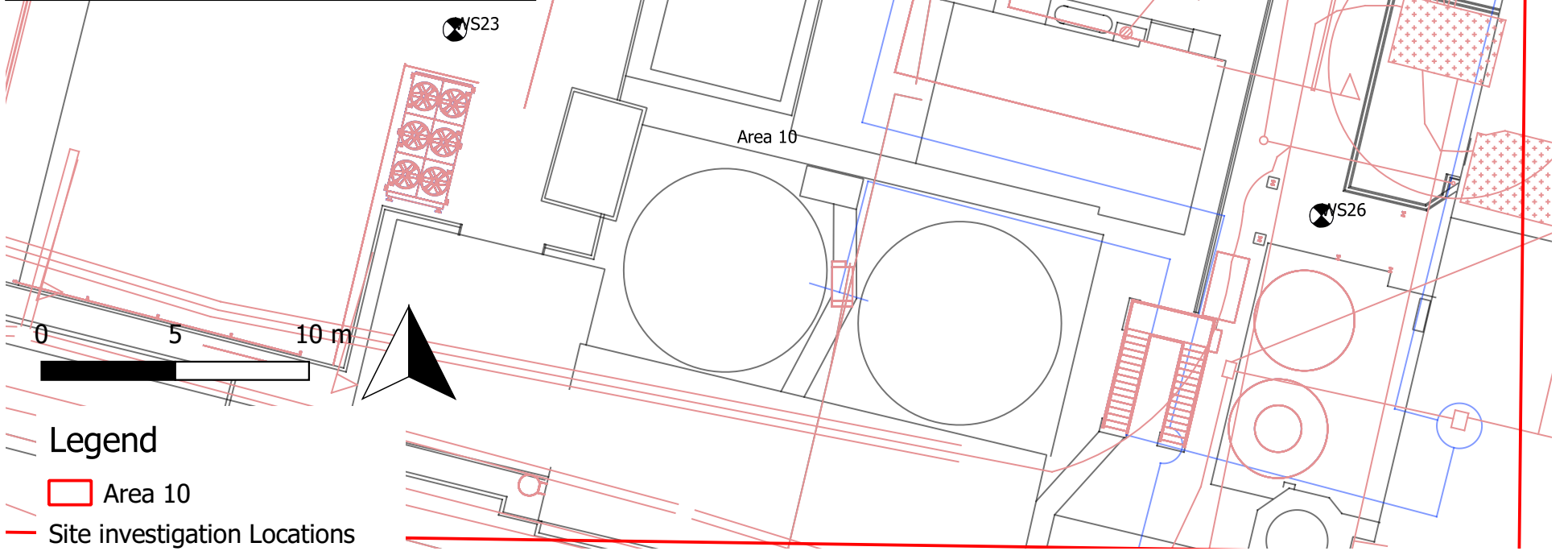
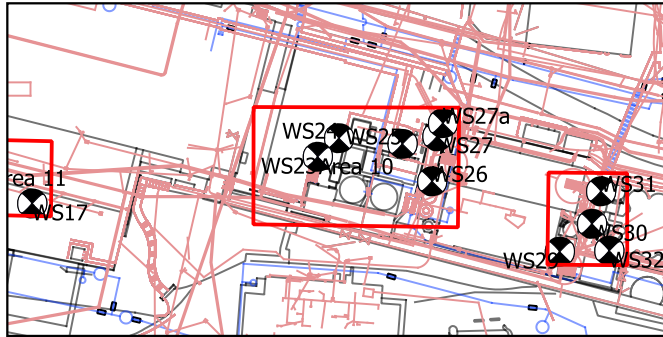


Legend

- Area 9
- Site investigation Locations
- HP
- WS
- Service Plan 1 (Sitem12a)
- Service Plan 2 (Sitem16a)



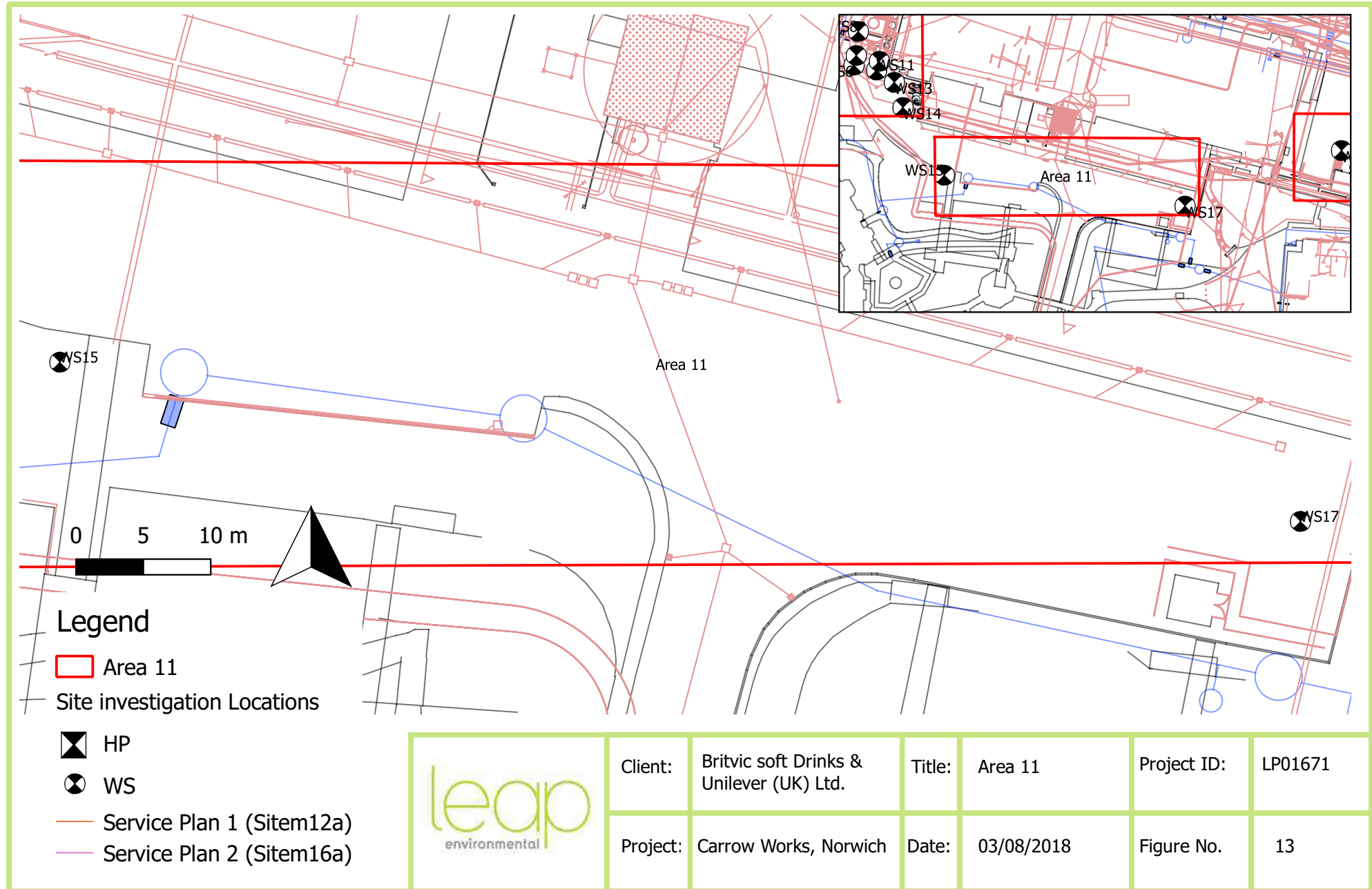
Client:	Britvic soft Drinks & Unilever (UK) Ltd.	Title:	Area 9	Project ID:	LP01671
Project:	Carrow Works, Norwich	Date:	03/08/2018	Figure No.	11



Legend

- Area 10
- Site investigation Locations
- HP
- WS
- Service Plan 1 (Sitem12a)
- Service Plan 2 (Sitem16a)

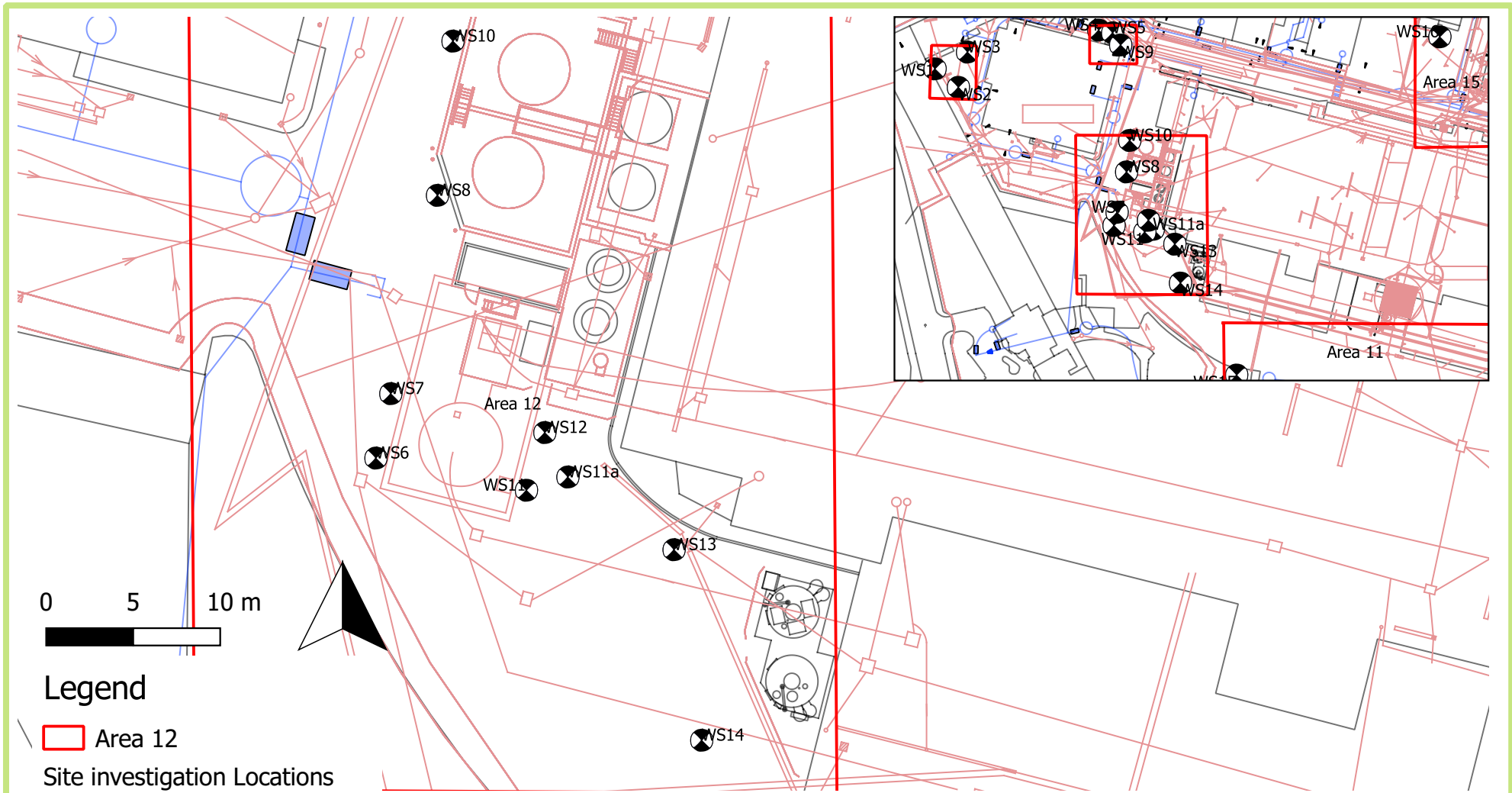
	Client:	Britvic soft Drinks & Unilever (UK) Ltd.	Title:	Area 10	Project ID:	LP01671
	Project:	Carrow Works, Norwich	Date:	03/08/2018	Figure No.	12



Legend

- Area 11
- Site investigation Locations
- HP
- WS
- Service Plan 1 (Sitem12a)
- Service Plan 2 (Sitem16a)

	Client:	Britvic soft Drinks & Unilever (UK) Ltd.	Title:	Area 11	Project ID:	LP01671
	Project:	Carrow Works, Norwich	Date:	03/08/2018	Figure No.	13



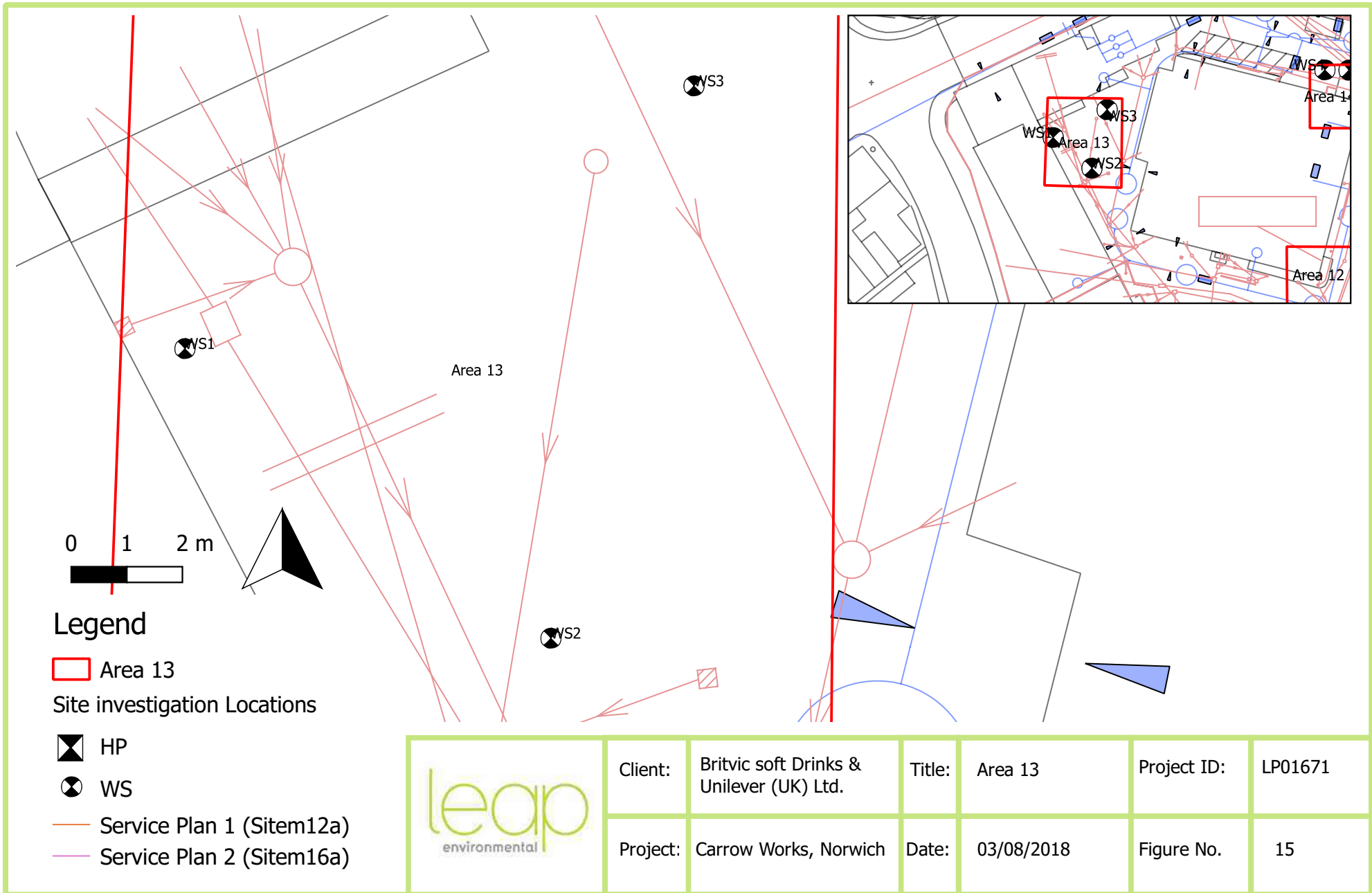
Legend

Area 12
 Site investigation Locations

- HP
- WS
- Service Plan 1 (Sitem12a)
- Service Plan 2 (Sitem12a)



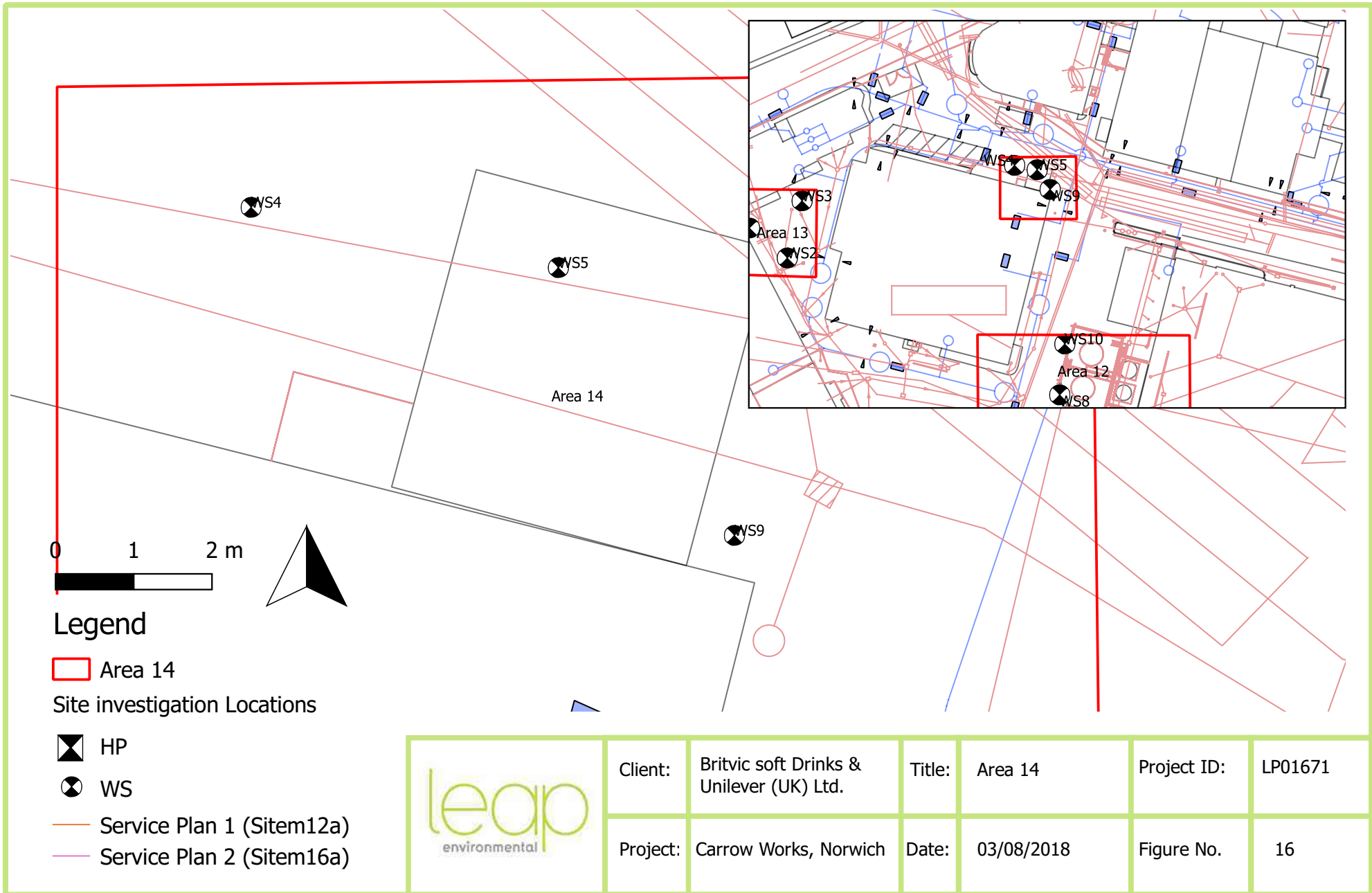
Client:	Britvic soft Drinks & Unilever (UK) Ltd.	Title:	Area 12	Project ID:	LP01671
Project:	Carrow Works, Norwich	Date:	03/08/2018	Figure No.	14



Legend

- Area 13
- Site investigation Locations
- HP
- WS
- Service Plan 1 (Sitem12a)
- Service Plan 2 (Sitem16a)

	Client:	Britvic soft Drinks & Unilever (UK) Ltd.	Title:	Area 13	Project ID:	LP01671
	Project:	Carrow Works, Norwich	Date:	03/08/2018	Figure No.	15



0 1 2 m



Legend

Area 14

Site investigation Locations

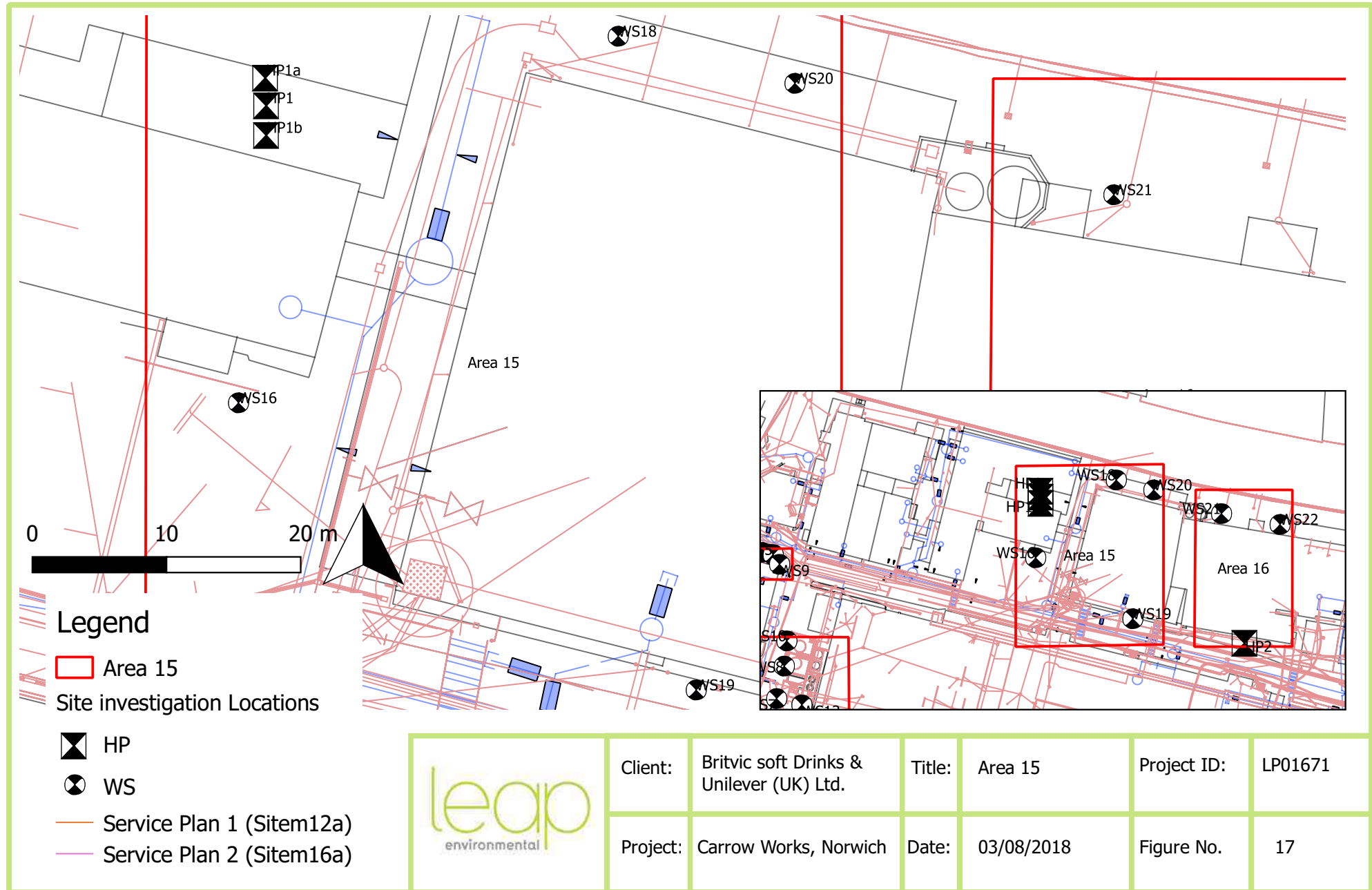
 HP

 WS

— Service Plan 1 (Sitem12a)

— Service Plan 2 (Sitem16a)

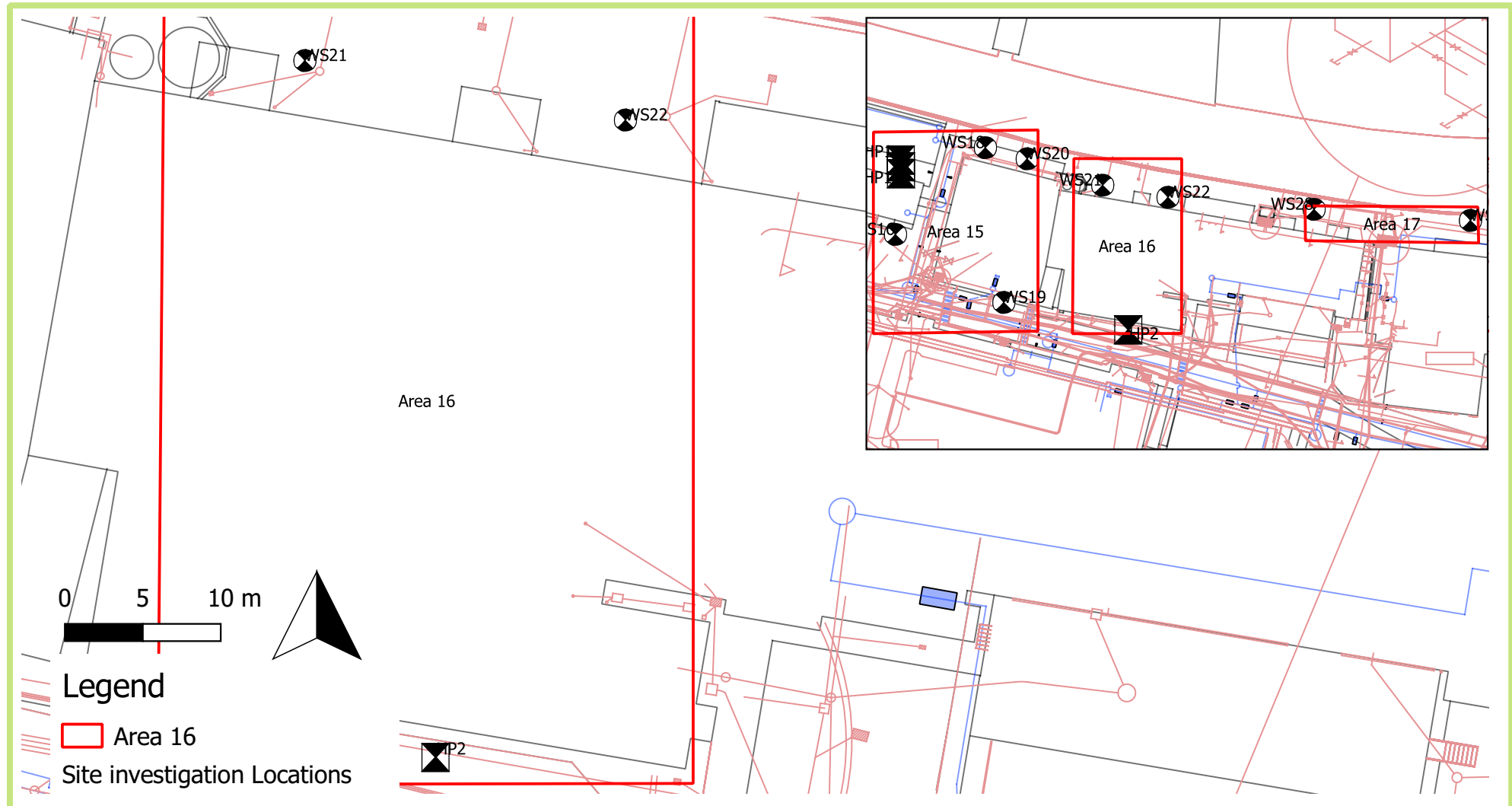
	Client:	Britvic soft Drinks & Unilever (UK) Ltd.	Title:	Area 14	Project ID:	LP01671
	Project:	Carrow Works, Norwich	Date:	03/08/2018	Figure No.	16



- Legend**
- Area 15
 - Site investigation Locations
 - HP
 - WS
 - Service Plan 1 (Sitem12a)
 - Service Plan 2 (Sitem16a)



Client:	Britvic soft Drinks & Unilever (UK) Ltd.	Title:	Area 15	Project ID:	LP01671
Project:	Carrow Works, Norwich	Date:	03/08/2018	Figure No.	17



0 5 10 m



Legend

Area 16

Site investigation Locations

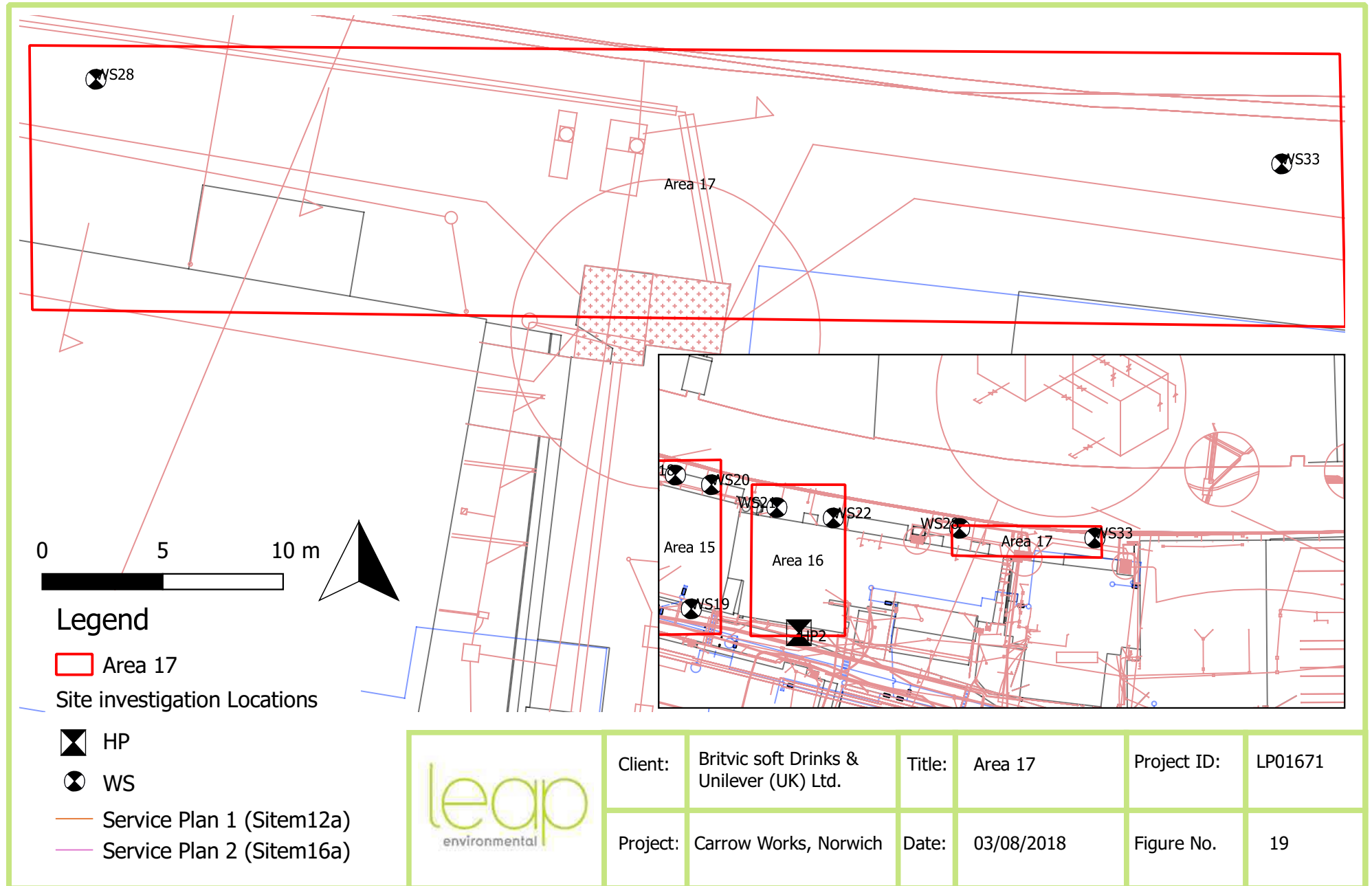
HP

WS

Service Plan 1 (Sitem12a)

Service Plan 2 (Sitem16a)

	Client:	Britvic soft Drinks & Unilever (UK) Ltd.	Title:	Area 16	Project ID:	LP01671
	Project:	Carrow Works, Norwich	Date:	03/08/2018	Figure No.	18



Client:	Britvic soft Drinks & Unilever (UK) Ltd.	Title:	Area 17	Project ID:	LP01671
Project:	Carrow Works, Norwich	Date:	03/08/2018	Figure No.	19

APPENDIX C – SITE PHOTOGRAPHS

Site Photographs



Plate 1: Turf over brown sandy topsoil at HP6, Area 8.



Plate 2: Thick concrete pipe at 0.6m at HP6, Area 8.



Plate 3: Made ground over natural chalk at WS4, Area 14.



Plate 4: Very thick concrete at WS27, Area 10.



Plate 5: Very shallow natural weathered structureless chalk below 0.53m at WS15, Area 11.



Plate 6: Dark brown fibrous peat from 2.3-3.6m at WS38, Area 1.



Plate 7: Heras fencing bordering off drilling work in Area 4.



Plate 8: Very shallow groundwater below 0.8m at WS24, Area 10.



Plate 9: Black patch with a strong hydrocarbon odour between 1.40-1.90m at WS19, Area 15.



Plate 10: Black, bright, plastic-like fragment with a weak hydrocarbon odour at 0.60m at HP2, Area 16.



Plate 11: Concrete obstruction at 0.4m at HP1, Area 15.

APPENDIX D – TRIAL HOLE AND BOREHOLE LOGS

**Trial Hole and
Borehole Logs**



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Borehole Log

Borehole No.

WS1

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type HA
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:10
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.05		MADE GROUND: Blacktop	
		0.20 - 0.30	ES				MADE GROUND: Dark brown to black sandy clayey GRAVEL of fine to coarse, angular to rounded brick, flint, concrete, blacktop and natural stone gravel, with occasional cobbles of sub-angular brick. Strong sewerage odour noted in the soil. <i>Recovered as moist below 0.20m.</i>	
					0.60		End of borehole at 0.60 m	

Remarks
Borehole remained dry and stable. Flat metal surface obstruction at 0.60m with no further progress. Hole terminated at 0.60m and backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS1a

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10	ES		0.05		MADE GROUND: Blacktop	
					0.20		MADE GROUND: Dark brown to black sandy clayey GRAVEL of fine to coarse, angular to rounded brick, flint, concrete, blacktop fragments and natural stone, with occasional cobbles of sub-angular brick. Strong sewerage odour noted in the soil.	
		1.00	ES		1.60		MADE GROUND: Brown very sandy clayey GRAVEL of fine to coarse, angular to rounded flint, chalk, brick and natural stone.	
				White to off-white and brown structureless CHALK with patches of silty sand and occasional gravels of fine to coarse angular to rounded flint. Slight hydrocarbon odour. (possible re-worked Chalk)				
		3.00	ES					
							Recovered as moist below 3.70m.	
							Continued on next sheet	

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS1a

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					5.00			
								End of borehole at 5.00 m

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS2

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.05			MADE GROUND: Blacktop
		0.30	ES		0.30			MADE GROUND: Dark brown to black sandy clayey GRAVEL of fine to coarse, angular to rounded brick, flint, concrete, blacktop fragments and natural stone, with occasional cobbles of sub-angular brick.
		0.80	ES					MADE GROUND: Brown very sandy clayey GRAVEL of fine to coarse, angular to rounded flint, chalk, brick and natural stone.
					1.20			White to yellow and brown structureless CHALK with patches of silty sand and occasional gravels of fine to coarse, angular to rounded flint. (possible re-worked Chalk)
								<i>Recovered as moist below 2.10m.</i>
								Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS2

Sheet 2 of 2

Project Name: Carrow Works, Norwich

Project No.
LP01671

Co-ords: -

Hole Type
WS

Location: Carrow Works, Bracondale, Norwich NR1 2DD

Level:

Scale
1:20

Client: Britvic Soft Drinks Ltd and Unilever (UK)

Dates: 21/08/2018 - 21/08/2018

Logged By
EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					5.00				5
									6
									7
									8

End of borehole at 5.00 m

Remarks

Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS3

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.10		MADE GROUND: Blacktop	
		0.20	ES		0.30		MADE GROUND: Dark brown to black sandy clayey GRAVEL of fine to coarse, angular to rounded brick, flint, concrete, blacktop and natural stone, with occasional cobbles of sub-angular brick.	
		0.80	ES				White to yellow and brown structureless CHALK with patches of silty sand and occasional gravels of fine to coarse angular to rounded flint. (possible re-worked Chalk)	
							Very flint gravelly between 2.80-3.20m.	
								Continued on next sheet

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS3

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					5.00		Recovered as moist below 4.20m.		
							End of borehole at 5.00 m		5
									6
									7
									8

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS4

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.08		MADE GROUND: Blacktop		
		0.15 - 0.50	ES		0.50		MADE GROUND: Mid-brown slightly silty SAND with fine to coarse brick, blacktop, flint and shell gravel.		
					1.15		MADE GROUND: Light brown to grey clayey SAND with chalk, rare brick, concrete and blacktop gravel.	1	
		1.15 - 1.75	ES		1.75		Off-white to cream structureless CHALK with grey sandy clay inclusions with rare brick and flint gravel. (possible re-worked chalk)		
					2.70		Off-white structureless CHALK with rare flint gravels.	2	
					3.00		Off-white clayey sandy GRAVEL of fine to coarse sub-angular chalk with brown fine to medium sand and occasional rounded fine to medium flint.	3	
							White to off-white structureless CHALK, recovered as putty chalk with fine to coarse angular to sub-angular chalk, and rare angular to rounded flint gravel, with occasional patches of pale brown sandy infill, recovered as wet. (possible re-worked chalk).		
							<i>Becoming moist below 3.40m.</i>		
								4	

Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS4

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					5.00			
								End of borehole at 5.00 m

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS5

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.15 - 0.43	ES		0.15			MADE GROUND: Concrete
					0.43			MADE GROUND: Light brown to grey slightly gravelly clayey SAND with fine to coarse angular to sub-angular chalk, brick and very rare blacktop gravel.
								MADE GROUND: Light brown to grey slightly clayey SAND with sub-angular chalk, angular to rounded flint and very rare angular blacktop gravel.
					1.00			MADE GROUND: Off-white structureless CHALK with significant quantities of slightly clayey mid-brown sand. (possible re-worked Chalk with Head)
				4.00				Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS5

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		4.90 - 5.00	ES		5.00		White to off-white structureless CHALK, recovered as putty chalk with fine to coarse angular to sub-angular chalk, and rare angular to rounded flint gravel, with occasional patches of pale brown sandy infill, recovered as moist. (possible re-worked chalk)		
							<i>Orange / yellow streaking between 4.80-4.85m.</i>		
							End of borehole at 5.00 m	5	
								6	
								7	
								8	

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS7

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type HA
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:10
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/08/2018 - 24/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Brick paving.	
					0.10		MADE GROUND: Black to dark grey gravelly coarse SAND with fine to coarse, angular to rounded flint and concrete gravel.	
					0.20			
							MADE GROUND: Brown, grey and white speckled gravelly medium to coarse SAND with fine to coarse, angular to rounded gravel.	
		0.70	ES		0.70		End of borehole at 0.70 m	

Remarks
 Borehole remained dry and stable. Thick concrete obstruction at 0.70m. Hole terminated at 0.70m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS8

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete.	1 2 3 4
		0.30	ES		0.20		MADE GROUND: Dark grey to black sandy GRAVEL of fine to coarse, angular to rounded flint, natural stone and occasional concrete.	
		0.80	ES		0.50		MADE GROUND: Pale brown and grey gravelly medium to coarse SAND of fine to coarse, occasionally cobble, angular to rounded flint.	
					1.10		White to brown structureless CHALK, recovered as putty chalk with gravel of fine to coarse sub-angular chalk, and very rare fine to medium, angular to rounded flint, with patches of pale brown sandy infill, recovered as moist. (possible re-worked Chalk)	

Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS8

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		4.20	ES				Dark grey/blue/black colour in chalk, with a weak hydrocarbon odour.	
				5.00			End of borehole at 5.00 m	

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS9

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.17 - 0.50	ES		0.17		MADE GROUND: Concrete		
					1.00		MADE GROUND: Brown clayey SAND with chalk, concrete, rare , coarse, rounded flint and occasional brick gravel, occasional concrete cobbles.		
		2.55 - 2.85	ES		1.90		MADE GROUND: Off-white to cream structureless CHALK with clayey brown sand and rare flint gravel.	1	
					2.55		MADE GROUND: White to off-white structureless CHALK, recovered as putty chalk with fine to coarse angular to sub-angular chalk, and rare angular to rounded flint gravel, with occasional patches of pale brown sandy infill, recovered as wet. (possible re-worked chalk)	2	
					2.85		MADE GROUND: Brown clayey medium to coarse SAND with rare fine to medium angular to rounded flint gravel.	3	
		White to off-white structureless CHALK, recovered as putty chalk with fine to coarse angular to sub-angular chalk, and rare angular to rounded flint gravel, with occasional patches of pale brown sandy infill, recovered as wet. (possible re-worked chalk)							

Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS9

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		4.90 - 5.00	ES		5.00			
							End of borehole at 5.00 m	

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS10

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.15		MADE GROUND: Concrete.	
		0.30	ES				MADE GROUND: Grey to light brown soft sandy CLAY with rare coarse sub-angular to sub-rounded flint and rare angular to sub-rounded brick and concrete gravel.	
		1.40	ES					
					1.80		MADE GROUND: White to off-white structureless CHALK, recovered as putty chalk and fine to coarse angular to sub-rounded chalk gravel with rare medium to coarse angular to rounded flint gravel, recovered as dry. (re-worked chalk)	
					3.10		MADE GROUND: Grey to off-white CHALK with fine orange silt / sand and coarse flint, recovered as dry.	
				3.80		White to off-white structureless CHALK, recovered as putty chalk with fine to coarse angular to sub-angular chalk, and rare angular to		

Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS10

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					5.00		rounded flint gravel, with occasional patches of pale brown sandy infill, recovered as wet. (possible re-worked chalk)	
							End of borehole at 5.00 m	

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS11

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description				
		Depth (m)	Type	Results								
		0.67 - 1.00	ES		0.07			MADE GROUND: Brick paving	1			
					0.17			MADE GROUND: Sand base for brick paving.				
					0.67			MADE GROUND: Black coarse clayey SAND with clinker, natural stone, concrete and medium to coarse, sub-angular to sub-rounded flint gravel.				
					1.00			MADE GROUND: Light brown to yellow medium to coarse clayey SAND with clinker, flint, sand, cobbles and fine to coarse chalk gravel. <i>Woven geotextile at 0.67m.</i>				
					1.90			MADE GROUND: Off-white re-worked CHALK with flint and very rare brick gravel.				
					2.50 - 2.70			ES			MADE GROUND: Brown slightly gravelly silty SAND with fine to coarse angular to rounded flint, chalk and brick gravel.	2
											<i>Band of coarse grey sand between 2.70-2.90m.</i>	
					3.15 - 3.40			ES			MADE GROUND: Brown to grey gravelly coarse SAND with fine to coarse angular to rounded flint gravel. <i>Mild sewage / waste odour between 3.15-3.40m.</i>	3
											MADE GROUND: Light brown to yellow slightly gravelly coarse SAND with fine to coarse, angular to rounded flint gravel.	
											End of borehole at 3.50 m	4

Remarks
Borehole remained dry and stable. Refusal at 3.50m. Hole terminated at 3.50m and backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS12

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.40	ES		0.10			MADE GROUND: Blacktop
					0.15			MADE GROUND: Brown gravelly SAND with angular to rounded fine to medium flint and natural stone gravel.
								MADE GROUND: Dark grey to black gravelly SAND with fine to coarse, angular to rounded flint and concrete gravel.
					0.80			MADE GROUND: Pale brown gravelly SAND with fine to coarse angular to rounded flint gravel.
					1.20 - 1.70			ES
		2.80	ES		2.80			MADE GROUND: Brown gravelly CLAY with fine to coarse, angular to rounded flint and chalk gravel. (possible re-worked natural soil)
End of borehole at 2.80 m								

Remarks
Borehole remained dry and stable. Hard surface obstruction at 2.80m with no further progress. Hole terminated at 2.80m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS13

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.90	ES		0.10		MADE GROUND: Blacktop	
					0.60		MADE GROUND: Dark grey to black gravelly medium to coarse SAND with flint, natural stone and concrete gravel.	
		2.40	ES		1.00		MADE GROUND: Dark grey to black gravelly medium to coarse SAND with flint gravel.	
					2.50		MADE GROUND: Brown slightly gravelly SAND with occasional fine to coarse angular to rounded flint gravel. (possible re-worked natural soil)	
End of borehole at 2.50 m								

Remarks
Borehole remained dry and stable. Hard surface obstruction at 2.50m with no further progress. Hole terminated at 2.50m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS14

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.07			MADE GROUND: Brick paving
		0.15 - 0.60	ES		0.15			MADE GROUND: Pale brown medium SAND paving base.
					0.60			MADE GROUND: Dark brown to grey sandy GRAVEL of fine to coarse, angular to rounded flint, natural stone and concrete, sand is medium to coarse, and in places has an ashy texture, with rare pieces of fabric.
							White to off-white structureless CHALK, recovered as putty chalk with gravel of fine to coarse sub-angular chalk, and very rare fine to medium, angular to rounded flint, with patches of pale brown sandy infill, recovered as moist. (possible re-worked Chalk)	



Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS14

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		4.30	ES					
				5.00			End of borehole at 5.00 m	

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS15

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.17 - 0.50	ES		0.07 0.17		MADE GROUND: Brick paving MADE GROUND: Pale brown medium SAND paving base. MADE GROUND: Brown coarse SAND with medium to coarse, occasionally cobble, subangular to sub-rounded flint gravel, and rare fine angular blacktop gravel.	
		0.70 - 0.80	ES		0.53		Off-white and yellow, brown and black patchy gravelly CLAY, recovered as putty chalk with gravel of fine to coarse sub-angular chalk, and rare fine to coarse angular flint. <u>Geotextile at 0.53m.</u>	
					4.00		Continued on next sheet	

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS15

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		4.80	ES		5.00		White structureless CHALK, recovered as putty chalk with gravel of fine to coarse sub-angular chalk and rare angular to rounded fine to medium flint, recovered as moist. (possible re-worked Chalk)	
							Grey/blue colour and sight hydrocarbon smell between 4.8-5.0m.	
							End of borehole at 5.00 m	

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





Borehole Log

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.10		MADE GROUND: Brick paving.	
		0.30	ES				MADE GROUND: Brown gravelly SAND with gravel of fine to coarse angular to rounded flint and occasional sub-angular concrete.	
		0.60					MADE GROUND: White and brown to dark brown clayey sandy GRAVEL of fine to medium sub-rounded chalk, and fine to coarse angular to rounded flint.	
		0.80	ES		1.00		White to off-white CHALK, recovered as putty chalk with gravel of fine to coarse sub-angular chalk, and very rare fine to medium, angular to rounded flint. (possible re-worked Chalk)	1
								2
								3
								4

Continued on next sheet

Remarks
Groundwater encountered at 4.50m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS17

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
▲	▼				5.00		End of borehole at 5.00 m	

Remarks
Groundwater encountered at 4.50m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS18

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 30/08/2018 - 30/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Blacktop.	
		0.20 - 0.50	ES		0.15		MADE GROUND: Brown sandy GRAVEL of fine to coarse, angular to rounded flint, concrete and brick and occasional clayey cobbles.	
					2.20		Off-white structureless putty CHALK with fine to coarse, angular to sub-angular chalk and flint gravel. (possible re-worked chalk).	
		3.20	ES		3.20		Dark brown to grey silty clayey SAND with occasional fine shell fragments and organic material, recovered as moist to wet in places.	

Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS18

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 30/08/2018 - 30/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					5.00			End of borehole at 5.00 m	5
									6
									7
									8

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS19

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.10			MADE GROUND: Blacktop.
		0.40 - 0.60	ES					MADE GROUND: Brown and grey gravelly medium to coarse SAND with fine to coarse angular to rounded flint, concrete and brick gravel.
		1.40 - 1.90	ES		1.20			MADE GROUND: Pale brown gravelly coarse SAND with fine to coarse flint, concrete and brick gravel.
					1.40			Rare piece of metal with a strong hydrocarbon odour at 1.20m. MADE GROUND: Brown and white very gravelly CLAY with fine to coarse chalk, flint and brick gravel. Black patches with a strong hydrocarbon odour between 1.40-1.90m.
					4.00			Continued on next sheet

Remarks
Groundwater encountered at 4.0m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS19

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 23/08/2018 - 23/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		4.50 - 5.00	ES		5.00		White to off-white structureless CHALK, recovered as putty chalk with fine to coarse angular to sub-angular chalk, and rare angular to rounded flint gravel, with occasional patches of pale brown sandy infill, recovered as wet. (possible re-worked chalk) <i>Metal and wood fragments associated with the black patches and strong hydrocarbon odour at 4.00m.</i>	
							End of borehole at 5.00 m	

Remarks
 Groundwater encountered at 4.0m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS20

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 30/08/2018 - 30/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.15			MADE GROUND: Blacktop.
		0.30 - 0.50	ES					MADE GROUND: Brown sandy GRAVEL of fine to coarse, angular to rounded flint, concrete and brick and occasional clayey cobbles.
		1.50	ES					
					3.00			Dark brown to grey silty clayey SAND with occasional fine shell fragments and organic material, recovered as moist to wet in places.
Continued on next sheet								

Remarks
Groundwater encountered at 4.20m. Hard siltstone at 4.40m with no further progress. Hole terminated at 4.40m and backfilled with arisings and a concrete surface.





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Borehole Log

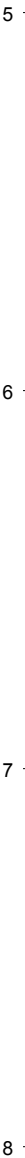
Borehole No.

WS20

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 30/08/2018 - 30/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
	▼	4.40	ES		4.40		Groundwater at 4.20m. ----- End of borehole at 4.40 m	



Remarks
 Groundwater encountered at 4.20m. Hard siltstone at 4.40m with no further progress. Hole terminated at 4.40m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS21

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 30/08/2018 - 30/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
[Pattern]		0.20 - 0.50	ES		0.15		MADE GROUND: Blacktop.	
					0.90		MADE GROUND: Brown to grey sandy GRAVEL of fine to coarse flint, concrete and brick gravel. Slight hydrocarbon or organic odour in the soil.	
					1.20		MADE GROUND: Brown slightly gravelly SAND with fine to medium, angular to rounded flint gravel.	
					1.50		MADE GROUND: Red sandy GRAVEL of fine to coarse, angular, occasional brick gravel.	
					2.60		MADE GROUND: Pale brown and white speckled clayey gravelly medium to coarse SAND with fine to coarse, angular to rounded brick, chalk and flint gravel.	
		3.20 - 3.60	ES				Dark grey to brown slightly gravelly silty medium to coarse SAND with flint gravel, organic material and occasional shell fragments. Organic odour in the soil.	

Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS21

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 30/08/2018 - 30/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					4.60				
					5.00		Off-white to grey clayey gravelly SAND with fine to medium, angular to rounded flint and chalk gravel, recovered as moist.		
							End of borehole at 5.00 m		5
									6
									7
									8

Remarks
Borehole remained dry and stable. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS22

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 30/08/2018 - 30/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
							MADE GROUND: Blacktop.		
		0.20 - 0.40	ES		0.15		MADE GROUND: Brown to grey sandy GRAVEL of fine to coarse concrete, flint and brick.		
					0.80		Brown and white speckled gravelly CLAY with fine to medium chalk and fine to medium, angular to rounded flint gravel.	1	
					2.50		Dark brown clayey silty SAND with occasional organic and shell fragments. Slight organic odour in the soil.	2	
		3.20 - 3.40	ES					3	
								4	

Continued on next sheet

Remarks
Groundwater encountered at 4.20m. Hole backfilled with arisings and a concrete surface.





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Borehole No.

WS22

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Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 30/08/2018 - 30/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
	▼				5.00		Groundwater at 4.20m.		5
							End of borehole at 5.00 m		6
									7
									8

Remarks
 Groundwater encountered at 4.20m. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS23

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.10			MADE GROUND: Blacktop	
		0.20	ES					MADE GROUND: Brown to grey slightly clayey gravelly SAND with fine to coarse, angular to rounded flint and concrete gravel.	
					0.45				Hard concrete at 0.40m.
		0.80	ES					Brown and white speckled gravelly sandy CLAY with fine to coarse, angular to rounded flint and chalk gravel. (possible re-worked Head Formation)	
		1.50	ES		1.00			White to off-white structureless CHALK, recovered as putty chalk with rare fine to medium, angular to rounded flint gravel. (possible re-worked Chalk)	
		3.75	ES						



Continued on next sheet

Remarks
Groundwater at 4.00m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS23

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
							Groundwater at 4.00m.		
					5.00		End of borehole at 5.00 m	5	
								6	
								7	
								8	

Remarks
 Groundwater at 4.00m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS24

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.08 - 0.28	ES		0.08		MADE GROUND: Blacktop	
		0.62 - 0.80	ES		0.62		MADE GROUND: Brown gravelly medium SAND with occasional medium to coarse, sub-rounded to rounded flint, blacktop and rare brick gravel. <i>Becoming grey with black patches below 0.25m.</i>	
		0.80	ES				MADE GROUND: Black silty SAND with occasional cobble concrete and fine to medium, angular ceramic gravel. <i>Recovered as moist below 0.62. Groundwater at 0.80m. Water is black with no odour.</i>	
Continued on next sheet								

Remarks
Groundwater at 0.80m, with no further progress in the hand pit. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS24

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					5.00			

End of borehole at 5.00 m

5
6
7
8

Remarks
 Groundwater at 0.80m, with no further progress in the hand pit. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS25

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.10		MADE GROUND: Blacktop		
					0.40		MADE GROUND: Brown to orange sandy GRAVEL with fine to coarse, occasional cobble, angular to rounded brick.		
		0.60	ES		0.80		MADE GROUND: Brown and white speckled gravelly CLAY with angular to rounded fine to medium chalk and fine to coarse flint gravel.		
		1.00	ES		1.00		MADE GROUND: White, black and brown gravelly sandy CLAY with fine to coarse angular to rounded chalk and flint gravel.	1	
					2.00		Brown and white speckled gravelly sandy CLAY with fine to medium sub-angular chalk, and angular to rounded flint gravel. (possible re-worked Head Formation)		
							White structureless CHALK with occasional angular to rounded, fine to medium flint gravel. (possible re-worked Chalk)	2	
		3.00	ES					3	
	▼						Groundwater at 3.20m.		
								4	

Continued on next sheet

Remarks
Groundwater at 3.20m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS25

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					5.00			
								End of borehole at 5.00 m

Remarks
 Groundwater at 3.20m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

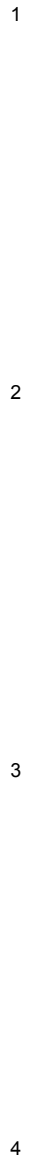
Borehole No.

WS26

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
[Pattern]					0.15			MADE GROUND: Blacktop
		0.30	ES					MADE GROUND: Dark grey sandy GRAVEL of fine to coarse, angular to rounded flint, brick and concrete, with occasional chalk.
					0.50			



Remarks
 Borehole remained dry and stable. Hollow sounding flat surface obstruction encountered at 0.50m. Hole extended but with no further progress. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS27

Sheet 1 of 1

Project Name: Carrow Works, Norwich

Project No.
LP01671

Co-ords: -

Hole Type
HA

Location: Carrow Works, Bracondale, Norwich NR1 2DD

Level:

Scale
1:10

Client: Britvic Soft Drinks Ltd and Unilever (UK)

Dates: 21/08/2018 - 21/08/2018

Logged By
AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete.	
					0.80		End of borehole at 0.80 m	

1

2

Remarks
Hole concrete cored and unable to be removed. Hole terminated at 0.80m.





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Borehole Log

Borehole No.

WS27a

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
▲	▼	0.10			0.10		MADE GROUND: Blacktop	
		0.30	ES		0.45		MADE GROUND: Brown gravelly SAND with gravel of fine to coarse angular to rounded flint and occasional sub-angular concrete, and rare sub-angular blacktop fragments.	
		0.60	W		0.55		MADE GROUND: Brown GRAVEL of rounded medium to coarse, occasionally cobble flint.	
					0.65		MADE GROUND: Concrete.	
							Perched murky groundwater at 0.55m. Hard concrete obstruction at 0.60m. End of borehole at 0.65 m	

Remarks
 Groundwater encountered at 0.55m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS28

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 29/08/2018 - 29/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10 - 0.30	ES		0.10		MADE GROUND: Blacktop.	
		1.80 - 2.40	ES		0.50		MADE GROUND: Grey to brown gravelly SAND with fine to coarse, angular to rounded flint, concrete and brick gravel.	
					1.10		MADE GROUND: Pale brown to orange gravelly SAND with fine to coarse, angular to rounded flint and brick gravel and occasional brick cobbles.	
					1.10		MADE GROUND: Brown to white gravelly sandy CLAY with fine to coarse, angular to rounded chalk, flint and occasional brick gravel and patches of dark brown ashy coarse sand.	
		2.90		MADE GROUND: Dark grey slightly gravelly sandy CLAY with occasional shell fragments, chalk gravel, organic material and very sandy in places. Organic odour in the soil.				
3.50	ES		3.80		White to off-white putty CHALK with fine to coarse, angular to rounded chalk gravel and occasional black patches with no distinct odour.			
		4.00	ES					



Continued on next sheet

Remarks
Groundwater at 4.00m. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS28

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 29/08/2018 - 29/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
							(possible re-worked chalk).		
					4.50				
		5.00	ES		5.00		Brown to dark brown silty SAND with occasional roots.		
							End of borehole at 5.00 m	5	
								6	
								7	
								8	

Remarks
 Groundwater at 4.00m. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS29

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete.	
		0.50	ES		0.30 0.40		MADE GROUND: Dark grey to brown sandy GRAVEL of fine to coarse flint, concrete and occasional chalk.	
		3.80	ES				Off-white CHALK, recovered as gravelly putty chalk with gravel of fine to coarse, angular to subangular chalk and occasional fine to medium, angular to rounded flint, and occasional lenses of brown sandy infill, recovered as moist. (possible re-worked Chalk)	



Continued on next sheet

Remarks
 Groundwater encountered at 4.20m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS29

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
[Hatched Box]	▼				5.00		[Hatched Box]	5
							End of borehole at 5.00 m	5
								6
								7
								8

Remarks
Groundwater encountered at 4.20m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS30

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								MADE GROUND: Concrete.
		0.40	ES		0.35 0.40			MADE GROUND: Grey sandy GRAVEL of fine to coarse angular to rounded flint and concrete. Off-white CHALK, recovered as gravelly putty chalk with gravel of fine to coarse, angular to subangular chalk and occasional fine to medium, angular to rounded flint, and occasional lenses of brown sandy infill, recovered as moist. (possible re-worked Chalk)
		4.00	ES					Continued on next sheet

Remarks
Groundwater encountered at 4.20m.Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS30

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
	▼				5.00		End of borehole at 5.00 m	

Remarks
 Groundwater encountered at 4.20m.Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS31

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete.	
		0.60	ES		0.20		MADE GROUND: Dark brown and white clayey GRAVEL of fine to coarse, angular to rounded flint and chalk, with rare clinker.	
					1.15 1.20		MADE GROUND: Concrete. End of borehole at 1.20 m	

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS32

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
▼							MADE GROUND: Concrete.	1
	0.50	ES		0.45 0.50			MADE GROUND: Grey sandy GRAVEL of fine to coarse angular to rounded flint and occasional concrete. MADE GROUND: Brown to orange sandy GRAVEL of fine to coarse, angular to rounded flint	
	1.50	ES		1.80			Off-white CHALK, recovered as gravelly putty chalk with gravel of fine to coarse, angular to subangular chalk and occasional fine to medium, angular to rounded flint, and occasional lenses of brown sandy infill, recovered as moist. (possible re-worked Chalk)	
								3
								4

Continued on next sheet

Remarks
 Groundwater encountered at 3.50m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS32

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					5.00				5
								End of borehole at 5.00 m	6
									7
									8

Remarks
 Groundwater encountered at 3.50m. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS33

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 29/08/2018 - 29/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.10		MADE GROUND: Blacktop.	
		0.20 - 0.40	ES				MADE GROUND: Brown to red gravelly medium to coarse SAND with fine to coarse occasional flint and brick gravel and cobbles.	
					0.60		MADE GROUND: Dark yellow to pale brown sandy gravelly CLAY with fine to coarse, angular to rounded flint and brick gravel.	
					0.80		MADE GROUND: Dark brown gravelly CLAY with fine to coarse, angular to rounded flint, brick, chalk and slate gravel.	1
		1.20 - 1.50	ES					
					1.50		MADE GROUND: Brown and white gravelly CLAY with fine to coarse, angular to rounded chalk, flint and rare brick gravel.	2
					2.10		End of borehole at 2.10 m	3
								4

Remarks
Borehole remained dry and stable. Hard brick / concrete at 2.10m with no further progress. Hole terminated at 2.10m and backfilled with arisings and a concrete surface.





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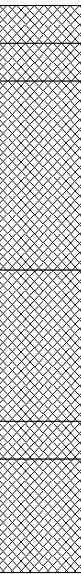
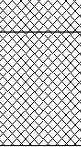
Borehole Log

Borehole No.

WS34

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 28/08/2018 - 28/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.10 - 0.20	ES		0.10		MADE GROUND: Blacktop.	
					0.20		MADE GROUND: Brown to grey gravelly SAND with fine to coarse, angular to rounded concrete, flint, natural stone and brick gravel and occasional cobbles.	
					0.70		MADE GROUND: Brown gravelly SAND with fine to coarse, angular to rounded flint, brick, concrete and natural stone gravel and occasional cobbles.	
					1.10			
		1.30 - 1.50	ES		1.20		MADE GROUND: Red gravelly SAND with fine to coarse, occasional brick cobbles.	
					1.50		MADE GROUND: Brown to grey gravelly SAND with fine to coarse concrete, flint and brick gravel and occasional cobbles. MADE GROUND: Brown slightly gravelly slightly clayey medium coarse SAND with angular to rounded flint gravel.	
----- End of borehole at 1.50 m -----								

Remarks
Borehole remained dry and stable. Fragements of concrete at 1.50m with no further progress. Hole terminated at 1.50m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS35

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 28/08/2018 - 28/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
Well	▼	0.20 - 0.30	ES		0.10 0.20		MADE GROUND: Blacktop. MADE GROUND: Concrete. MADE GROUND: Brown to grey very gravelly SAND with fine to coarse, angular to rounded concrete, flint and brick gravel. <i>Rebar at 0.70m.</i>	1	
					1.30		MADE GROUND: Brown, white and black sandy gravelly CLAY of reworked clay, chalk, black ashy sand and rare fragments of glass and metal. <i>Black ashy sand layer at 1.40m to 1.80m with no distinct odour.</i>		2
		2.40 - 2.70	ES		2.40 2.70		MADE GROUND: Dark grey to blue sandy GRAVEL to gravelly coarse SAND with a slight hydrocarbon or organic odour. MADE GROUND: Dark brown slightly gravelly sandy CLAY to moist clayey SAND with clinker gravel fragments of shell.		
					3.00		MADE GROUND: Grey coarse sandy GRAVEL with fine to coarse, angular to rounded flint gravel. <i>Groundwater at 3.00m.</i>		3
		3.80 - 4.00	ES		3.40		Brown sandy clay PEAT with organic fragments and an organic odour.		4

Continued on next sheet

Remarks
Groundwater encountered at 3.00m. Hole backfilled with arisings and a concrete surface.





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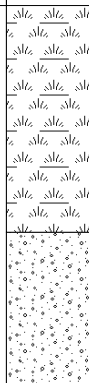
Borehole Log

Borehole No.

WS35

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 28/08/2018 - 28/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		4.60 - 5.00	ES		4.60		 Grey sandy GRAVEL of fine to coarse, angular to rounded flint gravel.		
					5.00				
									End of borehole at 5.00 m
									6
									7
									8

Remarks
Groundwater encountered at 3.00m. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS36

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/08/2018 - 24/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete.	
		0.60	ES		0.50		MADE GROUND: Brown and grey clayey sandy GRAVEL of fine to coarse concrete, flint and brick.	
					1.00		Brown gravelly SAND with fine to coarse, angular to rounded flint gravel. <i>Small black patch of ashy sand at 1.10m.</i>	1
		2.20	ES		2.00		Grey gravelly SAND with fine to coarse, angular to rounded flint gravel.	2
		4.00 - 5.00	ES					3
Continued on next sheet								4

Remarks
Groundwater at 3.00m. Hole backfilled with arisings and a concrete surface and a concrete surface.





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Borehole Log

Borehole No.

WS36

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/08/2018 - 24/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					5.00			
								End of borehole at 5.00 m

Remarks
 Groundwater at 3.00m. Hole backfilled with arisings and a concrete surface and a concrete surface.





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Borehole Log

Borehole No.

WS37

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/08/2018 - 24/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete.	
		0.70	ES		0.40		MADE GROUND: Brown clayey gravelly SAND with fine to coarse, angular to rounded concrete, flint, clinker, brick and ash gravel and occasional chalk and putty chalk.	
		1.10 - 1.40	ES		0.90		MADE GROUND: Grey to black gravelly CLAY with fine to coarse, angular to rounded flint and concrete gravel.	
					1.40		MADE GROUND: Dark brown to black slightly gravelly silty SAND with fine to coarse, angular to rounded flint gravel.	
					1.80		Dark brown clayey sandy PEAT with organic fragments. Organic odour in the soil.	
		4.00 - 4.30	ES		3.80		Grey gravelly SAND with natural stone and occasional angular to rounded flint gravel. Groundwater at 3.90m. Groundwater raised to 2.05m.	

Continued on next sheet

Remarks
 Groundwater at 3.90m. Hole backfilled with arisings and a concrete surface and a concrete surface.





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Borehole Log

Borehole No.

WS37

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/08/2018 - 24/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					5.00				
								End of borehole at 5.00 m	5
									6
									7
									8

Remarks
 Groundwater at 3.90m. Hole backfilled with arisings and a concrete surface and a concrete surface.





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Borehole Log

Borehole No.

WS38

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/08/2018 - 24/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete.	
				0.35			MADE GROUND: Mid-brown slightly clayey gravelly SAND with brick and rare coarse, angular to rounded flint gravel.	
				0.65			MADE GROUND: Grey to brown silty clayey gravelly SAND with rare brick gravel.	
		0.85 - 1.10	ES	0.80			MADE GROUND: Grey to brown sandy gravelly CLAY with chalk, rare brick charcoal and timber gravel.	
				1.10			MADE GROUND: Dark grey structureless putty CHALK with fine to coarse angular to sub-angular chalk, and rare angular to rounded flint gravel (possible re-worked chalk).	
		1.35 - 1.55	ES	1.35			MADE GROUND: Light grey gravelly SAND with clinker gravel.	
				1.55			MADE GROUND: Dark grey gravelly SAND with clinker gravel.	
				1.55			MADE GROUND: Dark brown peaty SAND with rare brick gravel.	
				2.00			Dark brown fibrous PEAT with organic fragments and an organic odour.	
		2.40 - 2.60	ES					
							Groundwater at 3.00m.	
				3.60			Grey coarse gravelly SAND with flint gravel.	
				3.90			Grey and light brown silty gravelly SAND with	

Continued on next sheet

Remarks
Groundwater at 3.00m. Hole backfilled with arisings and a concrete surface.





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Borehole No.

WS38

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/08/2018 - 24/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		4.50 - 4.70	ES				occasional fine to coarse, angular to rounded flint gravel.	
					5.00		<p><i>Sandy clay band at 4.85-4.90m.</i></p> <p>----- End of borehole at 5.00 m</p>	

Remarks
Groundwater at 3.00m. Hole backfilled with arisings and a concrete surface.





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WS39

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/08/2018 - 24/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
▼		0.41 - 1.25	ES		0.41		MADE GROUND: Concrete.	1	
		1.25 - 1.65	ES		1.25		MADE GROUND: Grey soft gravelly sandy CLAY with chalk, rare brick, clinker and medium to coarse, angular to rounded flint gravel.		
					1.65		MADE GROUND: Black soft gravelly sandy CLAY and PEAT with fine to coarse, angular to rounded rare flint and brick gravel.		2
							Dark brown fibrous PEAT with organic fragments and an organic odour.		
							<i>Very fine flint gravel and organic rich below 2.50m.</i>		3
						3.50			
		3.80 - 4.00	ES		3.80		Grey gravelly coarse SAND with fine to coarse, angular to rounded flint gravel.	4	
					4.00				

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Remarks
Groundwater at 1.50-2.00m. Hole backfilled with arisings and a concrete surface.





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Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/08/2018 - 24/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		4.75 - 4.95	ES		4.25			Dark grey clayey GRAVEL of flint and natural stone, recovered as wet.	
								Grey and black clayey gravelly SAND with fine to coarse, angular to rounded flint gravel.	
								Off-white and brown speckled gravelly structureless CHALK with fine to coarse, angular to rounded flint gravel. (possible re-worked chalk).	
					4.95			End of borehole at 5.00 m	5
									6
									7
									8

Remarks
Groundwater at 1.50-2.00m. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS40

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 29/08/2018 - 29/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20		MADE GROUND: Blacktop.	1 2 3 4
		0.60	ES		0.60		MADE GROUND: Brown sandy GRAVEL of fine to coarse, angular to rounded flint.	
		3.20	ES		2.30		Brown slightly gravelly medium to coarse SAND with fine to coarse, angular to rounded flint gravel.	
							White and brown speckled putty CHALK with occasional fine to coarse, angular to rounded flint gravel and brown patches comprising roots and clay, recovered as moist. (possible re-worked chalk).	

Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS40

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 29/08/2018 - 29/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		5.00	ES		5.00				
								End of borehole at 5.00 m	5
									6
									7
									8

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS41

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 29/08/2018 - 29/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
Well	Water Strikes	0.20 - 0.40	ES		0.15		MADE GROUND: Blacktop.	
					0.70		MADE GROUND: Grey gravelly SAND with fine to medium, angular to rounded occasional coarse concrete and flint gravel. <i>Becoming dark grey at 0.50m.</i>	
					1.50		MADE GROUND: Pale brown slightly gravelly SAND with fine to medium, angular to rounded flint, recovered as dry.	
		1.60 - 1.80	ES		2.20		Brown very gravelly SAND with fine to coarse, angular to rounded flint gravel.	
							White to off-white putty CHALK with fine to coarse, angular to rounded chalk and rare fine to medium, angular flint gravel. (possible re-worked chalk). <i>Patches of brown / yellow between 2.20m-4.60m.</i>	

Remarks
Borehole remained dry and stable. Hard ground / obstruction at 4.60m with no further progress. Hole terminated at 4.60m and backfilled with arisings and a concrete surface.



Continued on next sheet



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Borehole Log

Borehole No.

WS41

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 29/08/2018 - 29/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					4.60		End of borehole at 4.60 m	

Remarks
Borehole remained dry and stable. Hard ground / obstruction at 4.60m with no further progress. Hole terminated at 4.60m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS42

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.60 - 1.00	ES		0.30			MADE GROUND: Leaf litter cover over dry, very sandy dark brown Topsoil with plenty of rootlets and rare thick roots.	
					0.60			Mid-brown Topsoil SAND with plenty of rootlets and rare thick roots.	
					1.00			Light brown slightly gravelly SAND with coarse, angular flint, cobbles and very rare fine chalk gravel.	
							----- End of borehole at 1.00 m -----		1
									2
									3
									4

Remarks
Borehole remained dry and stable. Hard obstruction at 1.00m with no further progress. Hole terminated at 1.00m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS43

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 22/08/2018 - 22/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.80 - 1.00	ES		0.30			MADE GROUND: Leaf litter cover over very dry sandy Topsoil with rootlets.	
					0.80			Mid-brown Topsoil SAND with rare, coarse, sub-rounded to rounded flint and very rare red brick gravel.	
					1.00			Light brown slightly gravelly SAND with coarse flint and fine chalk gravel.	
							----- End of borehole at 1.00 m		1
									2
									3
									4

Remarks
Borehole remained dry and stable. Hard obstruction at 1.00m with no further progress. Hole terminated at 1.00m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS44

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 29/08/2018 - 29/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.10 - 0.20	ES		0.10			MADE GROUND: Brick paving.	
					0.25			MADE GROUND: Pale brown gravelly coarse SAND with fine to coarse, angular torounded flint and concrete gravel.	
		1.00	ES		0.40			MADE GROUND: Brown to orange gravelly coarse SAND with fine to coarse, angular to rounded flint and concrete gravel.	
					0.50			MADE GROUND: Dark grey sandy GRAVEL of fine to coarse, angular to rounded concrete, flint and blacktop.	
					0.55			MADE GROUND: Blacktop.	
					0.70			MADE GROUND: Pale brown gravelly SAND with fine to coarse, angular to rounded flint gravel.	
		1.10			MADE GROUND: Brown gravelly SAND with occasional fine to coarse, angular to rounded flint and roots.				
									Pale brown gravelly coarse SAND with fine to coarse, angular to rounded flint gravel.



Continued on next sheet

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS44

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 29/08/2018 - 29/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					4.20			Pale brown to orange medium to coarse SAND.
					5.00			
								End of borehole at 5.00 m



Remarks
 Borehole remained dry and stable. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS45

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 28/08/2018 - 28/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
[Pattern]		0.10 - 0.30	ES		0.10		MADE GROUND: Brick paving.	
					0.50 0.55		MADE GROUND: Brown gravelly medium coarse SAND with occasional fine to medium flint gravel.	
					0.80		MADE GROUND: Blacktop. MADE GROUND: Brown to grey gravelly SAND with fine to coarse, angular to rounded flint, concrete and occasional brick gravel.	
		1.00	ES		1.30		MADE GROUND: Dark brown slightly gravelly medium to coarse SAND with fine to medium, angular to rounded flint gravel, recovered as dry.	
		3.60 - 4.00	ES				Pale brown very gravelly medium to coarse SAND with fine to coarse, angular to rounded flint gravel.	



Continued on next sheet

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS45

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 28/08/2018 - 28/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					5.00			
								End of borehole at 5.00 m

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS47

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 29/08/2018 - 29/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete with rebar.	
		0.30 - 0.60	ES		0.30		MADE GROUND: Brown sandy GRAVEL of fine to coarse, angular to rounded common cobbles, flint and coarse sand.	
					0.60			
		1.00	ES				MADE GROUND: Brown gravelly coarse SAND with fine to medium, angular to rounded flint gravel.	
					2.20		Pale brown to orange slightly gravelly medium SAND with occasional fine to coarse, angular to rounded flint gravel.	
					3.00			
							End of borehole at 3.00 m	

Remarks
Borehole remained dry and stable. Hard ground (possibly flint) at 3.00m with no further progress. Hole terminated at 3.00m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS48

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 28/08/2018 - 28/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00 - 0.10	ES		0.10		MADE GROUND: Brown to grey slightly gravelly SAND topsoil with fine to coarse, angular to rounded flint and brick gravel.	
					1.10		MADE GROUND: Brown slightly gravelly SAND with dry fine to coarse, angular to rounded flint gravel.	
					1.80		Pale brown very gravelly SAND with fine to coarse, angular to rounded flint gravel.	
End of borehole at 1.80 m								

Remarks
Borehole remained dry and stable. Hard ground / flint at 1.80m with no further progress. Hole terminated at 1.80m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS49

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 28/08/2018 - 28/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00 - 0.20	ES		1.20		MADE GROUND: Turf over brown slightly gravelly sandy clayey Topsoil with fine to coarse flint, angular to rounded concrete, brick and ceramic gravel.	
		1.80 - 2.00	ES				Pale brown slightly gravelly medium coarse SAND with fine to coarse, angular to rounded flint gravel and occasional flint cobbles.	
							<i>Becoming pale brown and more gravelly below 2.00m.</i>	



Continued on next sheet

Remarks
Borehole remained dry and stable. Hard obstruction (possibly flint) at 4.40m with no further progress. Hole terminated at 4.40m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS49

Sheet 2 of 2

Project Name: Carrow Works, Norwich

Project No.
LP01671

Co-ords: -

Hole Type
WS

Location: Carrow Works, Bracondale, Norwich NR1 2DD

Level:

Scale
1:20

Client: Britvic Soft Drinks Ltd and Unilever (UK)

Dates: 28/08/2018 - 28/08/2018

Logged By
AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		4.20 - 4.40	ES		4.40		End of borehole at 4.40 m	

5
6
7
8

Remarks

Borehole remained dry and stable. Hard obstruction (possibly flint) at 4.40m with no further progress. Hole terminated at 4.40m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS50

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 20/08/2018 - 20/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.40	ES		0.05			MADE GROUND: Blacktop
					0.15			MADE GROUND: Dark grey to black sandy GRAVEL of fine to coarse, angular to rounded flint, concrete, blacktop, and natural stone.
					0.30			MADE GROUND: Red gravelly coarse SAND with gravel of fine to coarse, angular to rounded brick, flint, concrete and natural stone.
					0.65			MADE GROUND: Brown very sandy gravelly SILT with gravel of fine to coarse, angular to rounded concrete, brick, natural stone and flint, with occasional roots.
							Pale brown very silty gravelly medium to coarse SAND with gravel of fine to coarse, angular to rounded flint and natural stone, with occasional brick and roots. (possibly re-worked natural soil)	
							<i>Becoming less silty below 1m.</i>	
							<i>Becoming pale brown below 2m.</i>	
							<i>Becoming more gravelly below 2.8m.</i>	
							Continued on next sheet	

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS50

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 20/08/2018 - 20/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					5.00		<p>Rare fine gravel of black odourless coarse sand between 4.8-5m.</p> <p>End of borehole at 5.00 m</p>	

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS51

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 20/08/2018 - 20/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.10			MADE GROUND: Blacktop	
					0.20			MADE GROUND: Dark grey to black sandy GRAVEL of fine to coarse, angular to rounded flint, concrete, blacktop, and natural stone.	
		0.50	ES		0.40			MADE GROUND: Pale brown to red gravelly coarse SAND with gravel of fine to coarse, angular to rounded flint, brick and occasional chalk.	
					0.60			MADE GROUND: Pale brown gravelly medium to coarse SAND with gravel of fine to coarse, angular to rounded flint, rare black patches with fine angular gravel clinker.	
					1.10			MADE GROUND: Pale brown to red gravelly coarse SAND with gravel of fine to coarse, angular to rounded flint, brick and occasional chalk, rare black patches with fine angular gravel clinker.	
		1.20	ES		1.50			MADE GROUND: Pale brown gravelly medium to coarse SAND with gravel of fine to coarse, angular to rounded flint, rare black patches with fine angular gravel clinker.	
					1.60			MADE GROUND: Orange sandy GRAVEL of fine to coarse angular brick fragments.	
								Pale brown to brown slightly clayey gravelly medium to coarse SAND with gravels of fine to coarse, angular to rounded flint. (possibly re-worked natural soil)	
									<i>Becoming less clayey below 2.1m.</i>

Continued on next sheet

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS51

Sheet 2 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 20/08/2018 - 20/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					5.00			<p>Rare fine gravel of black odourless coarse sand at 4.10m.</p> <p>End of borehole at 5.00 m</p>

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS52

Sheet 1 of 2

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 20/08/2018 - 20/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.06 - 0.28	ES		0.06		MADE GROUND: Blacktop	
					0.28 0.34		MADE GROUND: Dark brown to black gravelly medium SAND with fine to coarse, angular to sub-rounded <i>Distinct layer of blacktop between 0.15-0.18m.</i> <i>Distinct layer of blacktop between 0.24-0.28m.</i>	
					0.70		MADE GROUND: White clayey GRAVEL of fine to coarse, angular to sub-rounded reworked chalk. MADE GROUND: Brown sandy SILT with rare coarse sub-angular to sub-rounded flint gravel and rootlets.	
		1.00	ES				Brown very silty gravelly medium to coarse SAND, with gravels of fine to coarse, angular to rounded flint, chalk, natural stone, with occasional brick and roots. (possibly re-worked natural soil)	
							<i>Becoming slightly orange below 1.8m.</i>	
							<i>Becoming more gravelly below 2.7m.</i>	
							<i>Becoming brown below 3.8m.</i>	
							Continued on next sheet	

Remarks
Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS52

Sheet 2 of 2

Project Name: Carrow Works, Norwich

Project No.
LP01671

Co-ords: -

Hole Type
WS

Location: Carrow Works, Bracondale, Norwich NR1 2DD

Level:

Scale
1:20

Client: Britvic Soft Drinks Ltd and Unilever (UK)

Dates: 20/08/2018 - 20/08/2018

Logged By
EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		4.80	ES		5.00		<p>Rare fine gravel of black odourless coarse sand between 4.8-5m.</p> <p>End of borehole at 5.00 m</p>	

Remarks
 Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS53

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete.	
		0.40	ES		0.20		MADE GROUND: Dark brown medium coarse SAND with gravel of fine to coarse, angular to rounded flint, brick and chalk. <u>Becoming paler below 0.5m.</u>	
					1.10		MADE GROUND: Pale brown very gravelly medium to coarse SAND with gravel of fine to coarse, angular to rounded flint.	
					1.80		End of borehole at 1.80 m	

Remarks
Borehole remained dry and stable. Hard obstruction at 1.80m with no further progress. Hole terminated at 1.80m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

WS54

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete	
		0.30	ES		0.20		MADE GROUND: Grey sandy GRAVEL of fine to coarse, occasionally cobble, angular to rounded concrete and flint.	
		0.50	ES		0.40		MADE GROUND: Dark brown gravelly medium to coarse SAND with fine to coarse, angular to rounded flint gravel.	
					0.60		Brown slightly gravelly medium to coarse SAND with occasional fine to coarse, angular to rounded flint gravel. (possible re-worked natural soil)	
					2.10		<p><i>Becoming more gravelly below 1.80m.</i></p> <p>End of borehole at 2.10 m</p>	

Remarks
Borehole remained dry and stable. Hard obstruction at 2.10m with no further progress. Hole terminated at 2.10m and backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

WS55

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type WS
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:20
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/08/2018 - 24/08/2018		Logged By PA

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete.	
		0.15 - 0.31	ES		0.15		MADE GROUND: Dark brown slightly silty gravelly sandy TOPSOIL with fine to coarse, angular to rounded flint gravel. <i>One large piece of metal (15mm thick) and one large glass fragment at 0.36m.</i> Orange to brown gravelly coarse SAND with fine to coarse, angular to rounded flint gravel.	
					0.38			
		1.80 - 2.00	ES		2.00		End of borehole at 2.00 m	

Remarks
Borehole remained dry and stable. Dense gravel at 2.00m with no further progress. Hole terminated at 2.0m and backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

HP1

Sheet 1 of 1

Project Name: Carrow Works, Norwich

Project No.
LP01671

Co-ords: -

Hole Type
HA

Location: Carrow Works, Bracondale, Norwich NR1 2DD

Level:

Scale
1:10

Client: Britvic Soft Drinks Ltd and Unilever (UK)

Dates: 24/08/2018 - 24/08/2018

Logged By
AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.10		MADE GROUND: Concrete.	
		0.30	ES		0.40		MADE GROUND: Grey to brown GRAVEL of fine to coarse, angular to rounded concrete, flint and brick.	
							End of borehole at 0.40 m	

1
2

Remarks

Borehole remained dry and stable. Thick concrete obstruction at 0.40m. Hole terminated at 0.40m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

HP1a

Sheet 1 of 1

Project Name: Carrow Works, Norwich

Project No.
LP01671

Co-ords: -

Hole Type
HA

Location: Carrow Works, Bracondale, Norwich NR1 2DD

Level:

Scale
1:10

Client: Britvic Soft Drinks Ltd and Unilever (UK)

Dates: 24/08/2018 - 24/08/2018

Logged By
AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
							MADE GROUND: Concrete.	
		0.20	ES		0.10			
					0.20		MADE GROUND: Grey to brown GRAVEL of fine to coarse, angular to rounded concrete, flint and brick.	
							----- End of borehole at 0.20 m	

1

2

Remarks

Borehole remained dry and stable. Thick concrete obstruction at 0.20m. Hole terminated at 0.20m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

HP1b

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type HA
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:10
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 24/01/2018 - 24/01/2018		Logged By AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.10			MADE GROUND: Concrete.
					0.25			MADE GROUND: Grey to brown GRAVEL of fine to coarse, angular to rounded concrete, flint and brick.
								----- End of borehole at 0.25 m

Remarks
Borehole remained dry and stable. Thick concrete obstruction at 0.25m. Hole terminated at 0.25m and backfilled with arisings and a concrete surface.





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Borehole Log

Borehole No.

HP2

Sheet 1 of 1

Project Name: Carrow Works, Norwich

Project No.
LP01671

Co-ords: -

Hole Type
HA

Location: Carrow Works, Bracondale, Norwich NR1 2DD

Level:

Scale
1:10

Client: Britvic Soft Drinks Ltd and Unilever (UK)

Dates: 23/08/2018 - 23/08/2018

Logged By
AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.15 - 0.60	ES		0.15		MADE GROUND: Blacktop.	
							Pale brown to yellow gravelly slightly clayey coarse SAND with fine-coarse, angular flint and occasional concrete gravel.	
		0.70 - 1.20	ES		0.60		Pale brown to grey gravelly slightly clayey medium to coarse SAND with fine to coarse, angular to rounded flint gravel. <i>Fragments of black, light, friable, soft, possibly solidified resin with weak hydrocarbon odour at 0.60m.</i>	
					1.20		End of borehole at 1.20 m	

1

2

Remarks

Borehole remained dry and stable. Hole backfilled with arisings with a concrete surface.





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Borehole Log

Borehole No.

HP3

Sheet 1 of 1

Project Name: Carrow Works, Norwich	Project No. LP01671	Co-ords: -	Hole Type HA
Location: Carrow Works, Bracondale, Norwich NR1 2DD	Level:		Scale 1:10
Client: Britvic Soft Drinks Ltd and Unilever (UK)	Dates: 21/08/2018 - 21/08/2018		Logged By EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.30	ES		0.30		MADE GROUND: Grey slightly gravelly fine sand Topsoil with fine to coarse, angular to rounded flint, natural stone and brick gravel with and fine roots.	
					1.10		Brown slightly gravelly silty fine SAND with fine to coarse, angular to rounded chalk, flint and natural stone gravel and fine roots.	
							End of borehole at 1.10 m	

Remarks
Borehole remained dry and stable. Hole backfilled with arisings.





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Borehole Log

Borehole No.

HP4

Sheet 1 of 1

Project Name: Carrow Works, Norwich

Project No.
LP01671

Co-ords: -

Hole Type
HA

Location: Carrow Works, Bracondale, Norwich NR1 2DD

Level:

Scale
1:10

Client: Britvic Soft Drinks Ltd and Unilever (UK)

Dates: 21/08/2018 - 21/08/2018

Logged By
AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00 - 0.50	ES		0.50			MADE GROUND: Brown slightly gravelly clayey sand Topsoil with fine to coarse, angular to rounded flint and natural stone gravel and fine roots. Rare patches of grey coarse sand or ash.
					1.00			End of borehole at 1.00 m

Remarks
Borehole remained dry and stable. Hole backfilled with arisings.





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Borehole Log

Borehole No.

HP5

Sheet 1 of 1

Project Name: Carrow Works, Norwich

Project No.
LP01671

Co-ords: -

Hole Type
HA

Location: Carrow Works, Bracondale, Norwich NR1 2DD

Level:

Scale
1:10

Client: Britvic Soft Drinks Ltd and Unilever (UK)

Dates: 21/08/2018 - 21/08/2018

Logged By
AH

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00 - 0.60	ES				MADE GROUND: Brown slightly gravelly clayey sand Topsoil with fine to coarse, angular to rounded flint and natural stone gravel and occasional fine roots.	
					0.60			Pale brown slightly gravelly coarse SAND with fine to coarse, sub-angular flint gravel.
				0.80				End of borehole at 0.80 m

1
2

Remarks
Borehole remained dry and stable. Hole backfilled with arisings.





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Borehole Log

Borehole No.

HP6

Sheet 1 of 1

Project Name: Carrow Works, Norwich

Project No.
LP01671

Co-ords: -

Hole Type
HA

Location: Carrow Works, Bracondale, Norwich NR1 2DD

Level:

Scale
1:10

Client: Britvic Soft Drinks Ltd and Unilever (UK)

Dates: 21/08/2018 - 21/08/2018

Logged By
EF

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.20 - 0.30	ES		0.15		MADE GROUND: Dark brown gravelly fine sand Topsoil with fine to coarse, angular to rounded flint, natural stone, brick and chalk gravel and fine roots.	
							MADE GROUND: Brown slightly gravelly slightly silty fine SAND with gravel of fine to coarse, angular to rounded flint, chalk, natural stone and brick gravel and fine roots.	
							<i>3 inch pipe at 0.50m. Appears to be made up of cement.</i>	
					1.00		End of borehole at 1.00 m	

Remarks
Borehole remained dry and stable. Hole backfilled with arisings.



APPENDIX E – CHEMICAL LABORATORY TEST RESULTS

Chemical Laboratory
Test Results

LP01671: Carrow Works

Made Ground

Sample Reference Depth (m) Date Sampled	Analytical Parameter (Soil Analysis)	Units	Limit of detection	Acceleration Status	Risk W/PAH	GAC (2.5% SOM)	Mn	Area 1										Area 2			Area 3			Area 4			
								WSS4	WSS4	WSS5	WSS5	WSS6	WSS7	WSS7	WSS8	WSS8	WSS9	WSS9	WSS4	WSS5	WSS3	WSS5	WSS1	WSS2	WSS2	WSS4	
								0.10-0.20	1.30-1.50	2.00-3.00	2.40-2.70	0.6	0.7	1.10-1.40	0.85-1.10	1.35-1.55	0.41-1.25	1.25-1.65	0.3	0.15-0.31	0.4	0.4	0.5	0.06-0.28	1	0.10-0.20	
								28/08/2018	28/08/2018	28/08/2018	28/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018	20/08/2018	20/08/2018
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025				0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Asbestos in Soil	Type	N/A	ISO 17025			Presence	0	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected	
General Inorganics																											
pH - Automated	pH Units	N/A	MCERTS					11.4	9.4	8.2	10.5	-	9	8.4	8.2	7.9	8.4	7	11.1	9.8	8.7	8.5	8.7	8.5	8.5	10.8	
Total Organic Carbon (TOC)	%	0.1	MCERTS					4.9	3	0.4	2.3	-	1.3	2.2	2.3	4.9	2.2	1.7	0.5	0.8	0.9	1	0.9	3.3	0.7	0.2	
Speciated PAHs																											
Naphthalene	mg/kg	0.05	MCERTS	5.6	4900	460	17	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	1.9	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	420	15000	97000	7.2	0.56	< 0.05	0.18	-	0.53	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	7.2	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	510	15000	97000	5.0	0.34	< 0.05	1.3	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.62	< 0.05	0.34
Fluorene	mg/kg	0.05	MCERTS	400	9900	68000	37	0.25	< 0.05	0.85	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	1.4	< 0.05	0.12
Phenanthrene	mg/kg	0.05	MCERTS	220	3100	22000	290	4.3	2.1	2.1	-	0.48	< 0.05	0.56	< 0.05	< 0.05	< 0.05	1.6	0.24	< 0.05	0.53	< 0.05	0.18	0.71	23	< 0.05	8.9
Anthracene	mg/kg	0.05	MCERTS	5400	74000	540000	67	1.4	0.45	3.9	-	0.47	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.5	< 0.05	< 0.05	< 0.05	< 0.05	0.2	10	< 0.05	0.86	
Fluoranthene	mg/kg	0.05	MCERTS	560	3100	23000	380	14	3	30	-	1.7	< 0.05	0.6	0.41	< 0.05	3.8	0.4	< 0.05	1.4	< 0.05	0.27	1.1	54	< 0.05	8.5	
Pyrene	mg/kg	0.05	MCERTS	1200	7400	54000	310	13	2.6	26	-	1.9	< 0.05	0.49	0.4	< 0.05	3.3	0.35	< 0.05	1.2	< 0.05	0.27	0.96	49	< 0.05	7	
Benzo(a)anthracene	mg/kg	0.05	MCERTS	150	91	1	12	0.81	< 0.05	0.27	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	1.4	0.32	< 0.05	0.55	< 0.05	0.16	0.64	< 0.05	0.16	< 0.05	3.7
Chrysene	mg/kg	0.05	MCERTS	100	6.2	1.1	11	< 0.05	< 0.05	0.43	-	< 0.05	< 0.05	< 0.05	< 0.05	1.7	0.24	< 0.05	0.61	< 0.05	0.21	0.67	34	< 0.05	2.7		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	160	12	1.3	13	< 0.05	< 0.05	0.4	-	< 0.05	< 0.05	< 0.05	1.7	0.37	< 0.05	0.69	< 0.05	0.28	1.1	58	< 0.05	4.2			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	57	5	0.46	7.2	< 0.05	< 0.05	0.24	-	< 0.05	< 0.05	< 0.05	1	0.17	< 0.05	0.38	< 0.05	0.15	0.38	26	< 0.05	1.3			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	76	140	1.1	15	< 0.05	< 0.05	0.31	-	< 0.05	< 0.05	0.75	1.6	0.26	< 0.05	0.56	< 0.05	0.24	0.86	53	< 0.05	2.4			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	78	13	1.4	16	< 0.05	< 0.05	0.55	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.44	44	< 0.05	3.7			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	18	2.7	< 0.05	3.1	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	11	< 0.05	< 0.05		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	89	19	1.8	21	< 0.05	< 0.05	< 0.05	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	5.5	< 0.05	4.4		
Total PAH	mg/kg	0.8	MCERTS				1940	112	16.3	180	-	11.4	< 0.80	3.3	0.81	< 0.80	18.5	2.35	< 0.80	5.91	< 0.80	1.76	7.62	459	< 0.80	48.1	
Speciated Total EPA-16 PAHs																											
Heavy Metals / Metalloids																											
Arsenic (aqueous regia extractable)	mg/kg	1	MCERTS	37	79	640	75	7.9	7.6	9.2	-	10	41	22	58	9.1	12	25	7.3	12	9.1	8.2	7.7	8.2	7.7	7.6	
Cadmium (aqueous regia extractable)	mg/kg	0.2	MCERTS	26	220	410	88	< 0.2	< 0.2	< 0.2	-	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Chromium (hexavalent)	mg/kg	4	MCERTS	21	23	49	< 0.0	< 0.0	< 0.0	< 0.0	-	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	< 0.0	
Chromium (aqueous regia extractable)	mg/kg	1	MCERTS	910	1500	8600	99	19	12	17	-	15	9.5	13	10	14	10	18	15	12	10	7.9	13	8.6	22		
Copper (aqueous regia extractable)	mg/kg	1	MCERTS	2400	12000	68000	8800	22	13	30	-	76	660	140	2400	120	180	160	180	59	180	74	52	54	62	9.5	
Lead (aqueous regia extractable)	mg/kg	1	MCERTS	200	630	2330	24000	87	22	130	-	110	1900	210	1060	190	240	220	31	87	62	80	64	42	820	7.4	
Mercury (aqueous regia extractable)	mg/kg	0.3	MCERTS	40	120	1100	30	< 0.3	< 0.3	3.6	-	< 0.3	1.0	1.8	0.4	0.8	< 0.3	< 0.3	< 0.3	< 0.3	0.7	0.4	< 0.3	0.4	< 0.3	< 0.3	
Nickel (aqueous regia extractable)	mg/kg	1	MCERTS	130	230	980	39	15	9.7	15	-	19	15	15	18	26	22	17	18	22	18	11	11	9.9	15	8.4	
Selenium (aqueous regia extractable)	mg/kg	1	MCERTS	250	1100	12000	21	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Zinc (aqueous regia extractable)	mg/kg	1	MCERTS	3700	81000	730000	150000	58	26	87	-	110	450	150	180	200	210	210	270	33	58	45	63	40	61	47	
Monaromatics																											
Benzene	ug/kg	1	MCERTS	200	140000	27000	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Toluene	ug/kg	1	MCERTS	290000	5600000	11000000	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Ethylbenzene	ug/kg	1	MCERTS	110000	2400000	13000000	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
p & m-xylene	ug/kg	1	MCERTS	130000	4200000	14000000	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
o-xylene	ug/kg	1	MCERTS	140000	4200000	15000000	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS				< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Petroleum Hydrocarbons																											
Mineral Oil (C10 - C40)	mg/kg	10	NONE																								

Sample Reference	Depth (m)	Date Sampled	Area 13		Area 14				Area 15				WS21															
			WS13	WS14	WS1A	WS2	WS3	WS4	WS4	WS5	WS9	WS16		WS16	WS18	WS19	WS20	WS20	HPI									
			2.40-2.50	0.15-0.60	0.1	0.3	0.8	0.2	0.15-0.50	1.15-1.75	0.15-0.43	0.17-0.50	0.4	1.2	0.20-0.50	0.40-0.60	1.40-1.90	0.30-0.50	1.5	0.30	0.20-0.50							
			23/08/2018	22/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018	30/08/2018	30/08/2018	23/08/2018	30/08/2018	30/08/2018	24/08/2018	30/08/2018							
Analytical Parameter (Soil Analysis)	Units	Limit of Detection	Accreditation Status	GAC (2.5% SOM)	Free w/ HSP	Post (mm)	Comments	Max																				
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025																									
Asbestos in Soil	Type	N/A	ISO 17025	Presence	0																							
General Inorganics																												
pH - Automated	pH Units	N/A	MCERTS					11.4	-	10.9	9	8.7	-	8.4	8.6	-	8.8	10.6	9.2	8.4	10.4	9.8	-	9.2	10.3	11	8.8	
Total Organic Carbon (TOC)	%	0.1	MCERTS					4.8	-	1.8	2.7	1.8	-	3.5	1.4	-	0.8	0.2	1.8	4.3	0.7	0.6	-	0.8	0.8	0.4	0.5	
Speciated PAHs																												
Naphthalene	mg/kg	0.05	MCERTS	5.6	4900	460	17	-	< 0.05	2.3	0.81	-	4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	420	15000	97000	7.2	-	< 0.05	4.7	1.9	-	5.2	0.21	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	510	15000	97000	5.0	-	< 0.05	5.0	3.4	-	21	0.85	< 0.05	< 0.05	0.23	< 0.05	0.59	0.24	0.26	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	400	9900	68000	37	-	< 0.05	37	3.3	-	19	0.34	< 0.05	< 0.05	0.25	< 0.05	0.47	1.9	1.9	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	220	3100	22000	290	-	0.29	290	27	-	190	3.7	0.2	0.48	3.9	0.88	7.3	20	20	-	2.9	0.27	2.1	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	5400	74000	540000	67	-	< 0.05	67	8.7	-	59	1.4	< 0.05	0.22	1.5	0.12	1.5	10	10	-	0.81	< 0.05	0.37	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	560	3100	23000	380	-	0.78	380	82	-	250	18	0.41	1.1	16	1.1	15	32	26	-	8	0.71	3.6	< 0.05	< 0.05	
Pyrene	mg/kg	0.05	MCERTS	1200	7400	54000	310	-	0.74	310	71	-	210	16	0.35	0.87	15	0.92	13	26	26	-	7	0.63	2.9	< 0.05	< 0.05	
Benzo(a)anthracene	mg/kg	0.05	MCERTS	150	150	150	150	-	0.4	150	60	-	97	7.8	< 0.05	0.23	0.44	11	0.81	7.7	12	-	4.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	100	-	-	-	-	0.51	100	33	-	75	5.5	0.2	0.47	6.6	0.66	6.7	11	11	-	3	0.38	1.7	< 0.05	< 0.05	
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	160	-	-	-	-	0.64	160	67	-	92	10	0.28	0.57	8	0.87	8.2	13	13	-	4.4	0.46	1.4	< 0.05	< 0.05	
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	57	-	-	-	-	0.27	57	28	-	51	4.1	0.18	0.32	5.5	0.41	3.2	6.6	6.6	-	2	0.15	0.85	< 0.05	< 0.05	
Benzo(a)pyrene	mg/kg	0.05	MCERTS	5	10	76	147	-	0.41	76	30	-	50	4.3	0.32	0.51	9.3	0.77	6.3	12	12	-	3.6	0.33	1.2	< 0.05	< 0.05	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	78	-	-	-	-	0.27	78	30	-	78	10	0.46	0.26	3.7	0.99	6.2	5.6	5.6	-	1.8	< 0.05	0.47	< 0.05	< 0.05	
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	18	-	-	-	-	< 0.05	18	8.1	-	11	1.1	< 0.05	< 0.05	1.2	< 0.05	1.8	1.5	1.5	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	89	-	-	-	-	0.33	89	34	-	54	4.9	0.91	0.35	4.2	0.4	7.6	6.4	6.4	-	2.4	< 0.05	0.84	< 0.05	< 0.05	
Total PAH																												
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS					1940	-	4.64	1940	506	-	1280	86.7	-	3.54	5.55	86.8	7.3	86.2	161	-	40.6	3.22	16.6	< 0.80	< 0.80
Heavy Metals / Metalloids																												
Arsenic (aquia regia extractable)	mg/kg	0.1	MCERTS	37	79	640	75	-	8.6	8	7.1	-	5.6	9.7	-	4.4	5.8	13	29	10	7.6	-	13	7.7	15	9.2	9.2	
Cadmium (aquia regia extractable)	mg/kg	0.2	MCERTS	26	220	410	88	-	< 0.2	0.5	0.4	-	1.1	< 0.2	-	0.4	0.5	< 0.2	< 0.2	0.3	0.3	-	< 0.2	0.4	< 0.2	0.4	< 0.2	
Chromium (hexavalent)	mg/kg	4	MCERTS	21	23	49	< 4.0	-	< 4.0	< 4.0	< 4.0	-	< 4.0	< 4.0	-	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	-	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	
Chromium (aquia regia extractable)	mg/kg	11	MCERTS	910	1500	8900	99	-	22	99	14	-	38	12	-	4.7	7.7	12	13	17	13	-	14	15	14	11	11	
Copper (aquia regia extractable)	mg/kg	1	MCERTS	2400	12000	68000	9800	-	50	22	27	-	56	30	-	32	26	140	980	20	26	-	33	61	80	33	33	
Lead (aquia regia extractable)	mg/kg	1	MCERTS	200	630	2330	24000	-	12	28	63	-	160	79	-	25	81	810	830	75	69	-	510	540	1100	170	170	
Mercury (aquia regia extractable)	mg/kg	0.3	MCERTS	40	120	1100	30	-	< 0.3	< 0.3	< 0.3	-	< 0.3	< 0.3	-	< 0.3	< 0.3	2	< 0.3	< 0.3	< 0.3	-	0.6	0.6	30	< 0.3	< 0.3	
Nickel (aquia regia extractable)	mg/kg	1	MCERTS	130	230	980	39	-	13	7.6	7.4	-	14	11	-	6.1	6.1	14	32	14	8.1	-	14	12	12	12	12	
Selenium (aquia regia extractable)	mg/kg	1	MCERTS	250	1100	6200	2.2	-	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Zinc (aquia regia extractable)	mg/kg	1	MCERTS	3700	81000	730000	15000	-	41	59	66	-	130	40	-	14	38	160	170	67	40	-	110	130	160	120	120	
Monoaromatics																												
Benzene	ug/kg	1	MCERTS	200	140000	27000	< 1.0	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Toluene	ug/kg	1	MCERTS	290000	5600000	11000000	< 1.0	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Ethylbenzene	ug/kg	1	MCERTS	110000	2400000	13000000	< 1.0	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
p & m-xylene	ug/kg	1	MCERTS	130000	4200000	14000000	< 1.0	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
o-xylene	ug/kg	1	MCERTS	140000	4200000	15000000	< 1.0	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Petroleum Hydrocarbons																												
Mineral Oil (C10 - C40)	mg/kg	10	NONE				< 10	-	< 10	< 10	-	-	-	-	-	< 10	< 10	< 10	< 10	< 10	< 10	-	< 10	< 10	< 10	< 10	< 10	
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	78	590000	5900	< 0.001	-	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aliphatic >EC8 - EC8	mg/kg	0.001	MCERTS	230	610000	17000	< 0.001	-	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aliphatic >EC10 - EC10	mg/kg	0.001	MCERTS	65	13000	4800	< 0.001	-	< 0.001	< 0.001	-	-	-	-	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	-	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	
TPH-CWG - Aliphatic >EC12 - EC12	mg/kg	1	MCERTS	330	13000	23000	4.2	-	< 1.0	< 1.0	-	-	-	-	-	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.			

Sample Reference	Depth (m)	Date Sampled	Units	Limit of detection	Accreditation Status	Area 16						Area 17				
						GAC (2.5% SOM)						WS22	WS28	WS28	WS33	WS33
Analytical Parameter (Soil Analysis)	Type	N/A	ISO 17025	Free w/HP	Post (mm)	Commercial	Max	0.20-0.40	0.15-0.60	0.70-1.20	0.10-0.30	1.80-2.40	3.5	0.20-0.40	1.20-1.50	
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025					30/08/2018	23/08/2018	23/08/2018	29/08/2018	29/08/2018	29/08/2018	29/08/2018	29/08/2018	
Asbestos in Soil	Type	N/A	ISO 17025		Presence			Chrysotile-Hard Chrysotile-Loose <0.001	-	-	-	Chrysotile-Loose <0.001	-	-	Chrysotile-Loose <0.001	-
Asbestos in Soil	Type	N/A	ISO 17025		Presence			Detected	Not-detected	Not-detected	Detected	Not-detected	-	-	Detected	-
General Inorganics																
pH - Automated	pH Units	N/A	MCERTS					11.4	11.4	9	11.3	9.1	8.9	-	8.9	-
Total Organic Carbon (TOC)	%	0.1	MCERTS					4.8	1.4	0.2	0.3	2.4	1.8	-	0.4	-
Speciated PAHs																
Naphthalene	mg/kg	0.05	MCERTS	5.6	4900	460	17	<0.05	<0.05	<0.05	17	<0.05	-	<0.05	-	
Acenaphthylene	mg/kg	0.05	MCERTS	420	15000	97000	7.2	<0.05	<0.05	<0.05	0.38	<0.05	-	<0.05	-	
Acenaphthene	mg/kg	0.05	MCERTS	510	15000	97000	5.0	0.69	<0.05	<0.05	15	<0.05	-	1.1	-	
Fluorene	mg/kg	0.05	MCERTS	400	9900	68200	37	0.56	<0.05	<0.05	10	<0.05	-	0.6	-	
Phenanthrene	mg/kg	0.05	MCERTS	220	3100	22000	290	5.6	0.72	0.51	47	0.32	-	4.5	-	
Anthracene	mg/kg	0.05	MCERTS	5400	74000	540000	67	1.2	0.23	0.13	13	<0.05	-	1.4	-	
Fluoranthene	mg/kg	0.05	MCERTS	560	3100	23000	380	9.6	1.1	0.95	38	0.41	-	8	-	
Pyrene	mg/kg	0.05	MCERTS	1200	7400	54000	310	7.2	0.89	0.83	30	0.31	-	7.5	-	
Benzo(a)anthracene	mg/kg	0.05	MCERTS				150	3.9	0.43	0.45	13	<0.34	-	2.7	-	
Chrysene	mg/kg	0.05	MCERTS				100	3.2	0.46	0.48	10	0.27	-	1.9	-	
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS				160	3.5	0.53	0.55	12	0.33	-	3	-	
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS				57	1.5	0.25	0.4	6	0.15	-	1.2	-	
Benzo(a)pyrene	mg/kg	0.05	MCERTS	5	10	76	140	3	0.49	0.55	11	0.24	-	2.6	-	
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS				78	3	0.24	0.29	5.5	<0.05	-	1.6	-	
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS				18	1	<0.05	<0.05	1.2	<0.05	-	<0.05	-	
Benzo(ghi)perylene	mg/kg	0.05	MCERTS				89	3.6	0.28	0.33	7.1	<0.05	-	2.1	-	
Total PAH							1940	47.6	5.57	5.47	237	2.27	-	38.2	-	
Speciated Total EPA-16 PAHs																
Heavy Metals / Metalloids																
Arsenic (aqua regia extractable)	mg/kg	0.1	MCERTS	37	79	640	75	8.8	7.3	7.7	13	18	-	7.5	-	
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	26	220	410	88	<0.2	<0.2	0.3	<0.2	<0.2	-	<0.2	-	
Chromium (hexavalent)	mg/kg	4	MCERTS	21	23	49	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	-	<4.0	-	
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	910	1500	8900	99	16	11	12	26	11	-	12	-	
Copper (aqua regia extractable)	mg/kg	1	MCERTS	2400	12000	68000	9800	35	13	17	30	240	-	11	-	
Lead (aqua regia extractable)	mg/kg	1	MCERTS	200	630	2330	24000	150	26	87	100	140	-	190	-	
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	40	120	1100	30	<0.3	<0.3	<0.3	<0.3	<0.3	-	0.5	-	
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	130	230	980	39	14	8.5	11	17	18	-	8.3	-	
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	250	1100	6200	22	<1.0	<1.0	<1.0	<1.0	<1.0	-	<1.0	-	
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	3700	81000	730000	150000	110	37	310	81	70	-	75	-	
Monoaromatics																
Benzene	ug/kg	1	MCERTS	200	140000	27000	<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
Toluene	ug/kg	1	MCERTS	290000	5600000	11000000	<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
Ethylbenzene	ug/kg	1	MCERTS	110000	2400000	13000000	<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
p & m-xylene	ug/kg	1	MCERTS	130000	4200000	14000000	<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
o-xylene	ug/kg	1	MCERTS	140000	4200000	15000000	<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
Petroleum Hydrocarbons																
Mineral Oil (C10 - C40)	mg/kg	10	NONE				<10	-	-	-	-	<10	<10	<10	<10	
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	78	590000	5900	<0.001	-	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	
TPH-CWG - Aliphatic >EC8 - EC8	mg/kg	0.001	MCERTS	230	610000	17000	<0.001	-	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	65	13000	4800	<0.001	-	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	330	13000	23000	4.2	<1.0	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	2400	13000	82000	120	<2.0	<2.0	-	-	<2.0	<2.0	3.8	<2.0	
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS				330	<8.0	<8.0	-	-	<8.0	<8.0	<8.0	<8.0	
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	92000	250000	1700000	1300	<8.0	<8.0	-	-	<8.0	<8.0	11	<8.0	
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	140	5600	46000	1700	<10	<10	-	-	<10	<10	20	<10	
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	83	5000	8100	<0.001	-	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	290	5600	110000	<0.001	-	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	83	5000	8100	<0.001	-	<0.001	-	-	<0.001	<0.001	<0.001	<0.001	
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	180	5000	28000	13	<1.0	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	330	5100	37000	720	<1.0	<1.0	-	-	<1.0	<1.0	7.2	<1.0	
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	540	3800	28000	4800	<10	<10	-	-	<10	<10	59	<10	
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	1500	3800	28000	10000	<10	<10	-	-	<10	<10	100	<10	
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS				15000	<11	<11	-	-	<10	<10	170	<10	
VOCs																
Chloromethane	ug/kg	1	ISO 17025				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
Chloroethane	ug/kg	1	NONE				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
Bromomethane	ug/kg	1	ISO 17025				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
Vinyl Chloride	ug/kg	1	NONE				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
Trichlorofluoromethane	ug/kg	1	NONE				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
1,1-Dichloroethane	ug/kg	1	NONE				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/kg	1	ISO 17025				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
Cis-1,2-dichloroethane	ug/kg	1	MCERTS				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
1,1-Dichloroethane	ug/kg	1	MCERTS				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
2,2-Dichloropropane	ug/kg	1	MCERTS				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
Trichloroethane	ug/kg	1	MCERTS				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
1,1,1-Trichloroethane	ug/kg	1	MCERTS				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
1,2-Dichloroethane	ug/kg	1	MCERTS				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
1,1-Dichloropropane	ug/kg	1	MCERTS				<1.0	-	<1.0	-	-	<1.0	<1.0	<1.0	<1.0	
Trans-1,2-dichloroethane	ug/kg	1	NONE</													

LP01671: Carrow Works

Natural Soils

Sample Reference	Depth (m)	Date Sampled	Units	Limit of detection	Acceleration Status	Risk # HSP	POS (real)	Commercial	Max	Area 11		Area 12		Area 13		Area 14		Area 15		Area 16			
										WS15	WS16	WS8	WS14	WS1	WS5	WS9	WS9	WS16	WS18	WS19	WS20	WS21	WS22
GAC (1% SOM)										0.70-0.80	4.8	4.2	4.3	3	4.90-5.00	2.55-2.85	4.90-5.00	2.60-2.80	3.2	4.50-5.00	4.4	3.20-3.60	3.20-3.40
GAC (1% SOM)										22/08/2018	22/08/2018	22/08/2018	22/08/2018	21/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018	30/08/2018	30/08/2018	30/08/2018	30/08/2018	30/08/2018
Analytical Parameter (Soil Analysis)	Type	N/A	ISO 17025																				
Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025																				
Asbestos in Soil	Type	N/A	ISO 17025							Not detected				Not detected									
General Inorganics	pH Units	N/A	MCERTS							9.1				8.3									
Total Organic Carbon (TOC)	%	0.1	MCERTS							0.2				0.3									
Speciated PAHs	mg/kg	0.05	MCERTS	2.3	4900	190	<0.05							<0.05									
Naphthalene	mg/kg	0.05	MCERTS	170	15000	83000	<0.05							<0.05									
Acenaphthylene	mg/kg	0.05	MCERTS	210	15000	84000	<0.05							<0.05									
Acenaphthene	mg/kg	0.05	MCERTS	170	9900	63000	0.47							0.47									
Fluorene	mg/kg	0.05	MCERTS	95	3100	22000	4.4							4.4									
Phenanthrene	mg/kg	0.05	MCERTS	2400	74000	540000	1.3							1.3									
Anthracene	mg/kg	0.05	MCERTS	280	3100	23000	11							11									
Fluoranthene	mg/kg	0.05	MCERTS	620	7400	54000	9.1							9.1									
Pyrene	mg/kg	0.05	MCERTS																				
Benzo(a)anthracene	mg/kg	0.05	MCERTS																				
Chrysene	mg/kg	0.05	MCERTS																				
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS																				
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS																				
Benzo(a)pyrene	mg/kg	0.05	MCERTS	5	10	76	1.9							1.9									
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS																				
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS																				
Benzo(ghi)perylene	mg/kg	0.05	MCERTS																				
Total PAH	mg/kg	0.8	MCERTS							52.9				52.9									
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS																				
Heavy Metals / Metalloids	mg/kg	1	MCERTS	37	79	640	10			4.1				5.3									
Arsenic (aqueous extractable)	mg/kg	0.2	MCERTS	26	220	410	0.6			0.6				0.4									
Cadmium (aqueous extractable)	mg/kg	4	MCERTS	21	23	49	<0.01			<0.01				<0.01									
Chromium (hexavalent)	mg/kg	1	MCERTS	910	1500	8600	16			8.9				12									
Chromium (aqueous extractable)	mg/kg	1	MCERTS	2400	12000	68000	25			9.5				9.3									
Copper (aqueous extractable)	mg/kg	1	MCERTS	200	630	2330	41			6				5.9									
Lead (aqueous extractable)	mg/kg	0.3	MCERTS	40	120	1100	<0.3			<0.3				<0.3									
Mercury (aqueous extractable)	mg/kg	1	MCERTS	130	230	980	21			6.2				6.9									
Nickel (aqueous extractable)	mg/kg	1	MCERTS	250	1100	12000	<10			<10				<10									
Selenium (aqueous extractable)	mg/kg	1	MCERTS	3700	81000	730000	65			17				18									
Zinc (aqueous extractable)	mg/kg	1	MCERTS																				
Monoaromatics	ug/kg	1	MCERTS	200	140000	27000	<1.0			<1.0				<1.0									
Benzene	ug/kg	1	MCERTS	130000	5600000	5600000	<1.0			<1.0				<1.0									
Toluene	ug/kg	1	MCERTS	47000	2400000	2700000	<1.0			<1.0				<1.0									
Ethylbenzene	ug/kg	1	MCERTS	56000	4100000	5900000	<1.0			<1.0				<1.0									
p-xylene	ug/kg	1	MCERTS	60000	4100000	6600000	<1.0			<1.0				<1.0									
m-xylene	ug/kg	1	MCERTS				<1.0			<1.0				<1.0									
o-xylene	ug/kg	1	MCERTS				<1.0			<1.0				<1.0									
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS				<1.0			<1.0				<1.0									
Petroleum Hydrocarbons	mg/kg	10	NONE				<1.0			<1.0				<1.0									
Mineral Oil (C10 - C40)	mg/kg	0.001	MCERTS	42	570000	3200	<0.001			<0.001				<0.001									
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	100	600000	7800	<0.001			<0.001				<0.001									
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	27	13000	2000	<0.001			<0.001				<0.001									
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	130	13000	9700	<1.0			<1.0				<1.0									
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	2	MCERTS	100	13000	59000	2.4			<2.0				<2.0									
TPH-CWG - Aliphatic >EC12 - EC21	mg/kg	8	MCERTS	20	<8.0	<8.0	<8.0			<8.0				<8.0									
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	65000	250000	1600000	29			<10				<10									
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	70	5600	26000	<0.001			<0.001				<0.001									
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	130	5600	56000	<0.001			<0.001				<0.001									
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	34	5000	3500	<0.001			<0.001				<0.001									
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	74	5000	16000	<1.0			<1.0				<1.0									
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	2	MCERTS	140	5100	36000	9.8			<2.0				<2.0									
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	10	MCERTS	260	3800	28000	160			<10				<10									
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	1100	3800	28000	420			<10				<10									
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS				590			<10				<10									
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS				11			<10				<10									
VOCs	ug/kg	1	ISO 17025				<1.0			<1.0				<1.0									
Chloroethane	ug/kg	1	NONE				<1.0			<1.0				<1.0									
Bromomethane	ug/kg	1	ISO 17025				<1.0			<1.0				<1.0									
Vinyl Chloride	ug/kg	1	NONE				<1.0			<1.0				<1.0									
Trichlorofluoromethane	ug/kg	1	NONE				<1.0			<1.0				<1.0									
1,1-Dichloroethane	ug/kg	1	ISO 17025				<1.0			<1.0				<1.0									
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/kg	1	MCERTS				<1.0			<1.0				<1.0									
Cis-1,2-dichloroethane	ug/kg	1	MCERTS				<1.0			<1.0				<1.0									
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS				<1.0			<1.0				<1.0									
1,1-Dichloroethane	ug/kg	1	MCERTS				<1.0			<1.0				<1.0									
2,2-Dichloropropane	ug/kg	1	MCERTS				<1.0			<1.0				<1.0									
Trichloromethane	ug/kg	1	MCERTS				<1.0			<1.0				<1.0									
1,1,1-Trichloroethane	ug/kg	1	MCERTS				<1.0			<1.0				<1.0									

Sample Reference				WS24	WS27A			
Depth (m)				0.8	0.7			
Date Sampled				21/08/2018	22/08/2018			
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status	EQS	DWS	Mx		
General Inorganics								
pH	pH Units	N/A	ISO 17025			7.8	7.5	7.8
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025			660	550	660
Total Cyanide	µg/l	10	ISO 17025			<10	<10	<10
Sulphate as SO ₄	mg/l	0.045	ISO 17025		250	48	16.4	48
Sulphide	µg/l	5	NONE			<5.0	<5.0	<5.0
Total Phenols								
Total Phenols (monohydric)	µg/l	10	ISO 17025			<10	<10	<10
Speciated PAHs								
Naphthalene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Acenaphthylene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Acenaphthene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Fluorene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Phenanthrene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Anthracene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Fluoranthene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Pyrene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Chrysene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025			<0.01	<0.01	<0.01
Total PAH								
Total EPA-16 PAHs	µg/l	0.16	ISO 17025			<0.16	<0.16	<0.16
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	0.15	ISO 17025	50	10	3.23	3.23	0.88
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.25	5	1.2	1.2	0.02
Chromium (hexavalent)	µg/l	5	ISO 17025	3.4		6.5	<5.0	6.5
Chromium (dissolved)	µg/l	0.2	ISO 17025	4.7	50	11	<0.2	11
Copper (dissolved)	µg/l	0.5	ISO 17025	1	2000	3.8	3.1	3.8
Lead (dissolved)	µg/l	0.2	ISO 17025	1.2	10	7.4	7.4	0.5
Mercury (dissolved)	µg/l	0.05	ISO 17025	0.07	1	0	<0.05	<0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	4	20	1.8	1.8	1
Selenium (dissolved)	µg/l	0.6	ISO 17025		10	2.2	<0.6	2.2
Zinc (dissolved)	µg/l	0.5	ISO 17025	10.9	3000	2600	2600	1.4
Petroleum Hydrocarbons								
Petroleum Range Organics (C6 - C10)	µg/l	10	ISO 17025			<10.0	<10.0	<10.0
Diesel Range Organics (C10 - C25)	µg/l	10	NONE			<10	<10	<10
TPH1 (C10 - C40)	µg/l	10	NONE			<10	<10	<10
VOCs								
Chloroethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Chloroethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Bromomethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Vinyl Chloride	µg/l	1	NONE			<1.0	<1.0	<1.0
Trichlorofluoromethane	µg/l	1	NONE			<1.0	<1.0	<1.0
1,1-Dichloroethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Cis-1,2-dichloroethene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
MIBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,1-Dichloroethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
2,2-Dichloropropane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Trichloromethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,1,1-Trichloroethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,2-Dichloroethene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,1-Dichloropropane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Trans-1,2-dichloroethene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Benzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Tetrachloromethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,2-Dichloropropane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Trichloroethene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Dibromomethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Bromodichloromethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Cis-1,3-dichloropropene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Trans-1,3-dichloropropene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Toluene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,3-Dichloropropane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Dibromochloromethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Tetrachloroethene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,2-Dibromoethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Chlorobenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Ethylbenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
p & m-Xylene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Styrene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Trifluoromethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
o-Xylene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Isopropylbenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Bromobenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
n-Propylbenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
2-Chlorotoluene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
4-Chlorotoluene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
tert-Butylbenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,2,4-Trimethylbenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
sec-Butylbenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,3-Dichlorobenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
p-Isopropyltoluene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,2-Dichlorobenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,4-Dichlorobenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Butylbenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
Hexachlorobutadiene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
1,2,3-Trichlorobenzene	µg/l	1	ISO 17025			<1.0	<1.0	<1.0
SVOCs								
Aniline	µg/l	0.05	NONE			<0.05	<0.05	
Phenol	µg/l	0.05	NONE			<0.05	<0.05	
2-Chlorophenol	µg/l	0.05	NONE			<0.05	<0.05	
Bis(2-chloroethyl)ether	µg/l	0.05	NONE			<0.05	<0.05	
1,3-Dichlorobenzene	µg/l	0.05	NONE			<0.05	<0.05	
1,2-Dichlorobenzene	µg/l	0.05	NONE			<0.05	<0.05	
1,4-Dichlorobenzene	µg/l	0.05	NONE			<0.05	<0.05	
Bis(2-chloroisopropyl)ether	µg/l	0.05	NONE			<0.05	<0.05	
2-Methylphenol	µg/l	0.05	NONE			<0.05	<0.05	
Hexachloroethane	µg/l	0.05	NONE			<0.05	<0.05	
Nitrobenzene	µg/l	0.05	NONE			<0.05	<0.05	
4-Methylphenol	µg/l	0.05	NONE			<0.05	<0.05	
Isophorone	µg/l	0.05	NONE			<0.05	<0.05	
2-Nitrophenol	µg/l	0.05	NONE			<0.05	<0.05	
2,4-Dimethylphenol	µg/l	0.05	NONE			<0.05	<0.05	
Bis(2-chloroethoxy)methane	µg/l	0.05	NONE			<0.05	<0.05	
1,2,4-Trichlorobenzene	µg/l	0.05	NONE			<0.05	<0.05	
Naphthalene	µg/l	0.01	ISO 17025			<0.01	<0.01	
2,4-Dichlorophenol	µg/l	0.05	NONE			<0.05	<0.05	
4-Chloroaniline	µg/l	0.05	NONE			<0.05	<0.05	
Hexachlorobutadiene	µg/l	0.05	NONE			<0.05	<0.05	
4-Chloro-3-methylphenol	µg/l	0.05	NONE			<0.05	<0.05	
2,4,6-Trichlorophenol	µg/l	0.05	NONE			<0.05	<0.05	
2,4,5-Trichlorophenol	µg/l	0.05	NONE			<0.05	<0.05	
2-Methylnaphthalene	µg/l	0.05	NONE			<0.05	<0.05	
2-Chloronaphthalene	µg/l	0.05	NONE			<0.05	<0.05	
Dimethylphthalate	µg/l	0.05	NONE			<0.05	<0.05	
2,6-Dinitrotoluene	µg/l	0.05	NONE			<0.05	<0.05	
Acenaphthylene	µg/l	0.01	ISO 17025			<0.01	<0.01	
Acenaphthene	µg/l	0.01	ISO 17025			<0.01	<0.01	
2,4-Dinitrotoluene	µg/l	0.05	NONE			<0.05	<0.05	
Dibenzofuran	µg/l	0.05	NONE			<0.05	<0.05	
4-Chlorophenyl phenyl ether	µg/l	0.05	NONE			<0.05	<0.05	
Diethyl phthalate	µg/l	0.05	NONE			<0.05	<0.05	
4-Nitroaniline	µg/l	0.05	NONE			<0.05	<0.05	
Fluorene	µg/l	0.01	ISO 17025			<0.01	<0.01	
Azobenzene	µg/l	0.05	NONE			<0.05	<0.05	
Bromophenyl phenyl ether	µg/l	0.05	NONE			<0.05		



Paul A.

Leap Environmental Ltd
The Atrium
Curtis Road
Dorking
Surrey
RH4 1XA

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

t: 01306646510
f: 01306646511
e: pa@leapenvironmental.com

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 18-97564

Replaces Analytical Report Number : 18-97564, issue no. 1

Project / Site name:	Carrow Works	Samples received on:	22/08/2018
Your job number:	LP01671	Samples instructed on:	22/08/2018
Your order number:	LPO8079	Analysis completed by:	13/09/2018
Report Issue Number:	2	Report issued on:	13/09/2018
Samples Analysed:	21 soil samples - 1 water sample		

Signed: 

Jordan Hill
Reporting Manager
For & on behalf of i2 Analytical Ltd.

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

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

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029685	1029686	1029687	1029688	1029689			
Sample Reference	WS1A	WS2	WS2	WS3	WS23			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.10	0.30	0.80	0.20	0.20			
Date Sampled	21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	37	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	5.9	7.1	13	3.4	3.6
Total mass of sample received	kg	0.001	NONE	1.4	1.2	1.3	1.2	1.3

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.0	8.7	-	8.4	10.8
Total Organic Carbon (TOC)	%	0.1	MCERTS	2.7	1.8	-	3.5	1.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	2.3	0.81	-	4.0	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	4.7	1.9	-	5.2	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	50	3.4	-	21	< 0.05
Fluorene	mg/kg	0.05	MCERTS	37	3.3	-	19	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	290	27	-	190	0.42
Anthracene	mg/kg	0.05	MCERTS	67	8.7	-	59	0.23
Fluoranthene	mg/kg	0.05	MCERTS	380	82	-	250	1.7
Pyrene	mg/kg	0.05	MCERTS	310	71	-	210	1.6
Benzo(a)anthracene	mg/kg	0.05	MCERTS	150	50	-	97	0.98
Chrysene	mg/kg	0.05	MCERTS	100	33	-	75	0.79
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	160	67	-	92	1.0
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	57	28	-	51	0.54
Benzo(a)pyrene	mg/kg	0.05	MCERTS	140	57	-	91	0.91
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	78	30	-	50	0.42
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	18	8.1	-	11	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	89	34	-	54	0.56

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	1940	506	-	1280	9.20
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.0	7.1	-	5.6	9.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	0.4	-	1.1	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	-	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	99	14	-	38	20
Copper (aqua regia extractable)	mg/kg	1	MCERTS	22	27	-	56	23
Lead (aqua regia extractable)	mg/kg	1	MCERTS	28	63	-	160	27
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	7.6	7.4	-	14	22
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	59	66	-	130	150



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029685			1029686			1029687			1029688			1029689		
Sample Reference	WS1A			WS2			WS2			WS3			WS23		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.10			0.30			0.80			0.20			0.20		
Date Sampled	21/08/2018			21/08/2018			21/08/2018			21/08/2018			21/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Parameter	Units	Limit of detection	Accreditation Status	1029685	1029686	1029687	1029688	1029689
Benzene	ug/kg	1	MCERTS	< 1.0	-	-	-	-
Toluene	ug/kg	1	MCERTS	< 1.0	-	-	-	-
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	-	-	-	-
p & m-xylene	ug/kg	1	MCERTS	< 1.0	-	-	-	-
o-xylene	ug/kg	1	MCERTS	< 1.0	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	-	-	-	-

Petroleum Hydrocarbons

Parameter	Units	Limit of detection	Accreditation Status	1029685	1029686	1029687	1029688	1029689
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	120	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	330	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	1300	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	1700	-	-	-	-

Parameter	Units	Limit of detection	Accreditation Status	1029685	1029686	1029687	1029688	1029689
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	5.6	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	720	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	4800	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	10000	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	15000	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029685	1029686	1029687	1029688	1029689
Sample Reference	WS1A	WS2	WS2	WS3	WS23
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.10	0.30	0.80	0.20	0.20
Date Sampled	21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

VOCs

Compound	Units	Limit of detection	Accreditation Status	1029685	1029686	1029687	1029688	1029689
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	-	-	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1-Dichloroethane	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	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029685				1029686				1029687				1029688				1029689			
Sample Reference	WS1A				WS2				WS2				WS3				WS23			
Sample Number	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Depth (m)	0.10				0.30				0.80				0.20				0.20			
Date Sampled	21/08/2018				21/08/2018				21/08/2018				21/08/2018				21/08/2018			
Time Taken	None Supplied				None Supplied				None Supplied				None Supplied				None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status																	

SVOCs																		
Analytical Parameter	Units	Limit of detection	Accreditation Status	1029685	1029686	1029687	1029688	1029689	1029685	1029686	1029687	1029688	1029689	1029685	1029686	1029687	1029688	1029689
Aniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029685			1029686			1029687			1029688			1029689		
Sample Reference	WS1A			WS2			WS2			WS3			WS23		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.10			0.30			0.80			0.20			0.20		
Date Sampled	21/08/2018			21/08/2018			21/08/2018			21/08/2018			21/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Environmental Forensics

PFAS Suite 3

Compound	Units	Limit of detection	Accreditation Status	1029685	1029686	1029687	1029688	1029689
PFBS C4 Sulphonate	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PHPS C5 Sulphonate	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFHxS C6 Sulphonate	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFHpS C7 Sulphonate	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFOS C8 Sulphonate	ug/kg	0.1	NONE	0.7	-	0.4	0.5	-
PFNS C9 Sulphonate	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFDS C10 Sulphonate	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFUdS C11 Sulphonate	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFDoS C12 Sulphonate	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFBA C4 Carboxylic acid	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFPeA C5 Carboxylic acid	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFHxA C6 Carboxylic acid	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFHpA C7 Carboxylic acid	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFOA C8 Carboxylic acid	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFNA C9 Carboxylic acid	ug/kg	0.1	NONE	< 0.1	-	< 0.1	2.6	-
PFDA C10 Carboxylic acid	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFUdA C11 Carboxylic acid	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
PFDoA C12 Carboxylic acid	ug/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029690	1029691	1029692	1029693	1029694			
Sample Reference	WS23	WS24	WS24	WS25	WS25			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	3.75	0.08-0.28	0.62-0.80	0.60	1.00			
Date Sampled	21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	24	6.6	17	11	13
Total mass of sample received	kg	0.001	NONE	1.2	1.3	1.4	1.2	1.1

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile	Chrysotile & Amosite	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	Detected	Detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	< 0.001	< 0.001	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	< 0.001	< 0.001	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-	10.8	8.1	9.4	8.3
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	1.0	2.5	0.4	0.9

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	0.24	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	0.94	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	1.2	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	-	7.5	0.29	0.17	0.18
Anthracene	mg/kg	0.05	MCERTS	-	2.0	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	7.6	0.56	0.50	0.33
Pyrene	mg/kg	0.05	MCERTS	-	5.9	0.45	0.55	0.30
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	3.1	0.29	0.31	0.26
Chrysene	mg/kg	0.05	MCERTS	-	2.2	0.32	0.30	0.18
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	2.8	0.40	0.64	0.34
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	1.3	0.19	0.26	0.17
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	2.5	0.27	0.54	0.26
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	1.2	< 0.05	0.29	0.17
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	1.3	< 0.05	0.37	0.18

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	39.8	2.77	3.93	2.37
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	8.5	20	7.3	14
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	1.1	88	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	-	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	12	17	14	10
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	40	9800	16	34
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	190	24000	130	110
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	14	16	11	13
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	1300	150000	63	46



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029690			1029691		1029692		1029693		1029694	
Sample Reference	WS23			WS24		WS24		WS25		WS25	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	3.75			0.08-0.28		0.62-0.80		0.60		1.00	
Date Sampled	21/08/2018			21/08/2018		21/08/2018		21/08/2018		21/08/2018	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								

Monoaromatics

Parameter	Units	Limit of detection	Accreditation Status	1029690	1029691	1029692	1029693	1029694
Benzene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Toluene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
p & m-xylene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
o-xylene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-

Petroleum Hydrocarbons

Parameter	Units	Limit of detection	Accreditation Status	1029690	1029691	1029692	1029693	1029694
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	< 2.0	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	-	17	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	-	270	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	-	290	-	-

Parameter	Units	Limit of detection	Accreditation Status	1029690	1029691	1029692	1029693	1029694
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	< 2.0	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	-	< 10	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	-	250	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	-	260	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029690	1029691	1029692	1029693	1029694
Sample Reference				WS23	WS24	WS24	WS25	WS25
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.75	0.08-0.28	0.62-0.80	0.60	1.00
Date Sampled				21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Tribromomethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029690	1029691	1029692	1029693	1029694
Sample Reference				WS23	WS24	WS24	WS25	WS25
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.75	0.08-0.28	0.62-0.80	0.60	1.00
Date Sampled				21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	0.29	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	0.56	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	0.45	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	0.29	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	0.32	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.40	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	0.19	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	0.27	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	< 0.05	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029690	1029691	1029692	1029693	1029694
Sample Reference	WS23	WS24	WS24	WS25	WS25
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	3.75	0.08-0.28	0.62-0.80	0.60	1.00
Date Sampled	21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Environmental Forensics

PFAS Suite 3

Compound	Units	Limit of detection	Accreditation Status	1029690	1029691	1029692	1029693	1029694
PFBS C4 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PHPS C5 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFHxS C6 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFHpS C7 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFOS C8 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFNS C9 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFDS C10 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFUdS C11 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFDoS C12 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFBA C4 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFPeA C5 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFHxA C6 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFHpA C7 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFOA C8 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFNA C9 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFDA C10 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFUdA C11 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFDoA C12 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029695	1029696	1029697	1029698	1029699			
Sample Reference	WS25	WS50	WS51	WS52	WS52			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	3.00	0.40	0.50	0.06-0.28	4.80			
Date Sampled	21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	20	11	9.0	4.6	4.2
Total mass of sample received	kg	0.001	NONE	1.1	0.72	1.1	1.3	1.3

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	Not-detected	Not-detected	-
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-	8.5	8.7	8.5	-
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	1.0	0.9	3.3	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	1.9	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	7.2	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	0.62	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	1.4	-
Phenanthrene	mg/kg	0.05	MCERTS	-	0.18	0.71	23	-
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	0.20	10	-
Fluoranthene	mg/kg	0.05	MCERTS	-	0.27	1.1	54	-
Pyrene	mg/kg	0.05	MCERTS	-	0.27	0.96	49	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.16	0.64	31	-
Chrysene	mg/kg	0.05	MCERTS	-	0.21	0.67	34	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	0.28	1.1	58	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.15	0.38	26	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.24	0.86	53	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	0.44	44	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	11	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	0.55	55	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	1.76	7.62	459	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	8.2	7.7	8.2	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	< 0.2	-
Chromium (hexavalent)	mg/kg	4	MCERTS	-	< 4.0	< 4.0	< 4.0	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	10	7.9	13	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	74	52	54	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	80	64	42	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	0.7	0.4	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	11	9.9	15	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	63	40	61	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029695			1029696			1029697			1029698			1029699		
Sample Reference	WS25			WS50			WS51			WS52			WS52		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	3.00			0.40			0.50			0.06-0.28			4.80		
Date Sampled	21/08/2018			21/08/2018			21/08/2018			21/08/2018			21/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Parameter	Units	Limit of detection	Accreditation Status	1029695	1029696	1029697	1029698	1029699
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

Parameter	Units	Limit of detection	Accreditation Status	1029695	1029696	1029697	1029698	1029699
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	23	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	190	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	220	< 10

Parameter	Units	Limit of detection	Accreditation Status	1029695	1029696	1029697	1029698	1029699
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	13	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	21	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	170	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	910	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	10	< 10	1100	< 10



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029695	1029696	1029697	1029698	1029699
Sample Reference				WS25	WS50	WS51	WS52	WS52
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	0.40	0.50	0.06-0.28	4.80
Date Sampled				21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	-	-	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	-	-
1,1-Dichloroethane	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	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029695	1029696	1029697	1029698	1029699
Sample Reference				WS25	WS50	WS51	WS52	WS52
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.00	0.40	0.50	0.06-0.28	4.80
Date Sampled				21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029695	1029696	1029697	1029698	1029699
Sample Reference	WS25	WS50	WS51	WS52	WS52
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	3.00	0.40	0.50	0.06-0.28	4.80
Date Sampled	21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Environmental Forensics

PFAS Suite 3

Compound	Units	Limit of detection	Accreditation Status	1029695	1029696	1029697	1029698	1029699
PFBS C4 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PHPS C5 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFHxS C6 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFHpS C7 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFOS C8 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFNS C9 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFDS C10 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFUdS C11 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFDoS C12 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFBA C4 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFPeA C5 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFHxA C6 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFHpA C7 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFOA C8 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFNA C9 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFDA C10 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFUdA C11 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFDoA C12 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1029700	1029701	1029702	1029703	1029704			
Sample Reference	WS53	WS54	HP3	HP4	HP5			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.40	0.30	0.30	0.00-0.50	0.00-0.60			
Date Sampled	21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	9.1	7.1	6.3	6.8	6.2
Total mass of sample received	kg	0.001	NONE	1.3	1.2	0.44	0.67	0.44

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.7	11.1	8.7	8.8	8.3
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.9	0.5	1.1	2.2	2.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.13
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.33	0.30
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.29	0.26
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.21	0.17
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.25	0.18
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.44	0.30
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.21	0.19
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.38	0.27
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.18	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	0.25	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	< 0.80	2.54	1.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.1	7.3	75	42	16
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	12	15	12	14	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	180	180	40	42	40
Lead (aqua regia extractable)	mg/kg	1	MCERTS	62	31	120	300	360
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.7	0.7	0.9
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	11	22	14	16	14
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	45	33	100	120	85



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029700	1029701	1029702	1029703	1029704
Sample Reference				WS53	WS54	HP3	HP4	HP5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.30	0.30	0.00-0.50	0.00-0.60
Date Sampled				21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics

	Units	Limit of detection	Accreditation Status	1029700	1029701	1029702	1029703	1029704
Benzene	ug/kg	1	MCERTS	-	-	-	-	-
Toluene	ug/kg	1	MCERTS	-	-	-	-	-
Ethylbenzene	ug/kg	1	MCERTS	-	-	-	-	-
p & m-xylene	ug/kg	1	MCERTS	-	-	-	-	-
o-xylene	ug/kg	1	MCERTS	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	-	-	-	-

Petroleum Hydrocarbons

	Units	Limit of detection	Accreditation Status	1029700	1029701	1029702	1029703	1029704
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-

	Units	Limit of detection	Accreditation Status	1029700	1029701	1029702	1029703	1029704
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029700	1029701	1029702	1029703	1029704
Sample Reference				WS53	WS54	HP3	HP4	HP5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.30	0.30	0.00-0.50	0.00-0.60
Date Sampled				21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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	-	-	-	-	-
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	-	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029700	1029701	1029702	1029703	1029704
Sample Reference				WS53	WS54	HP3	HP4	HP5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.30	0.30	0.00-0.50	0.00-0.60
Date Sampled				21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029700	1029701	1029702	1029703	1029704
Sample Reference				WS53	WS54	HP3	HP4	HP5
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40	0.30	0.30	0.00-0.50	0.00-0.60
Date Sampled				21/08/2018	21/08/2018	21/08/2018	21/08/2018	21/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Environmental Forensics

PFAS Suite 3

Compound	Units	Limit of detection	Accreditation Status	1029700	1029701	1029702	1029703	1029704
PFBS C4 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PHPS C5 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFHxS C6 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFHpS C7 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFOS C8 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFNS C9 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFDS C10 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFUdS C11 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFDoS C12 Sulphonate	ug/kg	0.1	NONE	-	-	-	-	-
PFBA C4 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFPeA C5 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFHxA C6 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFHpA C7 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFOA C8 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFNA C9 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFDA C10 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFUdA C11 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-
PFDoA C12 Carboxylic acid	ug/kg	0.1	NONE	-	-	-	-	-



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029705				
Sample Reference				HP6				
Sample Number				None Supplied				
Depth (m)				0.20-0.30				
Date Sampled				21/08/2018				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1				
Moisture Content	%	N/A	NONE	5.5				
Total mass of sample received	kg	0.001	NONE	0.46				

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-				
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected				
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-				
Asbestos Quantification Total	%	0.001	ISO 17025	-				

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.1				
Total Organic Carbon (TOC)	%	0.1	MCERTS	2.0				

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05				
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05				
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05				
Fluorene	mg/kg	0.05	MCERTS	< 0.05				
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05				
Anthracene	mg/kg	0.05	MCERTS	< 0.05				
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05				
Pyrene	mg/kg	0.05	MCERTS	< 0.05				
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05				
Chrysene	mg/kg	0.05	MCERTS	< 0.05				
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05				
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05				
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05				
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05				
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05				

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80				
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14				
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2				
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0				
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15				
Copper (aqua regia extractable)	mg/kg	1	MCERTS	29				
Lead (aqua regia extractable)	mg/kg	1	MCERTS	170				
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5				
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15				
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0				
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	57				



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029705				
Sample Reference				HP6				
Sample Number				None Supplied				
Depth (m)				0.20-0.30				
Date Sampled				21/08/2018				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics

Benzene	ug/kg	1	MCERTS	-				
Toluene	ug/kg	1	MCERTS	-				
Ethylbenzene	ug/kg	1	MCERTS	-				
p & m-xylene	ug/kg	1	MCERTS	-				
o-xylene	ug/kg	1	MCERTS	-				
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-				

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-				
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-				
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-				
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-				
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-				

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-				
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-				
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-				
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-				
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-				
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-				



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029705				
Sample Reference				HP6				
Sample Number				None Supplied				
Depth (m)				0.20-0.30				
Date Sampled				21/08/2018				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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	-				
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	-				



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029705				
Sample Reference				HP6				
Sample Number				None Supplied				
Depth (m)				0.20-0.30				
Date Sampled				21/08/2018				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-				
Phenol	mg/kg	0.2	ISO 17025	-				
2-Chlorophenol	mg/kg	0.1	MCERTS	-				
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-				
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-				
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-				
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-				
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-				
2-Methylphenol	mg/kg	0.3	MCERTS	-				
Hexachloroethane	mg/kg	0.05	MCERTS	-				
Nitrobenzene	mg/kg	0.3	MCERTS	-				
4-Methylphenol	mg/kg	0.2	NONE	-				
Isophorone	mg/kg	0.2	MCERTS	-				
2-Nitrophenol	mg/kg	0.3	MCERTS	-				
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-				
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-				
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-				
Naphthalene	mg/kg	0.05	MCERTS	-				
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-				
4-Chloroaniline	mg/kg	0.1	NONE	-				
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-				
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-				
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-				
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-				
2-Methylnaphthalene	mg/kg	0.1	NONE	-				
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-				
Dimethylphthalate	mg/kg	0.1	MCERTS	-				
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-				
Acenaphthylene	mg/kg	0.05	MCERTS	-				
Acenaphthene	mg/kg	0.05	MCERTS	-				
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-				
Dibenzofuran	mg/kg	0.2	MCERTS	-				
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-				
Diethyl phthalate	mg/kg	0.2	MCERTS	-				
4-Nitroaniline	mg/kg	0.2	MCERTS	-				
Fluorene	mg/kg	0.05	MCERTS	-				
Azobenzene	mg/kg	0.3	MCERTS	-				
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-				
Hexachlorobenzene	mg/kg	0.3	MCERTS	-				
Phenanthrene	mg/kg	0.05	MCERTS	-				
Anthracene	mg/kg	0.05	MCERTS	-				
Carbazole	mg/kg	0.3	MCERTS	-				
Dibutyl phthalate	mg/kg	0.2	MCERTS	-				
Anthraquinone	mg/kg	0.3	MCERTS	-				
Fluoranthene	mg/kg	0.05	MCERTS	-				
Pyrene	mg/kg	0.05	MCERTS	-				
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-				
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-				
Chrysene	mg/kg	0.05	MCERTS	-				
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-				
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-				
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-				
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-				
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-				
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-				



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029705				
Sample Reference				HP6				
Sample Number				None Supplied				
Depth (m)				0.20-0.30				
Date Sampled				21/08/2018				
Time Taken				None Supplied				
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Environmental Forensics

PFAS Suite 3

PFBS C4 Sulphonate	ug/kg	0.1	NONE	-				
PHPS C5 Sulphonate	ug/kg	0.1	NONE	-				
PFHxS C6 Sulphonate	ug/kg	0.1	NONE	-				
PFHpS C7 Sulphonate	ug/kg	0.1	NONE	-				
PFOS C8 Sulphonate	ug/kg	0.1	NONE	-				
PFNS C9 Sulphonate	ug/kg	0.1	NONE	-				
PFDS C10 Sulphonate	ug/kg	0.1	NONE	-				
PFUdS C11 Sulphonate	ug/kg	0.1	NONE	-				
PFDoS C12 Sulphonate	ug/kg	0.1	NONE	-				
PFBA C4 Carboxylic acid	ug/kg	0.1	NONE	-				
PFPeA C5 Carboxylic acid	ug/kg	0.1	NONE	-				
PFHxA C6 Carboxylic acid	ug/kg	0.1	NONE	-				
PFHpA C7 Carboxylic acid	ug/kg	0.1	NONE	-				
PFOA C8 Carboxylic acid	ug/kg	0.1	NONE	-				
PFNA C9 Carboxylic acid	ug/kg	0.1	NONE	-				
PFDA C10 Carboxylic acid	ug/kg	0.1	NONE	-				
PFUdA C11 Carboxylic acid	ug/kg	0.1	NONE	-				
PFDoA C12 Carboxylic acid	ug/kg	0.1	NONE	-				



Analytical Report Number: 18-97564
Project / Site name: Carrow Works
Your Order No: LPO8079

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

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

Quantitative Analysis

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

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

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

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1029691	WS24	0.08-0.28	143	Loose Fibres	Chrysotile	< 0.001	< 0.001
1029692	WS24	0.62-0.80	129	Loose Fibres	Chrysotile & Amosite	< 0.001	< 0.001

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



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029706				
Sample Reference				WS24				
Sample Number				None Supplied				
Depth (m)				0.80				
Date Sampled				21/08/2018				
Time Taken				None Supplied				
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

General Inorganics

pH	pH Units	N/A	ISO 17025	7.5				
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	550				
Total Cyanide	µg/l	10	ISO 17025	< 10				
Sulphate as SO ₄	µg/l	45	ISO 17025	16400				
Sulphate as SO ₄	mg/l	0.045	ISO 17025	16.4				
Sulphide	µg/l	5	NONE	< 5.0				

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10				
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Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01				
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01				
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01				
Fluorene	µg/l	0.01	ISO 17025	< 0.01				
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01				
Anthracene	µg/l	0.01	ISO 17025	< 0.01				
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01				
Pyrene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01				
Chrysene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01				
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01				

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16				
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	0.15	ISO 17025	3.23				
Cadmium (dissolved)	µg/l	0.02	ISO 17025	1.2				
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0				
Chromium (dissolved)	µg/l	0.2	ISO 17025	< 0.2				
Copper (dissolved)	µg/l	0.5	ISO 17025	3.1				
Lead (dissolved)	µg/l	0.2	ISO 17025	7.4				
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05				
Nickel (dissolved)	µg/l	0.5	ISO 17025	1.8				
Selenium (dissolved)	µg/l	0.6	ISO 17025	< 0.6				
Zinc (dissolved)	µg/l	0.5	ISO 17025	2600				

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10)	µg/l	10	ISO 17025	< 10.0				
Diesel Range Organics (C10 - C25)	µg/l	10	NONE	< 10				
TPH1 (C10 - C40)	µg/l	10	NONE	< 10				



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029706				
Sample Reference				WS24				
Sample Number				None Supplied				
Depth (m)				0.80				
Date Sampled				21/08/2018				
Time Taken				None Supplied				
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

VOCs

Chloromethane	µg/l	1	ISO 17025	< 1.0				
Chloroethane	µg/l	1	ISO 17025	< 1.0				
Bromomethane	µg/l	1	ISO 17025	< 1.0				
Vinyl Chloride	µg/l	1	NONE	< 1.0				
Trichlorofluoromethane	µg/l	1	NONE	< 1.0				
1,1-Dichloroethene	µg/l	1	ISO 17025	< 1.0				
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	1	ISO 17025	< 1.0				
Cis-1,2-dichloroethene	µg/l	1	ISO 17025	< 1.0				
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0				
1,1-Dichloroethane	µg/l	1	ISO 17025	< 1.0				
2,2-Dichloropropane	µg/l	1	ISO 17025	< 1.0				
Trichloromethane	µg/l	1	ISO 17025	< 1.0				
1,1,1-Trichloroethane	µg/l	1	ISO 17025	< 1.0				
1,2-Dichloroethane	µg/l	1	ISO 17025	< 1.0				
1,1-Dichloropropene	µg/l	1	ISO 17025	< 1.0				
Trans-1,2-dichloroethene	µg/l	1	ISO 17025	< 1.0				
Benzene	µg/l	1	ISO 17025	< 1.0				
Tetrachloromethane	µg/l	1	ISO 17025	< 1.0				
1,2-Dichloropropane	µg/l	1	ISO 17025	< 1.0				
Trichloroethene	µg/l	1	ISO 17025	< 1.0				
Dibromomethane	µg/l	1	ISO 17025	< 1.0				
Bromodichloromethane	µg/l	1	ISO 17025	< 1.0				
Cis-1,3-dichloropropene	µg/l	1	ISO 17025	< 1.0				
Trans-1,3-dichloropropene	µg/l	1	ISO 17025	< 1.0				
Toluene	µg/l	1	ISO 17025	< 1.0				
1,1,2-Trichloroethane	µg/l	1	ISO 17025	< 1.0				
1,3-Dichloropropane	µg/l	1	ISO 17025	< 1.0				
Dibromochloromethane	µg/l	1	ISO 17025	< 1.0				
Tetrachloroethene	µg/l	1	ISO 17025	< 1.0				
1,2-Dibromoethane	µg/l	1	ISO 17025	< 1.0				
Chlorobenzene	µg/l	1	ISO 17025	< 1.0				
1,1,1,2-Tetrachloroethane	µg/l	1	ISO 17025	< 1.0				
Ethylbenzene	µg/l	1	ISO 17025	< 1.0				
p & m-Xylene	µg/l	1	ISO 17025	< 1.0				
Styrene	µg/l	1	ISO 17025	< 1.0				
Tribromomethane	µg/l	1	ISO 17025	< 1.0				
o-Xylene	µg/l	1	ISO 17025	< 1.0				
1,1,2,2-Tetrachloroethane	µg/l	1	ISO 17025	< 1.0				
Isopropylbenzene	µg/l	1	ISO 17025	< 1.0				
Bromobenzene	µg/l	1	ISO 17025	< 1.0				
n-Propylbenzene	µg/l	1	ISO 17025	< 1.0				
2-Chlorotoluene	µg/l	1	ISO 17025	< 1.0				
4-Chlorotoluene	µg/l	1	ISO 17025	< 1.0				
1,3,5-Trimethylbenzene	µg/l	1	ISO 17025	< 1.0				
tert-Butylbenzene	µg/l	1	ISO 17025	< 1.0				
1,2,4-Trimethylbenzene	µg/l	1	ISO 17025	< 1.0				
sec-Butylbenzene	µg/l	1	ISO 17025	< 1.0				
1,3-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0				
p-Isopropyltoluene	µg/l	1	ISO 17025	< 1.0				
1,2-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0				
1,4-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0				
Butylbenzene	µg/l	1	ISO 17025	< 1.0				
1,2-Dibromo-3-chloropropane	µg/l	1	ISO 17025	< 1.0				
1,2,4-Trichlorobenzene	µg/l	1	ISO 17025	< 1.0				
Hexachlorobutadiene	µg/l	1	ISO 17025	< 1.0				
1,2,3-Trichlorobenzene	µg/l	1	ISO 17025	< 1.0				



Analytical Report Number: 18-97564

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1029706				
Sample Reference				WS24				
Sample Number				None Supplied				
Depth (m)				0.80				
Date Sampled				21/08/2018				
Time Taken				None Supplied				
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

SVOCs								
Analytical Parameter	Units	Limit of detection	Accreditation Status	Result				
Aniline	µg/l	0.05	NONE	< 0.05				
Phenol	µg/l	0.05	NONE	< 0.05				
2-Chlorophenol	µg/l	0.05	NONE	< 0.05				
Bis(2-chloroethyl)ether	µg/l	0.05	NONE	< 0.05				
1,3-Dichlorobenzene	µg/l	0.05	NONE	< 0.05				
1,2-Dichlorobenzene	µg/l	0.05	NONE	< 0.05				
1,4-Dichlorobenzene	µg/l	0.05	NONE	< 0.05				
Bis(2-chloroisopropyl)ether	µg/l	0.05	NONE	< 0.05				
2-Methylphenol	µg/l	0.05	NONE	< 0.05				
Hexachloroethane	µg/l	0.05	NONE	< 0.05				
Nitrobenzene	µg/l	0.05	NONE	< 0.05				
4-Methylphenol	µg/l	0.05	NONE	< 0.05				
Isophorone	µg/l	0.05	NONE	< 0.05				
2-Nitrophenol	µg/l	0.05	NONE	< 0.05				
2,4-Dimethylphenol	µg/l	0.05	NONE	< 0.05				
Bis(2-chloroethoxy)methane	µg/l	0.05	NONE	< 0.05				
1,2,4-Trichlorobenzene	µg/l	0.05	NONE	< 0.05				
Naphthalene	µg/l	0.01	ISO 17025	< 0.01				
2,4-Dichlorophenol	µg/l	0.05	NONE	< 0.05				
4-Chloroaniline	µg/l	0.05	NONE	< 0.05				
Hexachlorobutadiene	µg/l	0.05	NONE	< 0.05				
4-Chloro-3-methylphenol	µg/l	0.05	NONE	< 0.05				
2,4,6-Trichlorophenol	µg/l	0.05	NONE	< 0.05				
2,4,5-Trichlorophenol	µg/l	0.05	NONE	< 0.05				
2-Methylnaphthalene	µg/l	0.05	NONE	< 0.05				
2-Chloronaphthalene	µg/l	0.05	NONE	< 0.05				
Dimethylphthalate	µg/l	0.05	NONE	< 0.05				
2,6-Dinitrotoluene	µg/l	0.05	NONE	< 0.05				
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01				
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01				
2,4-Dinitrotoluene	µg/l	0.05	NONE	< 0.05				
Dibenzofuran	µg/l	0.05	NONE	< 0.05				
4-Chlorophenyl phenyl ether	µg/l	0.05	NONE	< 0.05				
Diethyl phthalate	µg/l	0.05	NONE	< 0.05				
4-Nitroaniline	µg/l	0.05	NONE	< 0.05				
Fluorene	µg/l	0.01	ISO 17025	< 0.01				
Azobenzene	µg/l	0.05	NONE	< 0.05				
Bromophenyl phenyl ether	µg/l	0.05	NONE	< 0.05				
Hexachlorobenzene	µg/l	0.05	NONE	< 0.05				
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01				
Anthracene	µg/l	0.01	ISO 17025	< 0.01				
Carbazole	µg/l	0.05	NONE	< 0.05				
Dibutyl phthalate	µg/l	0.05	NONE	< 0.05				
Anthraquinone	µg/l	0.05	NONE	< 0.05				
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01				
Pyrene	µg/l	0.01	ISO 17025	< 0.01				
Butyl benzyl phthalate	µg/l	0.05	NONE	< 0.05				
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01				
Chrysene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01				
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01				

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



Analytical Report Number : 18-97564

Project / Site name: Carrow Works

* 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 *
1029685	WS1A	None Supplied	0.10	Black gravelly sand with rubble.
1029686	WS2	None Supplied	0.30	Grey gravelly clay with stones and chalk.
1029687	WS2	None Supplied	0.80	Light brown clay with chalk.
1029688	WS3	None Supplied	0.20	Grey sandy loam with gravel and rubble.
1029689	WS23	None Supplied	0.20	Light grey sand with gravel.
1029690	WS23	None Supplied	3.75	Beige chalk with gravel. **
1029691	WS24	None Supplied	0.08-0.28	Brown sandy loam with gravel and rubble.
1029692	WS24	None Supplied	0.62-0.80	Black sandy loam with gravel and rubble.
1029693	WS25	None Supplied	0.60	Red gravelly sand with brick and rubble.
1029694	WS25	None Supplied	1.00	Grey clay and loam with chalk and rubble.
1029695	WS25	None Supplied	3.00	Beige chalk with gravel. **
1029696	WS50	None Supplied	0.40	Brown loam and clay with gravel and rubble.
1029697	WS51	None Supplied	0.50	Brown sandy loam with gravel.
1029698	WS52	None Supplied	0.06-0.28	Grey gravelly loam with rubble.
1029699	WS52	None Supplied	4.80	Grey gravelly sand with rubble.
1029700	WS53	None Supplied	0.40	Brown sandy loam with gravel.
1029701	WS54	None Supplied	0.30	Grey clay and loam with gravel and rubble.
1029702	HP3	None Supplied	0.30	Grey sandy loam with gravel.
1029703	HP4	None Supplied	0.00-0.50	Grey sandy loam with gravel.
1029704	HP5	None Supplied	0.00-0.60	Grey sandy loam with gravel and vegetation.
1029705	HP6	None Supplied	0.20-0.30	Brown loam and sand with gravel and brick.

** Non MCERTS matrix.



Analytical Report Number : 18-97564

Project / Site name: Carrow Works

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
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
EF - PFAS in soil by LC-MS/MS	PFAS suite 3 by LC-MS/MS	In-house method	UK	W	NONE
Electrical conductivity at 20oC of water	Determination of electrical conductivity in water by electrometric measurement. Accredited Matrices SW, GW, PW	In-house method	L031-PL	W	ISO 17025
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method by continuous flow analyser. Accredited Matrices SW, GW, PW.	L080-PL	W	ISO 17025
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
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	W	ISO 17025
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
PRO (Waters)	Determination of hydrocarbons C6-C10 by headspace GC-MS. Accredited Matrices SW, PW. GW.	In-house method based on USEPA8260	L088-PL	W	ISO 17025
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Semi-volatile organic compounds in water	Determination of semi-volatile organic compounds in leachate by extraction in dichloromethane followed by GC-MS.	In-house method based on USEPA 8270	L102B-PL	W	NONE
Speciated EPA-16 PAHs in 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

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The results included within the report are representative of the samples submitted for analysis.



Analytical Report Number : 18-97564

Project / Site name: Carrow Works

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate in water	Determination of sulphate in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW, PrW.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Sulphide in water	Determination of sulphide in water by ion selective electrode.	In-house method	L029-PL	W	NONE
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests"	L009-PL	D	MCERTS
TPH1 (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Volatile organic compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025

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

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

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

Sample Deviation Report



Sample ID	Other_ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
WS24		W	18-97564	1029706	b	DRO (Waters)	L070-PL	b
WS24		W	18-97564	1029706	b	Monohydric phenols in water	L080-PL	b
WS24		W	18-97564	1029706	b	PRO (Waters)	L088-PL	b
WS24		W	18-97564	1029706	b	Semi-volatile organic compounds in water	L102B-PL	b
WS24		W	18-97564	1029706	b	Speciated EPA-16 PAHs in water	L102B-PL	b
WS24		W	18-97564	1029706	b	TPH1 (Waters)	L070-PL	b
WS24		W	18-97564	1029706	b	Volatile organic compounds in water	L073B-PL	b



Paul A.

Leap Environmental Ltd
The Atrium
Curtis Road
Dorking
Surrey
RH4 1XA

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

t: 01306646510
f: 01306646511
e: pa@leapenvironmental.com

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 18-97892

Replaces Analytical Report Number : 18-97892, issue no. 1

Project / Site name:	Carrow Works, Norwich	Samples received on:	28/08/2018
Your job number:	LPO1671	Samples instructed on:	28/08/2018
Your order number:	LPO8079	Analysis completed by:	13/09/2018
Report Issue Number:	2	Report issued on:	13/09/2018
Samples Analysed:	25 soil samples		

Signed:

Jordan Hill
Reporting Manager
For & on behalf of i2 Analytical Ltd.

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

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

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031912			1031913			1031914			1031915			1031916		
Sample Reference	HP2			HP2			WS9			WS9			WS9		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.15-0.60			0.70-1.20			0.17-0.50			2.55-2.85			4.90-5.00		
Date Sampled	23/08/2018			23/08/2018			23/08/2018			23/08/2018			23/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	3.9	7.2	12	17	21							
Total mass of sample received	kg	0.001	NONE	1.7	1.3	1.1	1.1	0.56							

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	-	-
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.0	11.3	10.6	-	-
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.2	0.3	0.2	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	-
Phenanthrene	mg/kg	0.05	MCERTS	0.72	0.51	0.48	-	-
Anthracene	mg/kg	0.05	MCERTS	0.23	0.13	0.22	-	-
Fluoranthene	mg/kg	0.05	MCERTS	1.1	0.95	1.1	-	-
Pyrene	mg/kg	0.05	MCERTS	0.89	0.83	0.87	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.43	0.45	0.44	-	-
Chrysene	mg/kg	0.05	MCERTS	0.46	0.48	0.47	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.53	0.55	0.57	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.25	0.40	0.32	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.49	0.55	0.51	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.24	0.29	0.26	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.28	0.33	0.35	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	5.57	5.47	5.55	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.3	7.7	5.8	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	0.3	0.5	-	-
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	11	12	7.7	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	17	26	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	26	87	81	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.5	11	6.1	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	37	310	38	-	-



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031912			1031913			1031914			1031915			1031916		
Sample Reference	HP2			HP2			WS9			WS9			WS9		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.15-0.60			0.70-1.20			0.17-0.50			2.55-2.85			4.90-5.00		
Date Sampled	23/08/2018			23/08/2018			23/08/2018			23/08/2018			23/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Compound	Units	Limit of detection	Accreditation Status	1031912	1031913	1031914	1031915	1031916
Benzene	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	< 0.001
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	< 0.001
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	< 0.001
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	-	< 2.0	< 2.0
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	-	-	< 8.0	< 8.0
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	< 8.0	-	-	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	-	-	< 10	< 10
TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	< 0.001
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	< 0.001
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	< 0.001
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	-	< 2.0	< 2.0
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	< 10	-	-	< 10	< 10
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	< 10	-	-	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	11	-	-	< 10	< 10



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031912			1031913			1031914			1031915			1031916		
Sample Reference	HP2			HP2			WS9			WS9			WS9		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.15-0.60			0.70-1.20			0.17-0.50			2.55-2.85			4.90-5.00		
Date Sampled	23/08/2018			23/08/2018			23/08/2018			23/08/2018			23/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

VOCs

Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
Chloroethane	µg/kg	1	NONE	< 1.0	-	-	-	-	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	-	-	-	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	-	-	-	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	-	-	-	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Tribromomethane	µg/kg	1	NONE	< 1.0	-	-	-	-	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	-	-	-	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	-	< 1.0



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031912		1031913		1031914		1031915		1031916	
Sample Reference	HP2		HP2		WS9		WS9		WS9	
Sample Number	None Supplied		None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.15-0.60		0.70-1.20		0.17-0.50		2.55-2.85		4.90-5.00	
Date Sampled	23/08/2018		23/08/2018		23/08/2018		23/08/2018		23/08/2018	
Time Taken	None Supplied		None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status							

SVOCs										
Compound	Units	Limit of detection	Accreditation Status	1031912	1031913	1031914	1031915	1031916	1031912	1031916
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	-	-	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	-	-	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	-	-	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	-	-	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	-	-	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	-	-	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	-	-	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	< 0.05	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	< 0.05	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	0.72	-	-	-	-	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.23	-	-	-	-	< 0.05	< 0.05
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	1.1	-	-	-	-	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.89	-	-	-	-	< 0.05	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	-	-	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.43	-	-	-	-	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.46	-	-	-	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.53	-	-	-	-	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.25	-	-	-	-	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.49	-	-	-	-	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.24	-	-	-	-	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.28	-	-	-	-	< 0.05	< 0.05



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031917	1031918	1031919	1031920	1031921
Sample Reference	WS19	WS19	WS19	WS7	HP1
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.40-0.60	1.40-1.90	4.50-5.00	0.70	0.30
Date Sampled	23/08/2018	23/08/2018	23/08/2018	24/08/2018	24/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	7.0	17
Total mass of sample received	kg	0.001	NONE	1.3	1.1
				1.5	1.4
				1.4	1.2

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	Not-detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	< 0.001

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.8	-	-	9.1	11.0
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.6	-	-	0.4	0.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.24	-	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	2.6	-	-	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	1.9	-	-	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	20	-	-	0.39	2.1
Anthracene	mg/kg	0.05	MCERTS	10	-	-	< 0.05	0.37
Fluoranthene	mg/kg	0.05	MCERTS	32	-	-	1.6	3.6
Pyrene	mg/kg	0.05	MCERTS	26	-	-	1.5	2.9
Benzo(a)anthracene	mg/kg	0.05	MCERTS	12	-	-	0.80	1.2
Chrysene	mg/kg	0.05	MCERTS	11	-	-	0.99	1.7
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	13	-	-	1.2	1.4
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	6.6	-	-	0.70	0.85
Benzo(a)pyrene	mg/kg	0.05	MCERTS	12	-	-	0.95	1.2
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	5.6	-	-	0.35	0.47
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	1.5	-	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	6.4	-	-	0.61	0.84

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	161	-	-	9.09	16.6
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.6	-	-	12	15
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	-	-	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	-	-	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	-	-	15	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	26	-	-	21	80
Lead (aqua regia extractable)	mg/kg	1	MCERTS	69	-	-	210	1100
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	-	0.5	30
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.1	-	-	10	12
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	40	-	-	66	160



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031917			1031918			1031919			1031920			1031921		
Sample Reference	WS19			WS19			WS19			WS7			HP1		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.40-0.60			1.40-1.90			4.50-5.00			0.70			0.30		
Date Sampled	23/08/2018			23/08/2018			23/08/2018			24/08/2018			24/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Parameter	Units	Limit of detection	Accreditation Status	1031917	1031918	1031919	1031920	1031921
Benzene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Toluene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Ethylbenzene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
p & m-xylene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
o-xylene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-

Petroleum Hydrocarbons

Parameter	Units	Limit of detection	Accreditation Status	1031917	1031918	1031919	1031920	1031921
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	< 2.0	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	< 8.0	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	< 8.0	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	< 10	-	-

Parameter	Units	Limit of detection	Accreditation Status	1031917	1031918	1031919	1031920	1031921
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	< 2.0	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	< 10	< 10	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	< 10	< 10	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	< 10	-	-



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031917			1031918			1031919			1031920			1031921		
Sample Reference	WS19			WS19			WS19			WS7			HP1		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.40-0.60			1.40-1.90			4.50-5.00			0.70			0.30		
Date Sampled	23/08/2018			23/08/2018			23/08/2018			24/08/2018			24/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												
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	-	-	-	-	-	-	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-	-	-



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number				1031917	1031918	1031919	1031920	1031921
Sample Reference				WS19	WS19	WS19	WS7	HP1
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.40-0.60	1.40-1.90	4.50-5.00	0.70	0.30
Date Sampled				23/08/2018	23/08/2018	23/08/2018	24/08/2018	24/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031922	1031923	1031924	1031925	1031926			
Sample Reference	WS55	WS55	WS39	WS39	WS39			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.15-0.31	1.80-2.00	0.41-1.25	1.25-1.65	3.80-4.00			
Date Sampled	24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	4.5	2.4	20	31	5.8
Total mass of sample received	kg	0.001	NONE	1.3	1.4	1.1	0.94	0.56

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	Not-detected	-
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.8	-	8.4	7.0	-
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.8	-	1.7	4.5	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	0.53	-	1.6	0.24	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	0.50	< 0.05	-
Fluoranthene	mg/kg	0.05	MCERTS	1.4	-	3.8	0.40	-
Pyrene	mg/kg	0.05	MCERTS	1.2	-	3.3	0.35	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.55	-	1.4	0.32	-
Chrysene	mg/kg	0.05	MCERTS	0.61	-	1.7	0.24	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.69	-	1.7	0.37	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.38	-	1.0	0.17	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.56	-	1.6	0.26	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	0.75	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	1.1	< 0.05	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	5.91	-	18.5	2.35	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	-	12	25	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	-	0.5	< 0.2	-
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	-	< 4.0	< 4.0	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	12	-	10	18	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	59	-	180	160	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	87	-	240	220	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	0.4	0.8	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	18	-	17	18	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	58	-	210	270	-



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031922			1031923			1031924			1031925			1031926		
Sample Reference	WS55			WS55			WS39			WS39			WS39		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.15-0.31			1.80-2.00			0.41-1.25			1.25-1.65			3.80-4.00		
Date Sampled	24/08/2018			24/08/2018			24/08/2018			24/08/2018			24/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Parameter	Units	Limit of detection	Accreditation Status	1031922	1031923	1031924	1031925	1031926
Benzene	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Toluene	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Ethylbenzene	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
p & m-xylene	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
o-xylene	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-

Petroleum Hydrocarbons

Parameter	Units	Limit of detection	Accreditation Status	1031922	1031923	1031924	1031925	1031926
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	< 2.0	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	-	< 8.0	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	-	< 8.0	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	< 10	-

Parameter	Units	Limit of detection	Accreditation Status	1031922	1031923	1031924	1031925	1031926
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	< 2.0	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	< 10	-	< 10	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	< 10	-	< 10	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	< 10	-



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031922			1031923			1031924			1031925			1031926		
Sample Reference	WS55			WS55			WS39			WS39			WS39		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.15-0.31			1.80-2.00			0.41-1.25			1.25-1.65			3.80-4.00		
Date Sampled	24/08/2018			24/08/2018			24/08/2018			24/08/2018			24/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												
VOCs															
Chloromethane	µg/kg	1	ISO 17025	-	-	-	-	-	-	-	-	-	-	< 1.0	
Chloroethane	µg/kg	1	NONE	-	-	-	-	-	-	-	-	-	-	< 1.0	
Bromomethane	µg/kg	1	ISO 17025	-	-	-	-	-	-	-	-	-	-	< 1.0	
Vinyl Chloride	µg/kg	1	NONE	-	-	-	-	-	-	-	-	-	-	< 1.0	
Trichlorofluoromethane	µg/kg	1	NONE	-	-	-	-	-	-	-	-	-	-	< 1.0	
1,1-Dichloroethene	µg/kg	1	NONE	-	-	-	-	-	-	-	-	-	-	< 1.0	
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	-	-	-	-	-	-	-	-	< 1.0	
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	-	-	-	-	-	-	-	-	< 1.0	
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	-	-	-	-	-	-	-	-	< 1.0	
1,1-Dichloroethane	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	



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number				1031922	1031923	1031924	1031925	1031926
Sample Reference				WS55	WS55	WS39	WS39	WS39
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.15-0.31	1.80-2.00	0.41-1.25	1.25-1.65	3.80-4.00
Date Sampled				24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031927	1031928	1031929	1031930	1031931			
Sample Reference	WS39	WS38	WS38	WS38	WS37			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	4.75-4.95	0.85-1.10	1.35-1.55	4.50-4.70	0.70			
Date Sampled	24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	11	24	23	8.7	14
Total mass of sample received	kg	0.001	NONE	0.47	0.97	0.97	0.61	1.1

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	Not-detected	-	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-	7.9	8.4	-	8.4
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	4.9	2.2	-	2.2

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	0.41	< 0.05	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	0.40	< 0.05	-	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	0.81	< 0.80	-	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	58	9.1	-	41
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	-	< 4.0	< 4.0	-	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	10	14	-	9.5
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	2400	120	-	660
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	10000	190	-	1900
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	1.8	< 0.3	-	1.0
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	26	22	-	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	2.2	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	1200	210	-	450



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number				1031927	1031928	1031929	1031930	1031931
Sample Reference				WS39	WS38	WS38	WS38	WS37
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.75-4.95	0.85-1.10	1.35-1.55	4.50-4.70	0.70
Date Sampled				24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics

Parameter	Units	Limit of detection	Accreditation Status	1031927	1031928	1031929	1031930	1031931
Benzene	ug/kg	1	MCERTS	-	< 1.0	-	-	-
Toluene	ug/kg	1	MCERTS	-	< 1.0	-	-	-
Ethylbenzene	ug/kg	1	MCERTS	-	< 1.0	-	-	-
p & m-xylene	ug/kg	1	MCERTS	-	< 1.0	-	-	-
o-xylene	ug/kg	1	MCERTS	-	< 1.0	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	< 1.0	-	-	-

Petroleum Hydrocarbons

Parameter	Units	Limit of detection	Accreditation Status	1031927	1031928	1031929	1031930	1031931
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	-	-

Parameter	Units	Limit of detection	Accreditation Status	1031927	1031928	1031929	1031930	1031931
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	< 10	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	< 10	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	-	-



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number				1031927	1031928	1031929	1031930	1031931
Sample Reference				WS39	WS38	WS38	WS38	WS37
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.75-4.95	0.85-1.10	1.35-1.55	4.50-4.70	0.70
Date Sampled				24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
Chloroethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	-	< 1.0	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Tribromomethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	< 1.0



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number				1031927	1031928	1031929	1031930	1031931
Sample Reference				WS39	WS38	WS38	WS38	WS37
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.75-4.95	0.85-1.10	1.35-1.55	4.50-4.70	0.70
Date Sampled				24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	< 0.05



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031932	1031933	1031934	1031935	1031936			
Sample Reference	WS37	WS37	WS36	WS36	WS36			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	1.10-1.40	4.00-4.30	0.60	2.20	4.00-5.00			
Date Sampled	24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	20	12	14	8.1	9.6
Total mass of sample received	kg	0.001	NONE	1.1	0.66	1.3	1.6	0.59

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	Not-detected	-
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.2	-	9.0	8.0	-
Total Organic Carbon (TOC)	%	0.1	MCERTS	2.3	-	1.3	0.2	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	0.53	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	0.56	-	0.48	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	0.47	< 0.05	-
Fluoranthene	mg/kg	0.05	MCERTS	0.60	-	1.7	< 0.05	-
Pyrene	mg/kg	0.05	MCERTS	0.49	-	1.9	< 0.05	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.27	-	0.81	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	0.43	-	0.87	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.40	-	1.4	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.24	-	0.77	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.31	-	1.2	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	0.55	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	0.73	< 0.05	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	3.30	-	11.4	< 0.80	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	22	-	10	3.2	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	-	< 4.0	< 4.0	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	-	15	7.7	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	140	-	76	4.9	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	210	-	110	3.7	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5	-	< 0.3	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	18	-	19	6.5	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	150	-	110	14	-



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number	1031932			1031933			1031934			1031935			1031936			
Sample Reference	WS37			WS37			WS36			WS36			WS36			
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied			
Depth (m)	1.10-1.40			4.00-4.30			0.60			2.20			4.00-5.00			
Date Sampled	24/08/2018			24/08/2018			24/08/2018			24/08/2018			24/08/2018			
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status													

Monoaromatics

Compound	Units	Limit of detection	Accreditation Status	1031932	1031933	1031934	1031935	1031936
Benzene	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Toluene	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
p & m-xylene	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
o-xylene	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	-	-	< 1.0	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	-	< 2.0	-
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	-	-	< 8.0	-
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	< 8.0	-	-	< 8.0	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	-	-	< 10	-

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	-	< 0.001	-
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	-	< 2.0	-
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	< 10	-	-	< 10	-
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	< 10	-	-	< 10	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	-	-	< 10	-



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number				1031932	1031933	1031934	1031935	1031936
Sample Reference				WS37	WS37	WS36	WS36	WS36
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.10-1.40	4.00-4.30	0.60	2.20	4.00-5.00
Date Sampled				24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Chloroethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Vinyl Chloride	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
Benzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Toluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Tetrachloroethene	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Styrene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Tribromomethane	µg/kg	1	NONE	-	< 1.0	< 1.0	-	< 1.0
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	< 1.0	-	< 1.0



Analytical Report Number: 18-97892

Project / Site name: Carrow Works, Norwich

Your Order No: LPO8079

Lab Sample Number				1031932	1031933	1031934	1031935	1031936
Sample Reference				WS37	WS37	WS36	WS36	WS36
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.10-1.40	4.00-4.30	0.60	2.20	4.00-5.00
Date Sampled				24/08/2018	24/08/2018	24/08/2018	24/08/2018	24/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	< 0.2	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	< 0.2	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	< 0.1	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	< 0.1	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	0.53	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	< 0.3	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	0.48	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	0.47	-	< 0.05
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	1.7	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	1.9	-	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	< 0.3	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	0.81	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	0.87	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	1.4	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	0.77	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	1.2	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	0.55	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	0.73	-	< 0.05



Analytical Report Number: 18-97892
Project / Site name: Carrow Works, Norwich
Your Order No: LPO8079

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

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

Quantitative Analysis

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

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

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

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1031921	HP1	0.30	127	Loose Fibres	Chrysotile	< 0.001	< 0.001

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



Analytical Report Number : 18-97892

Project / Site name: Carrow Works, Norwich

* 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 *
1031912	HP2	None Supplied	0.15-0.60	Light brown sand with gravel and rubble.
1031913	HP2	None Supplied	0.70-1.20	Light brown sand with gravel and rubble.
1031914	WS9	None Supplied	0.17-0.50	Grey clay and sand with gravel and chalk.
1031915	WS9	None Supplied	2.55-2.85	Beige clay and sand with gravel and chalk.
1031916	WS9	None Supplied	4.90-5.00	White chalk. **
1031917	WS19	None Supplied	0.40-0.60	Brown sand with rubble and brick.
1031918	WS19	None Supplied	1.40-1.90	Light brown clay and sand with rubble and vegetation.
1031919	WS19	None Supplied	4.50-5.00	Light brown clay and sand with rubble and chalk.
1031920	WS7	None Supplied	0.70	Brown sand with rubble and brick.
1031921	HP1	None Supplied	0.30	Brown sand with rubble and brick.
1031922	WS55	None Supplied	0.15-0.31	Brown sandy loam with gravel.
1031923	WS55	None Supplied	1.80-2.00	Light brown sand with gravel.
1031924	WS39	None Supplied	0.41-1.25	Grey clay and sand with gravel and clinker.
1031925	WS39	None Supplied	1.25-1.65	Brown clay and loam with gravel and brick.
1031926	WS39	None Supplied	3.80-4.00	Grey sand with gravel.
1031927	WS39	None Supplied	4.75-4.95	Brown sand with gravel.
1031928	WS38	None Supplied	0.85-1.10	Brown clay and sand with gravel.
1031929	WS38	None Supplied	1.35-1.55	Grey clay and sand with clinker.
1031930	WS38	None Supplied	4.50-4.70	Brown sandy clay with gravel.
1031931	WS37	None Supplied	0.70	Brown clay and sand with rubble and chalk.
1031932	WS37	None Supplied	1.10-1.40	Grey clay and sand with gravel and rubble.
1031933	WS37	None Supplied	4.00-4.30	Brown sand.
1031934	WS36	None Supplied	0.60	Brown loam and clay with gravel.
1031935	WS36	None Supplied	2.20	Brown sand.
1031936	WS36	None Supplied	4.00-5.00	Light brown sandy clay with gravel.

** Non MCERTS matrix.



Analytical Report Number : 18-97892

Project / Site name: Carrow Works, Norwich

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
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
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L009-PL	D	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS

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

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

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



Paul A.

Leap Environmental Ltd
The Atrium
Curtis Road
Dorking
Surrey
RH4 1XA

t: 01306646510
f: 01306646511
e: pa@leapenvironmental.com

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

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 18-98261

Replaces Analytical Report Number : 18-98261, issue no. 1

Project / Site name:	Carrow Works	Samples received on:	24/08/2018
Your job number:	LP01671	Samples instructed on:	29/08/2018
Your order number:	LPO8079	Analysis completed by:	13/09/2018
Report Issue Number:	2	Report issued on:	13/09/2018
Samples Analysed:	38 soil samples - 1 water sample		

Signed:

Jordan Hill
Reporting Manager
For & on behalf of i2 Analytical Ltd.

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

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

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034444	1034445	1034446	1034447	1034448			
Sample Reference	WS29	WS29	WS32	WS32	WS30			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.50	3.80	0.30	1.50	0.50			
Date Sampled	22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	24	22	4.5	3.9	16
Total mass of sample received	kg	0.001	NONE	1.1	1.2	0.81	1.4	1.4

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	-	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.1	-	11.2	-	9.1
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.1	-	0.2	-	0.3

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	-	< 0.80	-	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	2.1	-	15	-	6.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	-	< 0.2	-	0.6
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	-	< 4.0	-	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	3.5	-	49	-	3.7
Copper (aqua regia extractable)	mg/kg	1	MCERTS	15	-	61	-	25
Lead (aqua regia extractable)	mg/kg	1	MCERTS	3.8	-	20	-	10
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	4.4	-	39	-	8.2
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	20	-	120	-	29



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034444	1034445	1034446	1034447	1034448
Sample Reference	WS29	WS29	WS32	WS32	WS30
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.50	3.80	0.30	1.50	0.50
Date Sampled	22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		

Monoaromatics

Compound	Units	Limit of detection	Accreditation Status					
Benzene	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Toluene	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Ethylbenzene	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
p & m-xylene	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
o-xylene	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	< 1.0	-	< 1.0	-

Petroleum Hydrocarbons

Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	-	-	-	-
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TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	< 2.0	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	-	< 8.0	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	-	< 8.0	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	< 10	-

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	< 0.001	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	< 2.0	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	< 10	-	< 10	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	< 10	-	< 10	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	-	< 10	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034444			1034445			1034446			1034447			1034448		
Sample Reference	WS29			WS29			WS32			WS32			WS30		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.50			3.80			0.30			1.50			0.50		
Date Sampled	22/08/2018			22/08/2018			22/08/2018			22/08/2018			22/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

VOCs

Compound	Units	Limit of detection	Accreditation Status	1034444	1034445	1034446	1034447	1034448
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Chloroethane	µg/kg	1	NONE	-	< 1.0	-	-	-
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Vinyl Chloride	µg/kg	1	NONE	-	< 1.0	-	-	-
Trichlorofluoromethane	µg/kg	1	NONE	-	< 1.0	-	-	-
1,1-Dichloroethene	µg/kg	1	NONE	-	< 1.0	-	-	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	-	-
1,1-Dichloroethane	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	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034444			1034445			1034446			1034447			1034448		
Sample Reference	WS29			WS29			WS32			WS32			WS30		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.50			3.80			0.30			1.50			0.50		
Date Sampled	22/08/2018			22/08/2018			22/08/2018			22/08/2018			22/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs																
Compound	Units	Limit of detection	Accreditation Status	1034444	1034445	1034446	1034447	1034448	1034444	1034445	1034446	1034447	1034448	1034444	1034445	1034446
Aniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-	-	-	-	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-	-	-	-	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034444	1034445	1034446	1034447	1034448
Sample Reference	WS29	WS29	WS32	WS32	WS30
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.50	3.80	0.30	1.50	0.50
Date Sampled	22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied

Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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PCBs by GC-MS

PCB Congener	Units	Limit of detection	Accreditation Status					
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-

Total PCBs by GC-MS

Total PCBs	Units	Limit of detection	Accreditation Status					
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034449	1034450	1034451	1034452	1034453			
Sample Reference	WS30	WS31	WS15	WS15	WS15			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	4.00	0.60	0.17-0.50	0.70-0.80	4.80			
Date Sampled	22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	22	15	8.7	15	21
Total mass of sample received	kg	0.001	NONE	-	1.2	1.2	1.1	1.0

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	Not-detected	Not-detected	-
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-	8.7	8.9	9.1	-
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	0.4	0.2	0.2	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	< 0.80	< 0.80	< 0.80	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	4.1	10	4.1	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	0.5	< 0.2	0.6	-
Chromium (hexavalent)	mg/kg	4	MCERTS	-	< 4.0	< 4.0	< 4.0	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	5.7	62	8.9	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	24	5.5	9.5	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	26	13	6.0	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	8.2	39	6.2	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	24	64	17	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034449			1034450		1034451		1034452		1034453	
Sample Reference	WS30			WS31		WS15		WS15		WS15	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	4.00			0.60		0.17-0.50		0.70-0.80		4.80	
Date Sampled	22/08/2018			22/08/2018		22/08/2018		22/08/2018		22/08/2018	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								
Monoaromatics											
Benzene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0
Toluene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0
p & m-xylene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0
o-xylene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0

Petroleum Hydrocarbons

Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	-	-	-	-	-
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-	< 10



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034449	1034450	1034451	1034452	1034453
Sample Reference				WS30	WS31	WS15	WS15	WS15
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.00	0.60	0.17-0.50	0.70-0.80	4.80
Date Sampled				22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Chloroethane	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Tribromomethane	µg/kg	1	NONE	< 1.0	-	-	-	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	-	-	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	-	< 1.0



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034449	1034450	1034451	1034452	1034453
Sample Reference				WS30	WS31	WS15	WS15	WS15
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.00	0.60	0.17-0.50	0.70-0.80	4.80
Date Sampled				22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	< 0.1
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	< 0.3
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	< 0.05



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034449	1034450	1034451	1034452	1034453
Sample Reference				WS30	WS31	WS15	WS15	WS15
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				4.00	0.60	0.17-0.50	0.70-0.80	4.80
Date Sampled				22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034454	1034455	1034456	1034457	1034458			
Sample Reference	WS26	WS17	WS17	WS27a	WS8			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.30	0.30	0.80	0.30	0.30			
Date Sampled	22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	33	< 0.1	< 0.1	47
Moisture Content	%	N/A	NONE	9.8	7.7	20	4.6	5.9
Total mass of sample received	kg	0.001	NONE	1.2	1.3	1.0	1.3	1.3

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.1	10.1	9.1	9.6	10.4
Total Organic Carbon (TOC)	%	0.1	MCERTS	2.0	0.2	0.4	3.6	2.3

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.69	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.62	< 0.05	< 0.05	0.32	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	3.5	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	4.3	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	32	< 0.05	< 0.05	1.9	0.57
Anthracene	mg/kg	0.05	MCERTS	8.2	< 0.05	< 0.05	0.80	0.18
Fluoranthene	mg/kg	0.05	MCERTS	40	< 0.05	< 0.05	8.7	1.7
Pyrene	mg/kg	0.05	MCERTS	35	< 0.05	< 0.05	9.1	1.5
Benzo(a)anthracene	mg/kg	0.05	MCERTS	19	< 0.05	< 0.05	5.4	0.89
Chrysene	mg/kg	0.05	MCERTS	15	< 0.05	< 0.05	4.9	0.88
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	21	< 0.05	< 0.05	7.9	0.98
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	8.5	< 0.05	< 0.05	2.7	0.60
Benzo(a)pyrene	mg/kg	0.05	MCERTS	17	< 0.05	< 0.05	6.3	0.88
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	8.7	< 0.05	< 0.05	3.8	0.44
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	2.5	< 0.05	< 0.05	1.0	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	11	< 0.05	< 0.05	5.7	0.53

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	228	< 0.80	< 0.80	58.7	9.17
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	8.9	1.9	7.5	8.1
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	< 0.2	0.6	0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	15	64	6.2	16	35
Copper (aqua regia extractable)	mg/kg	1	MCERTS	67	7.9	19	24	92
Lead (aqua regia extractable)	mg/kg	1	MCERTS	240	12	20	73	16
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15	36	4.6	15	11
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	130	68	18	50	30



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034454	1034455	1034456	1034457	1034458
Sample Reference	WS26	WS17	WS17	WS27a	WS8
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.30	0.30	0.80	0.30	0.30
Date Sampled	22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status		
Monoaromatics					
Benzene	ug/kg	1	MCERTS	-	< 1.0
Toluene	ug/kg	1	MCERTS	-	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	-	< 1.0
p & m-xylene	ug/kg	1	MCERTS	-	< 1.0
o-xylene	ug/kg	1	MCERTS	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	< 1.0

Petroleum Hydrocarbons

Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	22
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	24
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	12
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	92
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	110



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034454	1034455	1034456	1034457	1034458
Sample Reference				WS26	WS17	WS17	WS27a	WS8
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.30	0.80	0.30	0.30
Date Sampled				22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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	-	-	-	-	-
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	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034454	1034455	1034456	1034457	1034458
Sample Reference				WS26	WS17	WS17	WS27a	WS8
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.30	0.80	0.30	0.30
Date Sampled				22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034454	1034455	1034456	1034457	1034458
Sample Reference				WS26	WS17	WS17	WS27a	WS8
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.30	0.80	0.30	0.30
Date Sampled				22/08/2018	22/08/2018	22/08/2018	22/08/2018	22/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034459			1034460		1034461		1034462		1034463	
Sample Reference	WS8			WS8		WS14		WS14		WS12	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	0.80			4.20		0.15-0.60		4.30		0.40	
Date Sampled	22/08/2018			22/08/2018		22/08/2018		22/08/2018		23/08/2018	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	6.4	19	4.7	20	8.5			
Total mass of sample received	kg	0.001	NONE	1.3	1.1	1.3	-	1.2			

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	-	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.4	-	10.9	-	11.1
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.4	-	1.6	-	2.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.23	-	0.29	-	0.57
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	0.15
Fluoranthene	mg/kg	0.05	MCERTS	0.40	-	0.78	-	1.2
Pyrene	mg/kg	0.05	MCERTS	0.35	-	0.74	-	1.0
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.23	-	0.40	-	0.71
Chrysene	mg/kg	0.05	MCERTS	0.20	-	0.51	-	0.67
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.21	-	0.64	-	0.83
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.14	-	0.27	-	0.46
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.23	-	0.41	-	0.64
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	0.27	-	0.41
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	0.33	-	0.52

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	1.99	-	4.64	-	7.22
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	-	8.6	-	12
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.3	-	< 0.2	-	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	-	< 4.0	-	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	-	22	-	29
Copper (aqua regia extractable)	mg/kg	1	MCERTS	42	-	50	-	63
Lead (aqua regia extractable)	mg/kg	1	MCERTS	56	-	12	-	16
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	14	-	13	-	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	-	41	-	39



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034459	1034460	1034461	1034462	1034463
Sample Reference				WS8	WS8	WS14	WS14	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	4.20	0.15-0.60	4.30	0.40
Date Sampled				22/08/2018	22/08/2018	22/08/2018	22/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Toluene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
Ethylbenzene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
p & m-xylene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
o-xylene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	-

Petroleum Hydrocarbons

Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	2.5	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	< 8.0	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	23	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	30	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	2.6	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	5.9	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	< 10	20	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	< 10	130	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	160	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034459	1034460	1034461	1034462	1034463
Sample Reference				WS8	WS8	WS14	WS14	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	4.20	0.15-0.60	4.30	0.40
Date Sampled				22/08/2018	22/08/2018	22/08/2018	22/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Chloroethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Styrene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Tribromomethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034459	1034460	1034461	1034462	1034463
Sample Reference				WS8	WS8	WS14	WS14	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	4.20	0.15-0.60	4.30	0.40
Date Sampled				22/08/2018	22/08/2018	22/08/2018	22/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034459	1034460	1034461	1034462	1034463
Sample Reference				WS8	WS8	WS14	WS14	WS12
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.80	4.20	0.15-0.60	4.30	0.40
Date Sampled				22/08/2018	22/08/2018	22/08/2018	22/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034464	1034465	1034466	1034467	1034468
Sample Reference				WS12	WS12	WS13	WS13	WS16
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	2.80	0.90	2.40-2.50	0.40
Date Sampled				23/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	19	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	15	9.8	6.6	8.1	8.3
Total mass of sample received	kg	0.001	NONE	1.0	1.2	1.3	1.3	1.2

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	-	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	< 0.001

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.8	-	8.9	-	9.2
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.2	-	0.5	-	1.8

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	0.37
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	0.23
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	0.25
Phenanthrene	mg/kg	0.05	MCERTS	0.85	-	0.14	-	3.9
Anthracene	mg/kg	0.05	MCERTS	0.32	-	< 0.05	-	1.5
Fluoranthene	mg/kg	0.05	MCERTS	1.9	-	0.45	-	16
Pyrene	mg/kg	0.05	MCERTS	1.6	-	0.47	-	15
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.0	-	0.24	-	11
Chrysene	mg/kg	0.05	MCERTS	0.83	-	0.24	-	6.6
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	1.0	-	0.33	-	8.0
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.65	-	0.17	-	5.5
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.0	-	0.32	-	9.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.59	-	< 0.05	-	3.7
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	1.0
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.66	-	< 0.05	-	4.2

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	10.4	-	2.36	-	86.8
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	3.4	-	11	-	13
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	-	< 0.2	-	0.5
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	-	< 4.0	-	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	4.5	-	12	-	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	19	-	23	-	140
Lead (aqua regia extractable)	mg/kg	1	MCERTS	18	-	31	-	810
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5	-	< 0.3	-	2.0
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	4.0	-	18	-	14
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	23	-	42	-	160



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034464			1034465		1034466		1034467		1034468	
Sample Reference	WS12			WS12		WS13		WS13		WS16	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	1.70			2.80		0.90		2.40-2.50		0.40	
Date Sampled	23/08/2018			23/08/2018		23/08/2018		23/08/2018		23/08/2018	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								
Monoaromatics											
Benzene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	-
Toluene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	-
Ethylbenzene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	-
p & m-xylene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	-
o-xylene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	-	-	-	-	-	-	-

Petroleum Hydrocarbons

Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	-	-	-	-	-	-	-
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034464	1034465	1034466	1034467	1034468
Sample Reference				WS12	WS12	WS13	WS13	WS16
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	2.80	0.90	2.40-2.50	0.40
Date Sampled				23/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Chloroethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Styrene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Tribromomethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034464	1034465	1034466	1034467	1034468
Sample Reference				WS12	WS12	WS13	WS13	WS16
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	2.80	0.90	2.40-2.50	0.40
Date Sampled				23/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	-	0.14	-	0.15	-
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	-	0.63	-	0.55	-
Pyrene	mg/kg	0.05	MCERTS	-	0.55	-	0.48	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.38	-	0.36	-
Chrysene	mg/kg	0.05	MCERTS	-	0.26	-	0.23	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	0.40	-	0.30	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.21	-	0.14	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.39	-	0.26	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	0.20	-	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	0.24	-	< 0.05	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034464	1034465	1034466	1034467	1034468
Sample Reference				WS12	WS12	WS13	WS13	WS16
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.70	2.80	0.90	2.40-2.50	0.40
Date Sampled				23/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034469	1034470	1034471	1034472	1034473
Sample Reference				WS16	WS16	WS43	WS42	WS10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	2.60-2.80	0.80-1.00	0.60-1.00	0.30
Date Sampled				23/08/2018	23/08/2018	22/08/2018	22/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	11	12	4.8	3.3	15
Total mass of sample received	kg	0.001	NONE	0.93	1.1	1.2	1.1	1.3

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.4	-	8.3	8.8	10.3
Total Organic Carbon (TOC)	%	0.1	MCERTS	4.3	-	1.2	0.8	0.5

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.88	-	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.12	-	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	1.1	-	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.92	-	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.81	-	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.66	-	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.87	-	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.41	-	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.77	-	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.39	-	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.40	-	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	7.30	-	< 0.80	< 0.80	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	29	-	7.8	7.9	6.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	-	0.6	0.2	0.4
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	-	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	13	-	12	10	7.3
Copper (aqua regia extractable)	mg/kg	1	MCERTS	980	-	20	15	49
Lead (aqua regia extractable)	mg/kg	1	MCERTS	830	-	41	31	67
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	32	-	13	12	7.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	170	-	65	32	24



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034469	1034470	1034471	1034472	1034473
Sample Reference				WS16	WS16	WS43	WS42	WS10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	2.60-2.80	0.80-1.00	0.60-1.00	0.30
Date Sampled				23/08/2018	23/08/2018	22/08/2018	22/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	-	-	-

Petroleum Hydrocarbons

Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	< 10	< 10	< 10	-
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034469	1034470	1034471	1034472	1034473
Sample Reference				WS16	WS16	WS43	WS42	WS10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	2.60-2.80	0.80-1.00	0.60-1.00	0.30
Date Sampled				23/08/2018	23/08/2018	22/08/2018	22/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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	-	-	-	-	-
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	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034469	1034470	1034471	1034472	1034473
Sample Reference				WS16	WS16	WS43	WS42	WS10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	2.60-2.80	0.80-1.00	0.60-1.00	0.30
Date Sampled				23/08/2018	23/08/2018	22/08/2018	22/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034469	1034470	1034471	1034472	1034473
Sample Reference				WS16	WS16	WS43	WS42	WS10
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	2.60-2.80	0.80-1.00	0.60-1.00	0.30
Date Sampled				23/08/2018	23/08/2018	22/08/2018	22/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	< 0.001	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	< 0.007	< 0.007	< 0.007	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1034474			1034475		1034476		1034477		1034478	
Sample Reference	WS10			WS11		WS11		WS11		WS4	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	1.40			0.67-1.00		2.50-2.70		3.15-3.40		0.15-0.50	
Date Sampled	23/08/2018			23/08/2018		23/08/2018		23/08/2018		23/08/2018	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								
Stone Content	%	0.1	NONE	< 0.1	24	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	13	7.5	8.4	10	7.3	7.3	7.3	7.3
Total mass of sample received	kg	0.001	NONE	1.1	1.2	1.3	1.3	1.3	1.3	1.3	1.2

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	-	-	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.4	7.3	-	-	8.6
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.4	0.7	-	-	1.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.21
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.85
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	0.34
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.16	-	-	3.7
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	1.4
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.44	-	-	18
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.37	-	-	16
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.22	-	-	7.8
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.27	-	-	5.5
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.30	-	-	10
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.13	-	-	4.1
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.22	-	-	9.0
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	4.3
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	1.1
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	4.9

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	2.11	-	-	86.7
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	6.9	12	-	-	9.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.4	< 0.2	-	-	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	-	-	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	6.3	13	-	-	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	22	24	-	-	30
Lead (aqua regia extractable)	mg/kg	1	MCERTS	46	10	-	-	79
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	6.6	17	-	-	11
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	17	43	-	-	40



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034474	1034475	1034476	1034477	1034478
Sample Reference				WS10	WS11	WS11	WS11	WS4
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.40	0.67-1.00	2.50-2.70	3.15-3.40	0.15-0.50
Date Sampled				23/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	-	< 1.0	-	-	-
Toluene	ug/kg	1	MCERTS	-	< 1.0	-	-	-
Ethylbenzene	ug/kg	1	MCERTS	-	< 1.0	-	-	-
p & m-xylene	ug/kg	1	MCERTS	-	< 1.0	-	-	-
o-xylene	ug/kg	1	MCERTS	-	< 1.0	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	< 1.0	-	-	-

Petroleum Hydrocarbons

Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	-	-	-	-
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	-	26	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	-	53	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	80	-	-	-
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	-	-	-
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	-	-	-
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	-	-	-
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	-	< 10	-	-	-
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	-	36	-	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	42	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034474	1034475	1034476	1034477	1034478
Sample Reference				WS10	WS11	WS11	WS11	WS4
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.40	0.67-1.00	2.50-2.70	3.15-3.40	0.15-0.50
Date Sampled				23/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Chloroethane	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
Benzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Toluene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Styrene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Tribromomethane	µg/kg	1	NONE	-	-	< 1.0	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034474	1034475	1034476	1034477	1034478
Sample Reference				WS10	WS11	WS11	WS11	WS4
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.40	0.67-1.00	2.50-2.70	3.15-3.40	0.15-0.50
Date Sampled				23/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	< 0.05	0.25	-
Pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	0.26	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034474	1034475	1034476	1034477	1034478
Sample Reference				WS10	WS11	WS11	WS11	WS4
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.40	0.67-1.00	2.50-2.70	3.15-3.40	0.15-0.50
Date Sampled				23/08/2018	23/08/2018	23/08/2018	23/08/2018	23/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-	-	-
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-	-	-
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	-	-	-



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034479	1034480	1034481		
Sample Reference				WS4	WS5	WS5		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				1.15-1.75	0.15-0.43	4.90-5.00		
Date Sampled				23/08/2018	23/08/2018	23/08/2018		
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	%	N/A	NONE	18	12	23		
Total mass of sample received	kg	0.001	NONE	1.0	1.1	0.53		

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-		
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-		
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-		
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-		

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-	8.8	-		
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	0.6	-		

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-		
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-		
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-		
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-		
Phenanthrene	mg/kg	0.05	MCERTS	-	0.20	-		
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-		
Fluoranthene	mg/kg	0.05	MCERTS	-	0.41	-		
Pyrene	mg/kg	0.05	MCERTS	-	0.35	-		
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	0.23	-		
Chrysene	mg/kg	0.05	MCERTS	-	0.20	-		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	0.28	-		
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.18	-		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	0.32	-		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	0.46	-		
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	0.91	-		

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	3.54	-		
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	4.4	-		
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	0.4	-		
Chromium (hexavalent)	mg/kg	4	MCERTS	-	< 4.0	-		
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	4.7	-		
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	32	-		
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	25	-		
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	-		
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	6.1	-		
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	-		
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	14	-		



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034479	1034480	1034481		
Sample Reference				WS4	WS5	WS5		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				1.15-1.75	0.15-0.43	4.90-5.00		
Date Sampled				23/08/2018	23/08/2018	23/08/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0		
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0		
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0		
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0		
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0		

Petroleum Hydrocarbons

Mineral Oil (C10 - C40)	mg/kg	10	NONE	-	-	-		
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001		
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001		
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001		
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	15	< 2.0		
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	160	< 8.0		
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	72	< 8.0		
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	240	< 10		
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001		
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001		
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001		
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0		
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	3.6	< 2.0		
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	46	< 10		
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	160	< 10		
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	210	< 10		



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034479	1034480	1034481		
Sample Reference				WS4	WS5	WS5		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				1.15-1.75	0.15-0.43	4.90-5.00		
Date Sampled				23/08/2018	23/08/2018	23/08/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	< 1.0		
Chloroethane	µg/kg	1	NONE	-	-	< 1.0		
Bromomethane	µg/kg	1	ISO 17025	-	-	< 1.0		
Vinyl Chloride	µg/kg	1	NONE	-	-	< 1.0		
Trichlorofluoromethane	µg/kg	1	NONE	-	-	< 1.0		
1,1-Dichloroethene	µg/kg	1	NONE	-	-	< 1.0		
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	< 1.0		
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	< 1.0		
1,1-Dichloroethane	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		



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034479	1034480	1034481		
Sample Reference				WS4	WS5	WS5		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				1.15-1.75	0.15-0.43	4.90-5.00		
Date Sampled				23/08/2018	23/08/2018	23/08/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-		
Phenol	mg/kg	0.2	ISO 17025	-	-	-		
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-		
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-		
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-		
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-		
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-		
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-		
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-		
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-		
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-		
4-Methylphenol	mg/kg	0.2	NONE	-	-	-		
Isophorone	mg/kg	0.2	MCERTS	-	-	-		
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-		
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-		
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-		
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-		
Naphthalene	mg/kg	0.05	MCERTS	-	-	-		
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-		
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-		
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-		
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-		
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-		
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-		
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-		
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-		
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-		
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-		
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-		
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-		
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-		
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-		
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-		
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-		
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-		
Fluorene	mg/kg	0.05	MCERTS	-	-	-		
Azobenzene	mg/kg	0.3	MCERTS	-	-	-		
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-		
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-		
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-		
Anthracene	mg/kg	0.05	MCERTS	-	-	-		
Carbazole	mg/kg	0.3	MCERTS	-	-	-		
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-		
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-		
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-		
Pyrene	mg/kg	0.05	MCERTS	-	-	-		
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-		
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-		
Chrysene	mg/kg	0.05	MCERTS	-	-	-		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-		
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-		
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-		



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034479	1034480	1034481		
Sample Reference				WS4	WS5	WS5		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				1.15-1.75	0.15-0.43	4.90-5.00		
Date Sampled				23/08/2018	23/08/2018	23/08/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
PCBs by GC-MS								
PCB Congener 28	mg/kg	0.001	MCERTS	-	-	-		
PCB Congener 52	mg/kg	0.001	MCERTS	-	-	-		
PCB Congener 101	mg/kg	0.001	MCERTS	-	-	-		
PCB Congener 118	mg/kg	0.001	MCERTS	-	-	-		
PCB Congener 138	mg/kg	0.001	MCERTS	-	-	-		
PCB Congener 153	mg/kg	0.001	MCERTS	-	-	-		
PCB Congener 180	mg/kg	0.001	MCERTS	-	-	-		
Total PCBs by GC-MS								
Total PCBs	mg/kg	0.007	MCERTS	-	-	-		



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Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

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

Quantitative Analysis

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

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

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

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1034468	WS16	0.40	143	Loose Fibres	Chrysotile	< 0.001	< 0.001

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



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1034482				
Sample Reference				WS27a				
Sample Number				None Supplied				
Depth (m)				0.70				
Date Sampled				22/08/2018				
Time Taken				None Supplied				
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status					

General Inorganics

pH	pH Units	N/A	ISO 17025	7.8				
Electrical Conductivity at 20 °C	µS/cm	10	ISO 17025	660				
Total Cyanide	µg/l	10	ISO 17025	< 10				
Sulphate as SO ₄	µg/l	45	ISO 17025	48000				
Sulphate as SO ₄	mg/l	0.045	ISO 17025	48.0				
Sulphide	µg/l	5	NONE	< 5.0				

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10				
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Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01				
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01				
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01				
Fluorene	µg/l	0.01	ISO 17025	< 0.01				
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01				
Anthracene	µg/l	0.01	ISO 17025	< 0.01				
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01				
Pyrene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01				
Chrysene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01				
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01				
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01				
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01				

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16				
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Heavy Metals / Metalloids

Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.88				
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.02				
Chromium (hexavalent)	µg/l	5	ISO 17025	6.5				
Chromium (dissolved)	µg/l	0.2	ISO 17025	11				
Copper (dissolved)	µg/l	0.5	ISO 17025	3.8				
Lead (dissolved)	µg/l	0.2	ISO 17025	0.5				
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05				
Nickel (dissolved)	µg/l	0.5	ISO 17025	1.0				
Selenium (dissolved)	µg/l	0.6	ISO 17025	2.2				
Zinc (dissolved)	µg/l	0.5	ISO 17025	1.4				

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10)	µg/l	10	ISO 17025	< 10.0				
Diesel Range Organics (C10 - C25)	µg/l	10	NONE	< 10				
TPH1 (C10 - C40)	µg/l	10	NONE	< 10				



Analytical Report Number: 18-98261

Project / Site name: Carrow Works

Your Order No: LP08079

Lab Sample Number				1034482			
Sample Reference				WS27a			
Sample Number				None Supplied			
Depth (m)				0.70			
Date Sampled				22/08/2018			
Time Taken				None Supplied			
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status				

VOCs

Chloromethane	µg/l	1	ISO 17025	< 1.0			
Chloroethane	µg/l	1	ISO 17025	< 1.0			
Bromomethane	µg/l	1	ISO 17025	< 1.0			
Vinyl Chloride	µg/l	1	NONE	< 1.0			
Trichlorofluoromethane	µg/l	1	NONE	< 1.0			
1,1-Dichloroethene	µg/l	1	ISO 17025	< 1.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	µg/l	1	ISO 17025	< 1.0			
Cis-1,2-dichloroethene	µg/l	1	ISO 17025	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0			
1,1-Dichloroethane	µg/l	1	ISO 17025	< 1.0			
2,2-Dichloropropane	µg/l	1	ISO 17025	< 1.0			
Trichloromethane	µg/l	1	ISO 17025	< 1.0			
1,1,1-Trichloroethane	µg/l	1	ISO 17025	< 1.0			
1,2-Dichloroethane	µg/l	1	ISO 17025	< 1.0			
1,1-Dichloropropene	µg/l	1	ISO 17025	< 1.0			
Trans-1,2-dichloroethene	µg/l	1	ISO 17025	< 1.0			
Benzene	µg/l	1	ISO 17025	< 1.0			
Tetrachloromethane	µg/l	1	ISO 17025	< 1.0			
1,2-Dichloropropane	µg/l	1	ISO 17025	< 1.0			
Trichloroethene	µg/l	1	ISO 17025	< 1.0			
Dibromomethane	µg/l	1	ISO 17025	< 1.0			
Bromodichloromethane	µg/l	1	ISO 17025	< 1.0			
Cis-1,3-dichloropropene	µg/l	1	ISO 17025	< 1.0			
Trans-1,3-dichloropropene	µg/l	1	ISO 17025	< 1.0			
Toluene	µg/l	1	ISO 17025	< 1.0			
1,1,2-Trichloroethane	µg/l	1	ISO 17025	< 1.0			
1,3-Dichloropropane	µg/l	1	ISO 17025	< 1.0			
Dibromochloromethane	µg/l	1	ISO 17025	< 1.0			
Tetrachloroethene	µg/l	1	ISO 17025	< 1.0			
1,2-Dibromoethane	µg/l	1	ISO 17025	< 1.0			
Chlorobenzene	µg/l	1	ISO 17025	< 1.0			
1,1,1,2-Tetrachloroethane	µg/l	1	ISO 17025	< 1.0			
Ethylbenzene	µg/l	1	ISO 17025	< 1.0			
p & m-Xylene	µg/l	1	ISO 17025	< 1.0			
Styrene	µg/l	1	ISO 17025	< 1.0			
Tribromomethane	µg/l	1	ISO 17025	< 1.0			
o-Xylene	µg/l	1	ISO 17025	< 1.0			
1,1,2,2-Tetrachloroethane	µg/l	1	ISO 17025	< 1.0			
Isopropylbenzene	µg/l	1	ISO 17025	< 1.0			
Bromobenzene	µg/l	1	ISO 17025	< 1.0			
n-Propylbenzene	µg/l	1	ISO 17025	< 1.0			
2-Chlorotoluene	µg/l	1	ISO 17025	< 1.0			
4-Chlorotoluene	µg/l	1	ISO 17025	< 1.0			
1,3,5-Trimethylbenzene	µg/l	1	ISO 17025	< 1.0			
tert-Butylbenzene	µg/l	1	ISO 17025	< 1.0			
1,2,4-Trimethylbenzene	µg/l	1	ISO 17025	< 1.0			
sec-Butylbenzene	µg/l	1	ISO 17025	< 1.0			
1,3-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0			
p-Isopropyltoluene	µg/l	1	ISO 17025	< 1.0			
1,2-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0			
1,4-Dichlorobenzene	µg/l	1	ISO 17025	< 1.0			
Butylbenzene	µg/l	1	ISO 17025	< 1.0			
1,2-Dibromo-3-chloropropane	µg/l	1	ISO 17025	< 1.0			
1,2,4-Trichlorobenzene	µg/l	1	ISO 17025	< 1.0			
Hexachlorobutadiene	µg/l	1	ISO 17025	< 1.0			
1,2,3-Trichlorobenzene	µg/l	1	ISO 17025	< 1.0			

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



Analytical Report Number : 18-98261

Project / Site name: Carrow Works

* 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 *
1034444	WS29	None Supplied	0.50	Beige clay with chalk and gravel.
1034445	WS29	None Supplied	3.80	Beige clay with chalk.
1034446	WS32	None Supplied	0.30	Light brown sand with rubble and gravel.
1034447	WS32	None Supplied	1.50	Brown sand with gravel.
1034448	WS30	None Supplied	0.50	Beige clay with chalk and gravel.
1034449	WS30	None Supplied	4.00	Beige clay with chalk.
1034450	WS31	None Supplied	0.60	Beige clay and sand with chalk and gravel.
1034451	WS15	None Supplied	0.17-0.50	Brown sand with gravel.
1034452	WS15	None Supplied	0.70-0.80	Beige clay with chalk and gravel.
1034453	WS15	None Supplied	4.80	Beige clay with chalk and gravel.
1034454	WS26	None Supplied	0.30	Brown loam and sand with brick and rubble.
1034455	WS17	None Supplied	0.30	Brown sand with gravel and stones.
1034456	WS17	None Supplied	0.80	Beige clay with chalk and gravel.
1034457	WS27a	None Supplied	0.30	Brown loam and sand with rubble and brick.
1034458	WS8	None Supplied	0.30	Black sand with gravel and stones.
1034459	WS8	None Supplied	0.80	Light brown sand with gravel and rubble.
1034460	WS8	None Supplied	4.20	Beige clay with chalk and gravel.
1034461	WS14	None Supplied	0.15-0.60	Brown loam and sand with gravel and rubble.
1034462	WS14	None Supplied	4.30	Beige clay with chalk.
1034463	WS12	None Supplied	0.40	Brown loam and sand with gravel and rubble.
1034464	WS12	None Supplied	1.70	Beige clay with gravel and stones.
1034465	WS12	None Supplied	2.80	Light brown clay and sand with gravel and rubble.
1034466	WS13	None Supplied	0.90	Light brown clay and sand with gravel and rubble.
1034467	WS13	None Supplied	2.40-2.50	Brown sandy clay with gravel.
1034468	WS16	None Supplied	0.40	Brown clay and sand with rubble and brick.
1034469	WS16	None Supplied	1.20	Brown sand with gravel and rubble.
1034470	WS16	None Supplied	2.60-2.80	Light brown clay and sand with gravel.
1034471	WS43	None Supplied	0.80-1.00	Light brown loam and sand with gravel.
1034472	WS42	None Supplied	0.60-1.00	Light brown loam and sand with gravel and vegetation.
1034473	WS10	None Supplied	0.30	Brown clay and sand with gravel and rubble.
1034474	WS10	None Supplied	1.40	Brown clay and sand with gravel and chalk.
1034475	WS11	None Supplied	0.67-1.00	Brown clay and sand with gravel and stones.
1034476	WS11	None Supplied	2.50-2.70	Light brown sandy clay with gravel.
1034477	WS11	None Supplied	3.15-3.40	Brown sandy clay with gravel.
1034478	WS4	None Supplied	0.15-0.50	Brown loam and clay with rubble and brick.
1034479	WS4	None Supplied	1.15-1.75	White clay and sand with chalk.
1034480	WS5	None Supplied	0.15-0.43	Brown clay and sand with brick and chalk.
1034481	WS5	None Supplied	4.90-5.00	White chalk. **

** Non MCERTS matrix.



Analytical Report Number : 18-98261

Project / Site name: Carrow Works

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
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
Electrical conductivity at 20oC of water	Determination of electrical conductivity in water by electrometric measurement. Accredited Matrices SW, GW, PW	In-house method	L031-PL	W	ISO 17025
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method by continuous flow analyser. Accredited Matrices SW, GW, PW.	L080-PL	W	ISO 17025
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
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	in-house method	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	W	ISO 17025
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
PRO (Waters)	Determination of hydrocarbons C6-C10 by headspace GC-MS. Accredited Matrices SW, PW. GW.	In-house method based on USEPA8260	L088-PL	W	ISO 17025



Analytical Report Number : 18-98261

Project / Site name: Carrow Works

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate in water	Determination of sulphate in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW, PrW.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Sulphide in water	Determination of sulphide in water by ion selective electrode.	In-house method	L029-PL	W	NONE
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests"	L009-PL	D	MCERTS
TPH1 (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Volatile organic compounds in water	Determination of volatile organic compounds in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025

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

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

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

Sample Deviation Report



Sample ID	Other ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
WS27a		W	18-98261	1034482	bc	Hexavalent chromium in water	L080-PL	c
WS27a		W	18-98261	1034482	bc	DRO (Waters)	L070-PL	c
WS27a		W	18-98261	1034482	bc	Electrical conductivity at 20oC of water	L031-PL	c
WS27a		W	18-98261	1034482	bc	Metals in water by ICP-MS (dissolved)	L012-PL	c
WS27a		W	18-98261	1034482	bc	PRO (Waters)	L088-PL	bc
WS27a		W	18-98261	1034482	bc	Sulphate in water	L039-PL	c
WS27a		W	18-98261	1034482	bc	Sulphide in water	L029-PL	c
WS27a		W	18-98261	1034482	bc	Total cyanide in water	L080-PL	c
WS27a		W	18-98261	1034482	bc	Volatile organic compounds in water	L073B-PL	bc
WS27a		W	18-98261	1034482	bc	pH at 20oC in water (automated)	L099-PL	c



Paul A.

Leap Environmental Ltd
The Atrium
Curtis Road
Dorking
Surrey
RH4 1XA

t: 01306646510
f: 01306646511
e: pa@leapenvironmental.com

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

t: 01923 225404
f: 01923 237404
e: reception@i2analytical.com

Analytical Report Number : 18-98816

Replaces Analytical Report Number : 18-98816, issue no. 1

Project / Site name:	Carrow Works	Samples received on:	31/08/2018
Your job number:	LP01671	Samples instructed on:	03/09/2018
Your order number:	LPO8079	Analysis completed by:	17/09/2018
Report Issue Number:	2	Report issued on:	17/09/2018
Samples Analysed:	33 soil samples		

Signed:

Jordan Hill
Reporting Manager
For & on behalf of i2 Analytical Ltd.

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

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

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037631			1037632			1037633			1037634			1037635		
Sample Reference	WS34			WS34			WS35			WS35			WS35		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.10-0.20			1.30-1.50			0.20-0.30			2.40-2.70			4.60-5.00		
Date Sampled	28/08/2018			28/08/2018			28/08/2018			28/08/2018			28/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	3.5	10	4.5	22	6.2							
Total mass of sample received	kg	0.001	NONE	1.3	1.3	0.83	1.0	0.51							

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	-	-
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.4	8.2	10.5	-	-
Total Organic Carbon (TOC)	%	0.1	MCERTS	3.0	0.4	2.3	-	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	0.56	< 0.05	0.18	-	-
Acenaphthene	mg/kg	0.05	MCERTS	0.34	< 0.05	1.3	-	-
Fluorene	mg/kg	0.05	MCERTS	0.25	< 0.05	0.85	-	-
Phenanthrene	mg/kg	0.05	MCERTS	4.3	2.1	21	-	-
Anthracene	mg/kg	0.05	MCERTS	1.4	0.45	3.9	-	-
Fluoranthene	mg/kg	0.05	MCERTS	14	3.0	30	-	-
Pyrene	mg/kg	0.05	MCERTS	13	2.6	26	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	9.1	1.0	12	-	-
Chrysene	mg/kg	0.05	MCERTS	6.2	1.1	11	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	12	1.3	13	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	5.0	0.46	7.2	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	10	1.1	13	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	13	1.4	16	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	2.7	< 0.05	3.1	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	19	1.8	21	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	112	16.3	180	-	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.9	7.6	9.2	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	-	-
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18	12	17	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	22	13	30	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	87	22	130	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	3.6	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15	9.7	15	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	58	26	87	-	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037631			1037632			1037633			1037634			1037635		
Sample Reference	WS34			WS34			WS35			WS35			WS35		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.10-0.20			1.30-1.50			0.20-0.30			2.40-2.70			4.60-5.00		
Date Sampled	28/08/2018			28/08/2018			28/08/2018			28/08/2018			28/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Compound	Units	Limit of detection	Accreditation Status	1037631	1037632	1037633	1037634	1037635
Benzene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Toluene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
p & m-xylene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
o-xylene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	-
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	-
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	-
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	15	-	4.1	< 2.0	-
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	44	-	14	< 8.0	-
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	650	-	210	< 8.0	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	710	-	230	< 10	-

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	-
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	-
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	-
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	3.1	-	2.8	< 1.0	-
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	14	-	8.8	< 2.0	-
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	420	-	130	< 10	-
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	3700	-	550	< 10	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	4200	-	700	< 10	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037631			1037632			1037633			1037634			1037635		
Sample Reference	WS34			WS34			WS35			WS35			WS35		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.10-0.20			1.30-1.50			0.20-0.30			2.40-2.70			4.60-5.00		
Date Sampled	28/08/2018			28/08/2018			28/08/2018			28/08/2018			28/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

VOCs

Compound	Units	Limit of detection	Accreditation Status	1037631	1037632	1037633	1037634	1037635
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
Chloroethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	< 1.0
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
Vinyl Chloride	µg/kg	1	NONE	-	< 1.0	-	< 1.0	< 1.0
Trichlorofluoromethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	< 1.0
1,1-Dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
2,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,1-Dichloropropene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	< 1.0
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Bromodichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Styrene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Tribromomethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	< 1.0
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
2-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
4-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
tert-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
sec-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
Hexachlorobutadiene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	< 1.0



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037631			1037632			1037633			1037634			1037635		
Sample Reference	WS34			WS34			WS35			WS35			WS35		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.10-0.20			1.30-1.50			0.20-0.30			2.40-2.70			4.60-5.00		
Date Sampled	28/08/2018			28/08/2018			28/08/2018			28/08/2018			28/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

SVOCs													
Analytical Parameter	Units	Limit of detection	Accreditation Status	1037631	1037632	1037633	1037634	1037635	1037631	1037632	1037633	1037634	1037635
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	< 0.1					
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	< 0.2	< 0.2					
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1					
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1					
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1					
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	< 0.05					
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	< 0.2	< 0.2					
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	< 0.05					
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	< 0.1					
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1					
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	< 0.1					
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1					
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	< 0.1	< 0.1					
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1					
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1					
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	< 0.1	< 0.1					
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	< 0.05					
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	< 0.05					
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	< 0.3	< 0.3					
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	< 0.05					
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
Phenanthrene	mg/kg	0.05	MCERTS	-	2.1	-	0.55	< 0.05					
Anthracene	mg/kg	0.05	MCERTS	-	0.45	-	< 0.05	< 0.05					
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	< 0.2					
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	< 0.3					
Fluoranthene	mg/kg	0.05	MCERTS	-	3.0	-	0.63	< 0.05					
Pyrene	mg/kg	0.05	MCERTS	-	2.6	-	0.53	< 0.05					
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	< 0.3	< 0.3					
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	1.0	-	0.41	< 0.05					
Chrysene	mg/kg	0.05	MCERTS	-	1.1	-	0.45	< 0.05					
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	1.3	-	0.49	< 0.05					
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	0.46	-	0.20	< 0.05					
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	1.1	-	0.39	< 0.05					
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	1.4	-	< 0.05	< 0.05					
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	< 0.05					
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	1.8	-	< 0.05	< 0.05					



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037636			1037637			1037638			1037639			1037640		
Sample Reference	WS49			WS49			WS49			WS48			WS45		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.20			1.80-2.00			4.20-4.40			0.00-0.10			0.10-0.30		
Date Sampled	28/08/2018			28/08/2018			28/08/2018			28/08/2018			28/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	17	7.4	5.8	3.9	9.5							
Total mass of sample received	kg	0.001	NONE	1.1	1.5	1.4	1.2	1.5							

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.9	8.3	-	9.3	9.0
Total Organic Carbon (TOC)	%	0.1	MCERTS	3.7	0.2	-	3.8	0.1

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.18	< 0.05	-	0.22	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.53	< 0.05	-	0.68	< 0.05
Pyrene	mg/kg	0.05	MCERTS	0.49	< 0.05	-	0.64	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.33	< 0.05	-	0.38	< 0.05
Chrysene	mg/kg	0.05	MCERTS	0.44	< 0.05	-	0.45	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.58	< 0.05	-	0.57	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.32	< 0.05	-	0.30	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.48	< 0.05	-	0.56	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.64	< 0.05	-	0.66	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.93	< 0.05	-	1.1	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	4.92	< 0.80	-	5.58	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	9.6	7.7	-	6.8	14
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.5	< 0.2	-	0.3	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	-	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	14	14	-	44	53
Copper (aqua regia extractable)	mg/kg	1	MCERTS	29	7.8	-	17	< 1.0
Lead (aqua regia extractable)	mg/kg	1	MCERTS	92	8.1	-	31	12
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.6	< 0.3	-	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	13	12	-	14	27
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	140	22	-	70	65



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037636			1037637			1037638			1037639			1037640		
Sample Reference	WS49			WS49			WS49			WS48			WS45		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.00-0.20			1.80-2.00			4.20-4.40			0.00-0.10			0.10-0.30		
Date Sampled	28/08/2018			28/08/2018			28/08/2018			28/08/2018			28/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Compound	Units	Limit of detection	Accreditation Status	1037636	1037637	1037638	1037639	1037640
Benzene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Toluene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
p & m-xylene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
o-xylene	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	< 2.0	-	< 2.0
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	-	< 8.0	< 8.0	-	< 8.0
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	-	< 8.0	< 8.0	-	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	< 10	-	< 10

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	-	< 0.001	< 0.001	-	< 0.001
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	-	< 2.0	< 2.0	-	< 2.0
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	-	< 10	< 10	-	< 10
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	-	< 10	< 10	-	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	< 10	< 10	-	< 10



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037636	1037637	1037638	1037639	1037640
Sample Reference				WS49	WS49	WS49	WS48	WS45
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.20	1.80-2.00	4.20-4.40	0.00-0.10	0.10-0.30
Date Sampled				28/08/2018	28/08/2018	28/08/2018	28/08/2018	28/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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	-	-	-	-	-
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	-	-	-	-	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037636	1037637	1037638	1037639	1037640
Sample Reference				WS49	WS49	WS49	WS48	WS45
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.00-0.20	1.80-2.00	4.20-4.40	0.00-0.10	0.10-0.30
Date Sampled				28/08/2018	28/08/2018	28/08/2018	28/08/2018	28/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037641	1037642	1037643	1037644	1037645			
Sample Reference	WS45	WS44	WS44	WS47	WS47			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	1.00	0.10-0.20	1.00	0.30-0.60	1.00			
Date Sampled	28/08/2018	29/08/2018	29/08/2018	29/08/2018	29/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	8.4	7.6	9.9	9.9	7.3
Total mass of sample received	kg	0.001	NONE	1.3	1.3	1.1	1.3	1.4

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	-	-	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-	10.8	-	11.4	-
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	0.2	-	0.3	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	-	0.34	-	< 0.05	-
Fluorene	mg/kg	0.05	MCERTS	-	0.12	-	< 0.05	-
Phenanthrene	mg/kg	0.05	MCERTS	-	8.9	-	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	-	0.86	-	< 0.05	-
Fluoranthene	mg/kg	0.05	MCERTS	-	8.5	-	< 0.05	-
Pyrene	mg/kg	0.05	MCERTS	-	7.0	-	< 0.05	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	3.7	-	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	-	2.7	-	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	4.2	-	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	1.3	-	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	2.4	-	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	3.7	-	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	4.4	-	< 0.05	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	48.1	-	< 0.80	-
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	7.6	-	9.1	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	-	< 0.2	-
Chromium (hexavalent)	mg/kg	4	MCERTS	-	< 4.0	-	< 4.0	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	22	-	18	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	9.5	-	14	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	7.4	-	22	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	-	< 0.3	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	15	-	14	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	47	-	51	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037641			1037642			1037643			1037644			1037645		
Sample Reference	WS45			WS44			WS44			WS47			WS47		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	1.00			0.10-0.20			1.00			0.30-0.60			1.00		
Date Sampled	28/08/2018			29/08/2018			29/08/2018			29/08/2018			29/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Compound	Units	Limit of detection	Accreditation Status	1037641	1037642	1037643	1037644	1037645
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	4.2	< 1.0
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	14	< 2.0
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	26	< 8.0
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	13	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	58	< 10

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	5.8	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	< 10	57	< 10	15	< 10
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	< 10	77	< 10	23	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	140	< 10	40	< 10



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037641	1037642	1037643	1037644	1037645
Sample Reference				WS45	WS44	WS44	WS47	WS47
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.10-0.20	1.00	0.30-0.60	1.00
Date Sampled				28/08/2018	29/08/2018	29/08/2018	29/08/2018	29/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
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	-	-	-	-	-
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	-	-	-	-	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037641	1037642	1037643	1037644	1037645
Sample Reference				WS45	WS44	WS44	WS47	WS47
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.00	0.10-0.20	1.00	0.30-0.60	1.00
Date Sampled				28/08/2018	29/08/2018	29/08/2018	29/08/2018	29/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	-	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	-	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	-	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	-	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037646	1037647	1037648	1037649	1037650			
Sample Reference	WS40	WS40	WS41	WS41	WS33			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	0.60	3.20	0.20-0.40	1.60-1.80	0.20-0.40			
Date Sampled	29/08/2018	29/08/2018	29/08/2018	29/09/2018	29/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	9.5	22	4.0	2.8	9.1
Total mass of sample received	kg	0.001	NONE	1.3	1.1	1.3	1.3	1.3

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	-	-	Chrysotile
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	Not-detected	Detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	-	-	< 0.001
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	-	-	< 0.001

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.9	-	11.3	8.2	8.9
Total Organic Carbon (TOC)	%	0.1	MCERTS	0.3	-	1.5	< 0.1	0.4

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	1.4	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	1.5	< 0.05	1.1
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	1.6	< 0.05	0.60
Phenanthrene	mg/kg	0.05	MCERTS	0.90	-	38	0.22	4.5
Anthracene	mg/kg	0.05	MCERTS	0.18	-	5.9	< 0.05	1.4
Fluoranthene	mg/kg	0.05	MCERTS	0.92	-	52	0.32	8.0
Pyrene	mg/kg	0.05	MCERTS	0.71	-	40	0.29	7.5
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.29	-	20	0.12	2.7
Chrysene	mg/kg	0.05	MCERTS	0.32	-	15	0.16	1.9
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.28	-	21	< 0.05	3.0
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.12	-	5.2	< 0.05	1.2
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.26	-	13	< 0.05	2.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	8.4	< 0.05	1.6
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	2.2	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	9.6	< 0.05	2.1

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	3.98	-	234	1.11	38.2
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.1	-	12	10	7.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	0.4	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	-	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	10	-	15	16	12
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.7	-	12	11	11
Lead (aqua regia extractable)	mg/kg	1	MCERTS	11	-	10	20	190
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	0.5
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	8.5	-	13	21	8.3
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	22	-	40	33	75



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037646			1037647			1037648			1037649			1037650		
Sample Reference	WS40			WS40			WS41			WS41			WS33		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.60			3.20			0.20-0.40			1.60-1.80			0.20-0.40		
Date Sampled	29/08/2018			29/08/2018			29/08/2018			29/09/2018			29/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Compound	Units	Limit of detection	Accreditation Status									
Benzene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0	
Toluene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0	
Ethylbenzene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0	
p & m-xylene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0	
o-xylene	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0	
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0	

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.001	MCERTS									
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	< 0.001	
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	< 0.001	
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0	
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-	-	-	3.8	
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	-	-	-	-	-	-	-	< 8.0	
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	-	-	-	-	-	-	-	11	
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-	-	-	20	

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS									
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	< 0.001	
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	-	-	-	-	-	-	-	< 0.001	
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	-	-	-	-	-	-	-	< 1.0	
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	-	-	-	-	-	-	-	7.2	
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	-	-	-	-	-	-	-	59	
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	-	-	-	-	-	-	-	100	
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	-	-	-	-	-	-	-	170	



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037646	1037647	1037648	1037649	1037650
Sample Reference				WS40	WS40	WS41	WS41	WS33
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	3.20	0.20-0.40	1.60-1.80	0.20-0.40
Date Sampled				29/08/2018	29/08/2018	29/08/2018	29/09/2018	29/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Chloroethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Styrene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Tribromomethane	µg/kg	1	NONE	-	< 1.0	-	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	-	< 1.0	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	< 1.0	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037646	1037647	1037648	1037649	1037650
Sample Reference				WS40	WS40	WS41	WS41	WS33
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	3.20	0.20-0.40	1.60-1.80	0.20-0.40
Date Sampled				29/08/2018	29/08/2018	29/08/2018	29/09/2018	29/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037651			1037652		1037653		1037654		1037655	
Sample Reference	WS33			WS28		WS28		WS28		WS21	
Sample Number	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Depth (m)	1.20-1.50			0.10-0.30		1.80-2.40		3.50		0.20-0.50	
Date Sampled	29/08/2018			29/08/2018		29/08/2018		29/08/2018		30/08/2018	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status								
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	N/A	NONE	12	6.2	15	35	9.7			
Total mass of sample received	kg	0.001	NONE	1.1	1.2	1.2	1.1	1.2			

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile	-	-	-
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	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-	9.1	8.9	-	8.8
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	2.4	1.8	-	0.5

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	17	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	0.38	< 0.05	-	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	-	15	< 0.05	-	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	10	< 0.05	-	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	-	47	0.32	-	< 0.05
Anthracene	mg/kg	0.05	MCERTS	-	13	< 0.05	-	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	-	38	0.41	-	< 0.05
Pyrene	mg/kg	0.05	MCERTS	-	30	0.31	-	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	13	0.24	-	< 0.05
Chrysene	mg/kg	0.05	MCERTS	-	10	0.27	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	12	0.33	-	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	6.0	0.15	-	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	11	0.24	-	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	5.5	< 0.05	-	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	1.2	< 0.05	-	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	7.1	< 0.05	-	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	237	2.27	-	< 0.80
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	13	18	-	9.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	< 0.2	-	0.4
Chromium (hexavalent)	mg/kg	4	MCERTS	-	< 4.0	< 4.0	-	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	26	11	-	11
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	30	240	-	33
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	100	140	-	170
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	< 0.3	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	17	18	-	12
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	1.9	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	81	70	-	120



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037651			1037652			1037653			1037654			1037655		
Sample Reference	WS33			WS28			WS28			WS28			WS21		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	1.20-1.50			0.10-0.30			1.80-2.40			3.50			0.20-0.50		
Date Sampled	29/08/2018			29/08/2018			29/08/2018			29/08/2018			30/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Compound	Units	Limit of detection	Accreditation Status	1037651	1037652	1037653	1037654	1037655
Benzene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Toluene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
p & m-xylene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
o-xylene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	2.7
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	< 2.0	< 2.0	59
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	-	< 8.0	< 8.0	30
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	< 8.0	-	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	-	< 10	< 10	93

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	5.7
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	< 2.0	< 2.0	24
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	< 10	-	< 10	< 10	11
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	< 10	-	< 10	< 10	25
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	10	-	< 10	< 10	66



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037651	1037652	1037653	1037654	1037655
Sample Reference				WS33	WS28	WS28	WS28	WS21
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20-1.50	0.10-0.30	1.80-2.40	3.50	0.20-0.50
Date Sampled				29/08/2018	29/08/2018	29/08/2018	29/08/2018	30/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Tribromomethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037651	1037652	1037653	1037654	1037655
Sample Reference				WS33	WS28	WS28	WS28	WS21
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20-1.50	0.10-0.30	1.80-2.40	3.50	0.20-0.50
Date Sampled				29/08/2018	29/08/2018	29/08/2018	29/08/2018	30/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	0.22	-	-	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	0.14	-	-	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	0.72	-	-	< 0.05	-
Anthracene	mg/kg	0.05	MCERTS	0.19	-	-	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	0.63	-	-	< 0.05	-
Pyrene	mg/kg	0.05	MCERTS	0.53	-	-	< 0.05	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.19	-	-	< 0.05	-
Chrysene	mg/kg	0.05	MCERTS	0.23	-	-	< 0.05	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037656	1037657	1037658	1037659	1037660			
Sample Reference	WS21	WS20	WS20	WS20	WS18			
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Depth (m)	3.20-3.60	0.30-0.50	1.50	4.40	0.20-0.50			
Date Sampled	30/08/2018	30/08/2018	30/08/2018	30/08/2018	30/08/2018			
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	46	8.4	14	18	6.4
Total mass of sample received	kg	0.001	NONE	0.78	1.1	1.0	0.46	1.2

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile & Crocidolite	-	-	-
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	-	-	-

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-	9.2	10.3	-	10.4
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	0.8	0.8	-	0.7

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.22
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.59
Fluorene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	0.47
Phenanthrene	mg/kg	0.05	MCERTS	-	2.9	0.27	-	7.3
Anthracene	mg/kg	0.05	MCERTS	-	0.81	< 0.05	-	1.5
Fluoranthene	mg/kg	0.05	MCERTS	-	8.0	0.71	-	15
Pyrene	mg/kg	0.05	MCERTS	-	7.0	0.63	-	13
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	4.6	0.29	-	7.7
Chrysene	mg/kg	0.05	MCERTS	-	3.0	0.38	-	6.7
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	4.4	0.46	-	8.2
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	2.0	0.15	-	3.2
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	3.6	0.33	-	6.3
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	1.8	< 0.05	-	6.2
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	-	1.8
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	2.4	< 0.05	-	7.6

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	40.6	3.22	-	86.2
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	13	7.7	-	10
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	0.4	-	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	-	< 4.0	< 4.0	-	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	14	15	-	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	33	61	-	20
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	510	540	-	75
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	0.6	0.6	-	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	14	12	-	14
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	-	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	110	130	-	67



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037656			1037657			1037658			1037659			1037660		
Sample Reference	WS21			WS20			WS20			WS20			WS18		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	3.20-3.60			0.30-0.50			1.50			4.40			0.20-0.50		
Date Sampled	30/08/2018			30/08/2018			30/08/2018			30/08/2018			30/08/2018		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status												

Monoaromatics

Compound	Units	Limit of detection	Accreditation Status	1037656	1037657	1037658	1037659	1037660
Benzene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Toluene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
p & m-xylene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
o-xylene	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	-	< 1.0	-	-

Petroleum Hydrocarbons

TPH-CWG - Aliphatic > EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aliphatic > EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aliphatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aliphatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
TPH-CWG - Aliphatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	< 2.0	-	-
TPH-CWG - Aliphatic > EC16 - EC21	mg/kg	8	MCERTS	< 8.0	-	< 8.0	-	-
TPH-CWG - Aliphatic > EC21 - EC35	mg/kg	8	MCERTS	< 8.0	-	< 8.0	-	-
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	-	< 10	-	-

TPH-CWG - Aromatic > EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aromatic > EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aromatic > EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	< 0.001	-	-
TPH-CWG - Aromatic > EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	< 1.0	-	-
TPH-CWG - Aromatic > EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	< 2.0	-	-
TPH-CWG - Aromatic > EC16 - EC21	mg/kg	10	MCERTS	< 10	-	< 10	-	-
TPH-CWG - Aromatic > EC21 - EC35	mg/kg	10	MCERTS	< 10	-	< 10	-	-
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	11	-	< 10	-	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037656	1037657	1037658	1037659	1037660
Sample Reference				WS21	WS20	WS20	WS20	WS18
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.20-3.60	0.30-0.50	1.50	4.40	0.20-0.50
Date Sampled				30/08/2018	30/08/2018	30/08/2018	30/08/2018	30/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Chloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Tribromomethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037656	1037657	1037658	1037659	1037660
Sample Reference				WS21	WS20	WS20	WS20	WS18
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				3.20-3.60	0.30-0.50	1.50	4.40	0.20-0.50
Date Sampled				30/08/2018	30/08/2018	30/08/2018	30/08/2018	30/08/2018
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	< 0.2	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	< 0.2	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Phenanthrene	mg/kg	0.05	MCERTS	0.24	-	0.27	0.27	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	-
Fluoranthene	mg/kg	0.05	MCERTS	0.55	-	0.71	0.59	-
Pyrene	mg/kg	0.05	MCERTS	0.49	-	0.63	0.49	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	< 0.3	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.30	-	0.29	0.26	-
Chrysene	mg/kg	0.05	MCERTS	0.31	-	0.38	0.30	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	0.37	-	0.46	0.27	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	0.12	-	0.15	0.14	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.30	-	0.33	0.22	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	-



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number	1037661			1037662			1037663		
Sample Reference	WS18			WS22			WS22		
Sample Number	None Supplied			None Supplied			None Supplied		
Depth (m)	3.20			0.20-0.40			3.20-3.40		
Date Sampled	30/08/2018			30/08/2018			30/08/2018		
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	%	N/A	NONE	27	6.2	26			
Total mass of sample received	kg	0.001	NONE	0.91	1.2	0.83			

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	Chrysotile	-		
Asbestos in Soil	Type	N/A	ISO 17025	-	Detected	-		
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	< 0.001	-		
Asbestos Quantification Total	%	0.001	ISO 17025	-	< 0.001	-		

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-	11.4	-		
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	1.4	-		

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-		
Acenaphthylene	mg/kg	0.05	MCERTS	-	< 0.05	-		
Acenaphthene	mg/kg	0.05	MCERTS	-	0.69	-		
Fluorene	mg/kg	0.05	MCERTS	-	0.56	-		
Phenanthrene	mg/kg	0.05	MCERTS	-	5.6	-		
Anthracene	mg/kg	0.05	MCERTS	-	1.2	-		
Fluoranthene	mg/kg	0.05	MCERTS	-	9.6	-		
Pyrene	mg/kg	0.05	MCERTS	-	7.2	-		
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	3.9	-		
Chrysene	mg/kg	0.05	MCERTS	-	3.2	-		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-	3.5	-		
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-	1.5	-		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	3.0	-		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	3.0	-		
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	1.0	-		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	3.6	-		

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-	47.6	-		
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Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	8.8	-		
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	< 0.2	-		
Chromium (hexavalent)	mg/kg	4	MCERTS	-	< 4.0	-		
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	16	-		
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	35	-		
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	150	-		
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	< 0.3	-		
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	14	-		
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	-		
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	110	-		



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037661	1037662	1037663		
Sample Reference				WS18	WS22	WS22		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				3.20	0.20-0.40	3.20-3.40		
Date Sampled				30/08/2018	30/08/2018	30/08/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					

Monoaromatics

Benzene	ug/kg	1	MCERTS	< 1.0	-	-		
Toluene	ug/kg	1	MCERTS	< 1.0	-	-		
Ethylbenzene	ug/kg	1	MCERTS	< 1.0	-	-		
p & m-xylene	ug/kg	1	MCERTS	< 1.0	-	-		
o-xylene	ug/kg	1	MCERTS	< 1.0	-	-		
MTBE (Methyl Tertiary Butyl Ether)	ug/kg	1	MCERTS	< 1.0	-	-		

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	-	-		
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	-		
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	-		
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	-	-		
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	-	-		
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	-	-		
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	13	-	-		
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	14	-	-		

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	-	-		
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	-	-		
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	-	-		
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	1.8	-	-		
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	7.2	-	-		
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	160	-	-		
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	420	-	-		
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	590	-	-		



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037661	1037662	1037663		
Sample Reference				WS18	WS22	WS22		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				3.20	0.20-0.40	3.20-3.40		
Date Sampled				30/08/2018	30/08/2018	30/08/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
Chloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0		
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
Vinyl Chloride	µg/kg	1	NONE	< 1.0	-	< 1.0		
Trichlorofluoromethane	µg/kg	1	NONE	< 1.0	-	< 1.0		
1,1-Dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0		
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
2,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,1-Dichloropropene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0		
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Bromodichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
Tetrachloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0		
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,1,1,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Tribromomethane	µg/kg	1	NONE	< 1.0	-	< 1.0		
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Isopropylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
2-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
4-Chlorotoluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
tert-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
sec-Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Butylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
Hexachlorobutadiene	µg/kg	1	MCERTS	< 1.0	-	< 1.0		
1,2,3-Trichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0		



Analytical Report Number: 18-98816

Project / Site name: Carrow Works

Your Order No: LPO8079

Lab Sample Number				1037661	1037662	1037663		
Sample Reference				WS18	WS22	WS22		
Sample Number				None Supplied	None Supplied	None Supplied		
Depth (m)				3.20	0.20-0.40	3.20-3.40		
Date Sampled				30/08/2018	30/08/2018	30/08/2018		
Time Taken				None Supplied	None Supplied	None Supplied		
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1		
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	< 0.2		
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2		
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2		
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2		
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3		
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05		
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3		
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	< 0.2		
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2		
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3		
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3		
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3		
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3		
Naphthalene	mg/kg	0.05	MCERTS	1.2	-	< 0.05		
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3		
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1		
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	< 0.1		
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2		
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	< 0.1		
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1		
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05		
Acenaphthene	mg/kg	0.05	MCERTS	0.89	-	< 0.05		
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2		
Dibenzofuran	mg/kg	0.2	MCERTS	0.9	-	< 0.2		
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3		
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2		
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2		
Fluorene	mg/kg	0.05	MCERTS	1.1	-	< 0.05		
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3		
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2		
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3		
Phenanthrene	mg/kg	0.05	MCERTS	14	-	0.42		
Anthracene	mg/kg	0.05	MCERTS	2.3	-	< 0.05		
Carbazole	mg/kg	0.3	MCERTS	2.0	-	< 0.3		
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2		
Anthraquinone	mg/kg	0.3	MCERTS	0.5	-	< 0.3		
Fluoranthene	mg/kg	0.05	MCERTS	13	-	0.93		
Pyrene	mg/kg	0.05	MCERTS	9.9	-	0.81		
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3		
Benzo(a)anthracene	mg/kg	0.05	MCERTS	6.0	-	0.40		
Chrysene	mg/kg	0.05	MCERTS	5.4	-	0.45		
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	6.0	-	0.46		
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.4	-	0.21		
Benzo(a)pyrene	mg/kg	0.05	MCERTS	5.5	-	0.36		
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	4.9	-	< 0.05		
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	1.7	-	< 0.05		
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	6.7	-	< 0.05		



Analytical Report Number: 18-98816
Project / Site name: Carrow Works
Your Order No: LPO8079

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

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

Quantitative Analysis

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

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

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

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
1037650	WS33	0.20-0.40	146	Loose Fibres	Chrysotile	< 0.001	< 0.001
1037652	WS28	0.10-0.30	143	Loose Fibres	Chrysotile	< 0.001	< 0.001
1037657	WS20	0.30-0.50	143	Hard/Cement Type Material	Chrysotile & Crocidolite	0.001	0.001
1037662	WS22	0.20-0.40	148	Hard/Cement Type Material	Chrysotile	< 0.001	< 0.001

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



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* 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 *
1037631	WS34	None Supplied	0.10-0.20	Brown loam and sand with gravel and brick.
1037632	WS34	None Supplied	1.30-1.50	Brown sandy clay with gravel.
1037633	WS35	None Supplied	0.20-0.30	Brown loam and sand with gravel.
1037634	WS35	None Supplied	2.40-2.70	Brown clay and sand with gravel.
1037635	WS35	None Supplied	4.60-5.00	Light grey sand with gravel.
1037636	WS49	None Supplied	0.00-0.20	Brown loam and sand with gravel and vegetation.
1037637	WS49	None Supplied	1.80-2.00	Brown sandy clay with gravel.
1037638	WS49	None Supplied	4.20-4.40	Brown sandy clay with gravel.
1037639	WS48	None Supplied	0.00-0.10	Brown loam and sand with gravel and rubble.
1037640	WS45	None Supplied	0.10-0.30	Light brown sand with gravel.
1037641	WS45	None Supplied	1.00	Brown sandy loam with gravel.
1037642	WS44	None Supplied	0.10-0.20	Light brown sand with gravel.
1037643	WS44	None Supplied	1.00	Brown clay and sand with gravel.
1037644	WS47	None Supplied	0.30-0.60	Brown clay and sand with gravel and brick.
1037645	WS47	None Supplied	1.00	Brown sandy clay with gravel and brick.
1037646	WS40	None Supplied	0.60	Brown sandy clay with gravel and brick.
1037647	WS40	None Supplied	3.20	White chalk with gravel.
1037648	WS41	None Supplied	0.20-0.40	Brown loam and sand with gravel and rubble.
1037649	WS41	None Supplied	1.60-1.80	Brown clay and sand with gravel.
1037650	WS33	None Supplied	0.20-0.40	Brown sand with gravel and brick.
1037651	WS33	None Supplied	1.20-1.50	Brown clay and sand with gravel and chalk.
1037652	WS28	None Supplied	0.10-0.30	Brown loam and sand with gravel and rubble.
1037653	WS28	None Supplied	1.80-2.40	Brown clay and sand with gravel and rubble.
1037654	WS28	None Supplied	3.50	Black clay and sand with gravel.
1037655	WS21	None Supplied	0.20-0.50	Brown clay and sand with gravel and brick.
1037656	WS21	None Supplied	3.20-3.60	Brown clay and loam with gravel and vegetation.
1037657	WS20	None Supplied	0.30-0.50	Light brown loam and sand with gravel and brick.
1037658	WS20	None Supplied	1.50	Light brown clay and sand with gravel and brick.
1037659	WS20	None Supplied	4.40	Brown sandy clay with gravel.
1037660	WS18	None Supplied	0.20-0.50	Light brown clay and sand with gravel and brick.
1037661	WS18	None Supplied	3.20	Brown clay and loam with gravel and brick.
1037662	WS22	None Supplied	0.20-0.40	Light brown loam and sand with gravel and rubble.
1037663	WS22	None Supplied	3.20-3.40	Brown clay and sand with gravel and chalk.



Analytical Report Number : 18-98816

Project / Site name: Carrow Works

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
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
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L009-PL	D	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS

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

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

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

Sample Deviation Report



Sample ID	Other ID	Sample Type	Job	Sample Number	Sample Deviation Code	test_name	test_ref	Test Deviation code
WS35		S	18-98816	1037633	b	BTEX and MTBE in soil (Monoaromatics)	L073B-PL	b
WS35		S	18-98816	1037633	b	Speciated EPA-16 PAHs in soil	L064-PL	b
WS35		S	18-98816	1037633	b	TPHCWG (Soil)	L088/76-PL	b