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Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
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Atkins Global Ltd
Project Jonah site office
Llan Coed House
Suite 24
Coed Darcy
Llandarcy
SA10 6HJ

Attention: John Fitzgerald

CERTIFICATE OF ANALYSIS

Date of report Generation:	27 March 2021
Customer:	Atkins Global Ltd
Sample Delivery Group (SDG):	210312-116
Your Reference:	
Location:	Llanwern
Report No:	592300

This report has been revised and directly supersedes 590911 in its entirety.

We received 6 samples on Friday March 12, 2021 and 6 of these samples were scheduled for analysis which was completed on Saturday March 27, 2021. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

All sample data is provided by the customer. The reported results relate to the sample supplied, and on the basis that this data is correct.
Incorrect sampling dates and/or sample information will affect the validity of results.

Approved By:

Sonia McWhan

Operations Manager

ALS Life Sciences Limited. Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No. 4057291.

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

Received Sample Overview

Lab Sample No(s)	Customer Sample Ref.	AGS Ref.	Depth (m)	Sampled Date
23889077	D5-C		0.00 - 0.00	11/03/2021
23889178	D2-S		0.00 - 0.00	11/03/2021
23889145	EWD-E		0.00 - 0.00	11/03/2021
23889158	KW-C		0.00 - 0.00	11/03/2021
23889110	ML-N		0.00 - 0.00	11/03/2021
23889127	R3-C		0.00 - 0.00	11/03/2021

Only received samples which have had analysis scheduled will be shown on the following pages.

Validated

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)																					23889077	23889178	23889145
Customer Sample Reference																					D5-C	D2-S	EWD-E
AGS Reference																							
Depth (m)																					0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Container																					0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	HNO3 Unfiltered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	HNO3 Unfiltered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)
Sample Type																					SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 6																						X									X					
Anions by Kone (w)	All	NDPs: 0 Tests: 6																				X										X					
BOD True Total	All	NDPs: 0 Tests: 6																				X										X					
COD Unfiltered	All	NDPs: 0 Tests: 6																				X										X					
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 6																				X										X					
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 6																											X								
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 6																							X									X			
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 6	X																		X										X						X
Dissolved Oxygen by Probe	All	NDPs: 0 Tests: 6																				X										X					
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 6																					X										X				
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 6																					X										X				
Fluoride	All	NDPs: 0 Tests: 6																				X										X					
GRO by GC-FID (W)	All	NDPs: 0 Tests: 6																												X						X	
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 6																				X										X					
Mercury Dissolved	All	NDPs: 0 Tests: 6																							X									X			

23889110	ML-N		0.00 - 0.00	HNO3 Filtered (ALE204)	SW								X										X
				H2SO4 (ALE244)	SW		X																
				250ml Amber Gl. PTFE/PE (ALE219)	SW												X		X				
				1lplastic (ALE221)	SW			X		X		X		X				X				X	
				0.5l glass bottle (ALE227)	SW										X								
23889158	KW-C		0.00 - 0.00	ZnAc (ALE246)	SW																		
				Vial (ALE297)	SW																X		
				NaOH (ALE245)	SW							X											
				HNO3 Filtered (ALE204)	SW								X										X
				H2SO4 (ALE244)	SW		X																
				250ml Amber Gl. PTFE/PE (ALE219)	SW												X		X				
				1lplastic (ALE221)	SW			X		X		X		X				X				X	
				0.5l glass bottle (ALE227)	SW										X								
23889145	EWD-E		0.00 - 0.00	ZnAc (ALE246)	SW																		
				Vial (ALE297)	SW																X		
				NaOH (ALE245)	SW							X											
				HNO3 Unfiltered (ALE204)	SW																		
				HNO3 Filtered (ALE204)	SW								X										X
				H2SO4 (ALE244)	SW		X																
				250ml Amber Gl. PTFE/PE (ALE219)	SW												X		X				
				1lplastic (ALE221)	SW			X		X		X		X				X				X	

Validated

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			23889077									23889178									23889145
Customer Sample Reference			D5-C									D2-S									EWD-E
AGS Reference																					
Depth (m)			0.00 - 0.00									0.00 - 0.00									0.00 - 0.00
Container			0.5l glass bottle (ALE227)	1plastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	HNO3 Unfiltered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1plastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	HNO3 Unfiltered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)
Sample Type			SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Mercury Unfiltered	All	NDPs: 0 Tests: 6						X									X				
PAH in waters by GC-MS (diss.filt)	All	NDPs: 0 Tests: 6	X									X									X
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 6			X									X							
pH Value	All	NDPs: 0 Tests: 6		X									X								
Phenols by HPLC (W)	All	NDPs: 0 Tests: 6				X									X						
Phosphate by Kone (w)	All	NDPs: 0 Tests: 6		X									X								
Redox Potential	All	NDPs: 0 Tests: 6	X									X									X
Sulphide	All	NDPs: 0 Tests: 6									X									X	
Sulphur Dissolved by ICP-OES	All	NDPs: 0 Tests: 6		X									X								
Suspended Solids	All	NDPs: 0 Tests: 6		X									X								
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 6	X									X									X
Total Dissolved Solids	All	NDPs: 0 Tests: 6		X									X								
Total Metals by ICP-MS	All	NDPs: 0 Tests: 6						X									X				
Total Organic Carbon*	All	NDPs: 0 Tests: 6	X									X									X
TPH CWG (W)	All	NDPs: 0 Tests: 6	X									X									X

23889110	ML-N		0.00 - 0.00	HNO3 Filtered (ALE204)	SW																
				H2SO4 (ALE244)	SW						X										
				250ml Amber Gl. PTFE/PE (ALE219)	SW			X													
				1lplastic (ALE221)	SW	X			X			X				X	X		X	X		
				0.5l glass bottle (ALE227)	SW		X						X					X			X	X
23889158	KW-C		0.00 - 0.00	ZnAc (ALE246)	SW									X							
				Vial (ALE297)	SW																
				NaOH (ALE245)	SW																
				HNO3 Filtered (ALE204)	SW																
				H2SO4 (ALE244)	SW						X										
				250ml Amber Gl. PTFE/PE (ALE219)	SW			X													
				1lplastic (ALE221)	SW	X			X			X				X	X		X	X		
				0.5l glass bottle (ALE227)	SW		X						X					X			X	X
23889145	EWD-E		0.00 - 0.00	ZnAc (ALE246)	SW									X							
				Vial (ALE297)	SW																
				NaOH (ALE245)	SW																
				HNO3 Unfiltered (ALE204)	SW	X														X		
				HNO3 Filtered (ALE204)	SW																
				H2SO4 (ALE244)	SW						X										
				250ml Amber Gl. PTFE/PE (ALE219)	SW			X													
				1lplastic (ALE221)	SW				X			X				X	X		X			

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

Results Legend

- X — Test
- N — No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Lab Sample No(s)			23889077									23889178									23889145
Customer Sample Reference			D5-C									D2-S									EWD-E
AGS Reference																					
Depth (m)			0.00 - 0.00									0.00 - 0.00									0.00 - 0.00
Container			0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	HNO3 Unfiltered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	HNO3 Unfiltered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)
Sample Type			SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Turbidity in waters	All	NDPs: 0 Tests: 6		X									X								
VOC MS (W)	All	NDPs: 0 Tests: 6								X									X		

23889110	ML-N		0.00 - 0.00	HNO3 Filtered (ALE204)	SW				
				H2SO4 (ALE244)	SW				
				250ml Amber Gl. PTFE/PE (ALE219)	SW				
				1lplastic (ALE221)	SW		X		
				0.5l glass bottle (ALE227)	SW				
23889158	KW-C		0.00 - 0.00	ZnAc (ALE246)	SW				
				Vial (ALE297)	SW				X
				NaOH (ALE245)	SW				
				HNO3 Filtered (ALE204)	SW				
				H2SO4 (ALE244)	SW				
				250ml Amber Gl. PTFE/PE (ALE219)	SW				
				1lplastic (ALE221)	SW		X		
				0.5l glass bottle (ALE227)	SW				
23889145	EWD-E		0.00 - 0.00	ZnAc (ALE246)	SW				
				Vial (ALE297)	SW				X
				NaOH (ALE245)	SW				
				HNO3 Unfiltered (ALE204)	SW				
				HNO3 Filtered (ALE204)	SW				
				H2SO4 (ALE244)	SW				
				250ml Amber Gl. PTFE/PE (ALE219)	SW				
				1lplastic (ALE221)	SW		X		

Validated

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)					2389110									2389127
Customer Sample Reference					ML-N									R3-C
AGS Reference														
Depth (m)					0.00 - 0.00									0.00 - 0.00
Container					NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	HNO3 Unfiltered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type					SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Ammoniacal Nitrogen	All	NDPs: 0 Tests: 6									X					
Anions by Kone (w)	All	NDPs: 0 Tests: 6							X							
BOD True Total	All	NDPs: 0 Tests: 6							X							
COD Unfiltered	All	NDPs: 0 Tests: 6							X							
Conductivity (at 20 deg.C)	All	NDPs: 0 Tests: 6							X							
Cyanide Comp/Free/Total/Thiocyanate	All	NDPs: 0 Tests: 6			X									X		
Dissolved Metals by ICP-MS	All	NDPs: 0 Tests: 6										X				
Dissolved Organic/Inorganic Carbon	All	NDPs: 0 Tests: 6						X								
Dissolved Oxygen by Probe	All	NDPs: 0 Tests: 6							X							
EPH CWG (Aliphatic) Aqueous GC (W)	All	NDPs: 0 Tests: 6								X						
EPH CWG (Aromatic) Aqueous GC (W)	All	NDPs: 0 Tests: 6								X						
Fluoride	All	NDPs: 0 Tests: 6							X							
GRO by GC-FID (W)	All	NDPs: 0 Tests: 6				X									X	
Hexavalent Chromium (w)	All	NDPs: 0 Tests: 6							X							
Mercury Dissolved	All	NDPs: 0 Tests: 6										X				

Results Legend

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)					23889110									23889127
Customer Sample Reference					ML-N									R3-C
AGS Reference														
Depth (m)					0.00 - 0.00									0.00 - 0.00
Container			NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	HNO3 Unfiltered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type			SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Mercury Unfiltered	All	NDPs: 0 Tests: 6									X			
PAH in waters by GC-MS (diss.filt)	All	NDPs: 0 Tests: 6				X								
PAH Spec MS - Aqueous (W)	All	NDPs: 0 Tests: 6						X						
pH Value	All	NDPs: 0 Tests: 6					X							
Phenols by HPLC (W)	All	NDPs: 0 Tests: 6							X					
Phosphate by Kone (w)	All	NDPs: 0 Tests: 6					X							
Redox Potential	All	NDPs: 0 Tests: 6				X								
Sulphide	All	NDPs: 0 Tests: 6			X									X
Sulphur Dissolved by ICP-OES	All	NDPs: 0 Tests: 6					X							
Suspended Solids	All	NDPs: 0 Tests: 6					X							
SVOC MS (W) - Aqueous	All	NDPs: 0 Tests: 6				X								
Total Dissolved Solids	All	NDPs: 0 Tests: 6					X							
Total Metals by ICP-MS	All	NDPs: 0 Tests: 6									X			
Total Organic Carbon*	All	NDPs: 0 Tests: 6				X								
TPH CWG (W)	All	NDPs: 0 Tests: 6				X								

Validated

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

Results Legend

X **Test**

N **No Determination Possible**

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

Lab Sample No(s)			2389110											2389127
Customer Sample Reference			ML-N											R3-C
AGS Reference														
Depth (m)			0.00 - 0.00											0.00 - 0.00
Container			NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)	0.5l glass bottle (ALE227)	1lplastic (ALE221)	250ml Amber Gl. PTFE/PE (ALE219)	H2SO4 (ALE244)	HNO3 Filtered (ALE204)	HNO3 Unfiltered (ALE204)	NaOH (ALE245)	Vial (ALE297)	ZnAc (ALE246)
Sample Type			SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Turbidity in waters	All	NDPs: 0 Tests: 6					X							
VOC MS (W)	All	NDPs: 0 Tests: 6		X									X	

Validated

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	D5-C	D2-S	EWD-E	KW-C	ML-N	R3-C
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021
			SDG Ref	210312-116	210312-116	210312-116	210312-116	210312-116	210312-116
			Lab Sample No.(s)	23889077	23889178	23889145	23889158	23889110	23889127
			AGS Reference						
Total Organic Carbon, as C*	<0.7 mg/l	SUB		5.9	5.9	6.1	5.8	5.3	4.8
Suspended solids, Total	<2 mg/l	TM022		19 #	10.5 #	28 #	16.5 #	16.5 #	30 #
BOD, unfiltered	<1 mg/l	TM045		1.93 #	<1 #	<1 #	2.67 #	<1 #	<1 #
Oxygen, dissolved	<0.3 mg/l	TM046		9.79	10.6	9.41	9.77	10.4	10.7
Carbon, Organic (diss.filt)	<3 mg/l	TM090		6.04	5.24	7.37	6.71	6.45	5.67
Ammoniacal Nitrogen as NH4	<0.3 mg/l	TM099		1 #	<0.3 #	3.07 #	0.417 #	1.4 #	<0.3 #
Sulphide	<0.01 mg/l	TM101		0.0132	0.0127	0.0349	<0.01	<0.01	0.0132
Fluoride	<0.5 mg/l	TM104		0.874	0.532	1.39	0.751	0.645	<0.5
COD, unfiltered	<7 mg/l	TM107		34.9 #	15.4 #	32.1 #	19.9 #	28.8 #	24.2 #
Redox potential	mV	TM110		161	154	175	153	157	154
Conductivity @ 20 deg.C (diss.filt)	<0.02 mS/cm	TM120		0.644	0.568	0.585	0.54	0.436	0.665
Dissolved solids, Total (meter)	<5 mg/l	TM123		498 #	425 #	450 #	406 #	343 #	497 #
Antimony (diss.filt)	<1 µg/l	TM152		1.85 #	<1 #	<1 #	<1 #	<1 #	<1 #
Antimony (tot.unfilt)	<4 µg/l	TM152		<4 #	<4 #	<4 #	<4 2 #	<4 2 #	<4 #
Arsenic (diss.filt)	<0.5 µg/l	TM152		5.37 #	1.59 #	7.42 #	2.06 #	1.95 #	1.43 #
Arsenic (tot.unfilt)	<2 µg/l	TM152		2.6 #	<2 #	7.82 #	<2 2 #	2.22 2 #	2.17 #
Barium (diss.filt)	<0.2 µg/l	TM152		51 #	42.2 #	34.3 #	33.1 #	25 #	44.8 #
Barium (tot.unfilt)	<0.5 µg/l	TM152		66.7 #	50.1 #	49.5 #	38.4 2 #	32.4 2 #	59.7 #
Beryllium (diss.filt)	<0.1 µg/l	TM152		<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #	<0.1 #
Beryllium (tot.unfilt)	<1 µg/l	TM152		<1 #	<1 #	<1 #	<1 2 #	<1 2 #	<1 #
Boron (diss.filt)	<10 µg/l	TM152		117 #	110 #	160 #	128 #	101 #	90.3 #
Boron (tot.unfilt)	<20 µg/l	TM152		124 #	121 #	170 #	145 2 #	111 2 #	101 #
Cadmium (diss.filt)	<0.08 µg/l	TM152		<0.08 #	<0.08 #	<0.08 #	<0.08 #	<0.08 #	<0.08 #
Cadmium (tot.unfilt)	<0.5 µg/l	TM152		<0.5 #	<0.5 #	<0.5 #	<0.5 2 #	<0.5 2 #	<0.5 #
Chromium (tot.unfilt)	<3 µg/l	TM152		3.3 #	<3 #	<3 #	<3 2 #	<3 2 #	<3 #
Chromium (diss.filt)	<1 µg/l	TM152		2.12 #	<1 #	<1 #	<1 #	<1 #	<1 #
Copper (tot.unfilt)	<1 µg/l	TM152		5.42 #	2.86 #	4.18 #	2.41 2 #	1.89 2 #	4.24 #
Lead (tot.unfilt)	<1 µg/l	TM152		5.4 #	1.62 #				
Copper (diss.filt)	<0.3 µg/l	TM152		3.44 #	2.36 #	1.64 #	1.95 #	1.06 #	2.4 #
Manganese (tot.unfilt)	<1 µg/l	TM152		79.6 #	35.9 #	143 #	30 2 #	16.7 2 #	181 #
Lead (diss.filt)	<0.2 µg/l	TM152		0.311 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #	<0.2 #
Nickel (tot.unfilt)	<1 µg/l	TM152		2.13 #	1.53 #	3.71 #	1.86 2 #	2.89 2 #	2.37 #
Manganese (diss.filt)	<3 µg/l	TM152		14 #	7.68 #	40.5 #	46.6 #	10 #	93 #

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	D5-C	D2-S	EWD-E	KW-C	ML-N	R3-C
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021
			SDG Ref	210312-116	210312-116	210312-116	210312-116	210312-116	210312-116
			Lab Sample No.(s)	23889077	23889178	23889145	23889158	23889110	23889127
			AGS Reference						
Phosphorus (tot.unfilt)	<20 µg/l	TM152		36.3 #	60.9 #	85 #	34.6 2 #	26.9 2 #	97 #
Selenium (tot.unfilt)	<1 µg/l	TM152		<1 #	<1 #	1.84 #	<1 2 #	<1 2 #	<1 #
Nickel (diss.filt)	<0.4 µg/l	TM152		1.89 #	1.19 #	2.15 #	1.84 #	2.89 #	1.27 #
Phosphorus (diss.filt)	<10 µg/l	TM152		13.2 #	34 #	32 #	<10 #	<10 #	29.5 #
Selenium (diss.filt)	<1 µg/l	TM152		1.57 #	<1 #	2.11 #	1.02 #	1.23 #	<1 #
Vanadium (tot.unfilt)	<5 µg/l	TM152		24.4 #	11.4 #	31 #	9.32 2 #	9.58 2 #	7.98 #
Zinc (tot.unfilt)	<5 µg/l	TM152		23.6 #	10.2 #	33.7 #	<5 2 #	<5 2 #	25.4 #
Vanadium (diss.filt)	<1 µg/l	TM152		22.9 #	9.5 #	31.2 #	7.75 #	8.78 #	4.14 #
Zinc (diss.filt)	<1 µg/l	TM152		4.2 #	2.3 #	1.4 #	1.4 #	<1 #	2.25 #
Lead (tot.unfilt)	<0.001 mg/l	TM152				0.0121 #	<0.001 2 #	<0.001 2 #	0.00697 #
Magnesium (Dis.Filt)	<0.036 mg/l	TM152		4.75 #	10.7 #	3.85 #	11.3 #	8.73 #	10.1 #
Calcium (Dis.Filt)	<0.2 mg/l	TM152		65.9 #	67.6 #	85.6 #	64.9 #	40.4 #	82.2 #
Iron (Dis.Filt)	<0.019 mg/l	TM152		0.0671 #	<0.019 #	0.082 #	0.0223 #	<0.019 #	<0.019 #
Hardness, Total as CaCO3	<0.65 mg/l	TM152		183	213	233	232	150	247
Magnesium (Tot. Unfilt.)	<0.05 mg/l	TM152		5.41 #	11.7 #	4.33 #	12.4 2 #	9.69 2 #	11.9 #
Calcium (Tot. Unfilt.)	<0.057 mg/l	TM152		72.1 #	70.3 #	90.8 #	70.6 2 #	50.5 2 #	88.2 #
Iron (Tot. Unfilt.)	<0.024 mg/l	TM152		0.574 #	0.359 #	1.41 #	0.149 2 #	0.534 2 #	1.58 #
Naphthalene (diss.filt)	<0.01 µg/l	TM178		<0.01 ♦	<0.01 ♦	0.0164 ♦	<0.01 ♦	<0.01 ♦	<0.01 ♦
Acenaphthene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦
Acenaphthylene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	0.00776 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦
Fluoranthene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	0.00591 ♦
Anthracene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦
Phenanthrene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	0.00899 ♦	<0.005 ♦	0.0103 ♦	0.00658 ♦
Fluorene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦
Chrysene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦
Pyrene (diss.filt)	<0.005 µg/l	TM178		0.0171 ♦	0.00594 ♦	0.00962 ♦	<0.005 ♦	0.00868 ♦	0.00548 ♦
Benzo(a)anthracene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦
Benzo(b)fluoranthene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	0.00544 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦
Benzo(k)fluoranthene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦
Benzo(a)pyrene (diss.filt)	<0.002 µg/l	TM178		<0.002 ♦	<0.002 ♦	0.00532 ♦	<0.002 ♦	<0.002 ♦	<0.002 ♦
Dibenzo(a,h)anthracene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦
Benzo(g,h,i)perylene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	0.0056 ♦
Indeno(1,2,3-cd)pyrene (diss.filt)	<0.005 µg/l	TM178		<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦	<0.005 ♦

Validated

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	D5-C	D2-S	EWD-E	KW-C	ML-N	R3-C
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021
			SDG Ref	210312-116	210312-116	210312-116	210312-116	210312-116	210312-116
			Lab Sample No.(s)	23889077	23889178	23889145	23889158	23889110	23889127
			AGS Reference						
PAH Sum of EPA 16 detected (Diss filt)	<0.082 µg/l	TM178		<0.082 ♦	<0.082 ♦	<0.082 ♦	<0.082 ♦	<0.082 ♦	<0.082 ♦
Mercury (diss.filt)	<0.01 µg/l	TM183		<0.01	<0.01	0.0145	<0.01	<0.01	<0.01
Mercury (tot.unfilt)	<0.02 µg/l	TM183		<0.02	<0.02	0.0961	<0.02 2	<0.02 2	<0.02
Phosphate (Ortho as PO4)	<0.05 mg/l	TM184		<0.05 #	0.054 #	0.052 #	<0.05 #	<0.05 #	0.055 #
Sulphate	<2 mg/l	TM184		141 #	92.9 #	221 #	132 #	132 #	82.7 #
Chloride	<2 mg/l	TM184		91.3 #	42 #	18 #	36.6 #	29.7 #	69 #
Turbidity	<0.1 ntu	TM195		24.2 ♦ #	9.6 ♦ #	53.1 ♦ #	9.38 ♦ #	13.4 ♦ #	40.6 ♦ #
Cyanide, Total	<0.05 mg/l	TM227		<0.05	<0.05	0.19	<0.05	<0.05	<0.05
Cyanide, Free	<0.05 mg/l	TM227		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Cyanide, Complex	<0.05 mg/l	TM227		<0.05	<0.05	0.15	<0.05	<0.05	<0.05
Sulphur Dissolved	<1 mg/l	TM228		41.9	25.2	63.3	38.1	37.5	22.5
Chromium, Hexavalent	<0.03 mg/l	TM241		<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
pH	<1 pH Units	TM256		8.61 #	8.09 #	9.28 #	8.24 #	9.23 #	8.11 #
Phenol	<0.002 mg/l	TM259		<0.002	<0.002	<0.002	<0.002	0.01	<0.002
Cresols	<0.006 mg/l	TM259		<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Xylenols	<0.008 mg/l	TM259		<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
Phenols, Total Detected monohydric	<0.016 mg/l	TM259		<0.016	<0.016	<0.016	<0.016	<0.016	<0.016

Validated

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

PAH Spec MS - Aqueous (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	D5-C	D2-S	EWD-E	KW-C	ML-N	R3-C
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021
			SDG Ref	210312-116	210312-116	210312-116	210312-116	210312-116	210312-116
			Lab Sample No.(s)	23889077	23889178	23889145	23889158	23889110	23889127
			AGS Reference						
Naphthalene (aq)	<0.01 µg/l	TM178		0.0201 ♦ #	0.0118 ♦ #	0.277 ♦ #	<0.01 ♦ #	<0.01 ♦ #	0.043 ♦ #
Acenaphthene (aq)	<0.005 µg/l	TM178		<0.005 ♦ #	<0.005 ♦ #	0.0119 ♦ #	<0.005 ♦ #	<0.005 ♦ #	0.00535 ♦ #
Acenaphthylene (aq)	<0.005 µg/l	TM178		<0.005 ♦ #	<0.005 ♦ #	0.0802 ♦ #	<0.005 ♦ #	<0.005 ♦ #	0.0167 ♦ #
Fluoranthene (aq)	<0.005 µg/l	TM178		0.0406 ♦ #	0.0294 ♦ #	0.311 ♦ #	0.00994 ♦ #	0.0106 ♦ #	0.127 ♦ #
Anthracene (aq)	<0.005 µg/l	TM178		0.00996 ♦ #	0.00735 ♦ #	0.0719 ♦ #	<0.005 ♦ #	<0.005 ♦ #	0.0261 ♦ #
Phenanthrene (aq)	<0.005 µg/l	TM178		0.0413 ♦ #	0.0277 ♦ #	0.259 ♦ #	0.0116 ♦ #	0.0162 ♦ #	0.105 ♦ #
Fluorene (aq)	<0.005 µg/l	TM178		0.00636 ♦ #	<0.005 ♦ #	0.0734 ♦ #	<0.005 ♦ #	<0.005 ♦ #	0.0201 ♦ #
Chrysene (aq)	<0.005 µg/l	TM178		0.029 ♦ #	0.0129 ♦ #	0.193 ♦ #	<0.005 ♦ #	<0.005 ♦ #	0.0878 ♦ #
Pyrene (aq)	<0.005 µg/l	TM178		0.054 ♦ #	0.0283 ♦ #	0.233 ♦ #	0.0105 ♦ #	0.0139 ♦ #	0.09 ♦ #
Benzo(a)anthracene (aq)	<0.005 µg/l	TM178		0.0227 ♦ #	0.0131 ♦ #	0.136 ♦ #	<0.005 ♦ #	<0.005 ♦ #	0.0635 ♦ #
Benzo(b)fluoranthene (aq)	<0.005 µg/l	TM178		0.0389 ♦ #	0.0209 ♦ #	0.278 ♦ #	<0.005 ♦ #	<0.005 ♦ #	0.116 ♦ #
Benzo(k)fluoranthene (aq)	<0.005 µg/l	TM178		0.0165 ♦ #	0.00708 ♦ #	0.108 ♦ #	<0.005 ♦ #	<0.005 ♦ #	0.0457 ♦ #
Benzo(a)pyrene (aq)	<0.002 µg/l	TM178		0.0174 ♦ #	0.00774 ♦ #	0.148 ♦ #	<0.002 ♦ #	<0.002 ♦ #	0.0491 ♦ #
Dibenzo(a,h)anthracene (aq)	<0.005 µg/l	TM178		0.00853 ♦ #	<0.005 ♦ #	0.0297 ♦ #	<0.005 ♦ #	<0.005 ♦ #	<0.005 ♦ #
Benzo(g,h,i)perylene (aq)	<0.005 µg/l	TM178		0.0278 ♦ #	<0.005 ♦ #	0.155 ♦ #	<0.005 ♦ #	<0.005 ♦ #	0.0603 ♦ #
Indeno(1,2,3-cd)pyrene (aq)	<0.005 µg/l	TM178		0.0244 ♦ #	0.0124 ♦ #	0.135 ♦ #	<0.005 ♦ #	<0.005 ♦ #	0.0573 ♦ #
PAH, Total Detected USEPA 16 (aq)	<0.082 µg/l	TM178		0.358 ♦ #	0.179 ♦ #	2.5 ♦ #	<0.082 ♦ #	<0.082 ♦ #	0.913 ♦ #

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	D5-C	D2-S	EWD-E	KW-C	ML-N	R3-C
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021
			SDG Ref	210312-116	210312-116	210312-116	210312-116	210312-116	210312-116
			Lab Sample No.(s)	23889077	23889178	23889145	23889158	23889110	23889127
			AGS Reference						
1,2,4-Trichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,5-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4,6-Trichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dichlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dimethylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,4-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,6-Dinitrotoluene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chloronaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylnaphthalene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Nitrophenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
3-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Bromophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloro-3-methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chloroaniline (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
4-Chlorophenylphenylether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Methylphenol (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitroaniline (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Nitrophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Azobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethyl)ether (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Chloroethoxy)methane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
bis(2-Ethylhexyl) phthalate (aq)	<2 µg/l	TM176		<2 #	<2 #	<2 #	<2 #	<2 #	<2 #
Butylbenzyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzo(k)fluoranthene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbazole (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibenzofuran (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dibutyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

SVOC MS (W) - Aqueous

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	D5-C	D2-S	EWD-E	KW-C	ML-N	R3-C
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021
			SDG Ref	210312-116	210312-116	210312-116	210312-116	210312-116	210312-116
			Lab Sample No.(s)	23889077	23889178	23889145	23889158	23889110	23889127
			AGS Reference						
Diethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dimethyl phthalate (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Dioctyl phthalate (aq)	<5 µg/l	TM176		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
Hexachlorobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Pentachlorophenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Phenol (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
n-Nitroso-n-dipropylamine (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachloroethane (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Nitrobenzene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isophorone (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorocyclopentadiene (aq)	<1 µg/l	TM176		<1	<1	<1	<1	<1	<1
Indeno(1,2,3-cd)pyrene (aq)	<1 µg/l	TM176		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
SVOC TIC (aq)		TM176		Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
Total SVOC TIC	<10 µg/l	TM176		15.1	<10	<10	<10	<10	<10
Unknown	µg/l	TM176		15.1					

Validated

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

TPH CWG (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	D5-C	D2-S	EWD-E	KW-C	ML-N	R3-C
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021
			SDG Ref	210312-116	210312-116	210312-116	210312-116	210312-116	210312-116
			Lab Sample No.(s)	23889077	23889178	23889145	23889158	23889110	23889127
			AGS Reference						
GRO Surrogate % recovery**	%	TM245		100	98	99	91	105	99
GRO >C5-C12	<50 µg/l	TM245		<50 #	<50 #	<50 #	<50 #	<50 #	<50 #
Methyl tertiary butyl ether (MTBE)	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Benzene	<7 µg/l	TM245		<7 #	<7 #	<7 #	<7 #	<7 #	<7 #
Toluene	<4 µg/l	TM245		<4 #	<4 #	<4 #	<4 #	<4 #	<4 #
Ethylbenzene	<5 µg/l	TM245		<5 #	<5 #	<5 #	<5 #	<5 #	<5 #
m,p-Xylene	<8 µg/l	TM245		<8 #	<8 #	<8 #	<8 #	<8 #	<8 #
o-Xylene	<3 µg/l	TM245		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Sum of detected Xylenes	<11 µg/l	TM245		<11	<11	<11	<11	<11	<11
Sum of detected BTEX	<28 µg/l	TM245		<28	<28	<28	<28	<28	<28
Aliphatics >C5-C6	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C6-C8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C8-C10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C10-C12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aliphatics >C12-C16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aliphatics >C16-C21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aliphatics >C21-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Total Aliphatics >C12-C35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aromatics >EC5-EC7	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC7-EC8	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC8-EC10	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC10-EC12	<10 µg/l	TM245		<10	<10	<10	<10	<10	<10
Aromatics >EC12-EC16 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aromatics >EC16-EC21 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aromatics >EC21-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Total Aromatics >EC12-EC35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Total Aliphatics & Aromatics >C5-35 (aq)	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10
Aliphatics >C16-C35 Aqueous	<10 µg/l	TM174		<10	<10	<10	<10	<10	<10

Validated

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+$@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	D5-C	D2-S	EWD-E	KW-C	ML-N	R3-C
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021
			SDG Ref	210312-116	210312-116	210312-116	210312-116	210312-116	210312-116
			Lab Sample No.(s)	23889077	23889178	23889145	23889158	23889110	23889127
			AGS Reference						
Dibromofluoromethane**	%	TM208		108	111	111	110	110	109
Toluene-d8**	%	TM208		98.1	102	98.2	102	99.3	101
4-Bromofluorobenzene**	%	TM208		96.1	96.2	96.2	95.8	97.7	97
Dichlorodifluoromethane	<1 µg/l	TM208		<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #	<1 ♦ #
Chloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Vinyl chloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichlorofluoromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbon disulphide	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dichloromethane	<3 µg/l	TM208		<3 #	<3 #	<3 #	<3 #	<3 #	<3 #
Methyl tertiary butyl ether (MTBE)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,2-Dichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2,2-Dichloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
Bromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chloroform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Carbontetrachloride	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Benzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Trichloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromomethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromodichloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
cis-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Toluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
trans-1,3-Dichloropropene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2-Trichloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

VOC MS (W)

Results Legend

#	ISO17025 accredited.
M	mCERTS accredited.
aq	Aqueous / settled sample.
diss.filt	Dissolved / filtered sample.
tot.unfilt	Total / unfiltered sample.
*	Subcontracted - refer to subcontractor report for accreditation status.
**	% recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery
(F)	Trigger breach confirmed
1-4+§@	Sample deviation (see appendix)

Component	LOD/Units	Method	Customer Sample Ref.	D5-C	D2-S	EWD-E	KW-C	ML-N	R3-C
			Depth (m)	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
			Sample Type	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)	Surface Water (SW)
			Date Sampled	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021	11/03/2021
			Sample Time	00:00	00:00	00:00	00:00	00:00	00:00
			Date Received	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021	12/03/2021
			SDG Ref	210312-116	210312-116	210312-116	210312-116	210312-116	210312-116
			Lab Sample No.(s)	23889077	23889178	23889145	23889158	23889110	23889127
			AGS Reference						
Tetrachloroethene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Dibromochloromethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromoethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Chlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,1,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Ethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
m,p-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
o-Xylene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Styrene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromoform	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Isopropylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,1,2,2-Tetrachloroethane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichloropropane	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Bromobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Propylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
2-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-Chlorotoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,4-Trimethylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
sec-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
4-iso-Propyltoluene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,4-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
n-Butylbenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2-Dibromo-3-chloropropane	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1
1,2,4-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Hexachlorobutadiene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
tert-Amyl methyl ether (TAME)	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
Naphthalene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,2,3-Trichlorobenzene	<1 µg/l	TM208		<1 #	<1 #	<1 #	<1 #	<1 #	<1 #
1,3,5-Trichlorobenzene	<1 µg/l	TM208		<1	<1	<1	<1	<1	<1

Table of Results - Appendix

Method No	Reference	Description
SUB		Subcontracted Test
TM022	Method 2540D, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part120 1981;BS EN 872	Determination of total suspended solids in waters
TM045	MEWAM BOD5 2nd Ed.HMSO 1988 / Method 5210B, AWWA/APHA, 20th Ed., 1999; SCA Blue Book 130	Determination of BOD5 (ATU) Filtered by Oxygen Meter on liquids
TM046	Method 4500G, AWWA/APHA, 20th Ed., 1999	Measurement of Dissolved Oxygen by Oxygen Meter
TM090	Method 5310, AWWA/APHA, 20th Ed., 1999 / Modified: US EPA Method 415.1 & 9060	Determination of Total Organic Carbon/Total Inorganic Carbon in Water and Waste Water
TM099	BS 2690: Part 7:1968 / BS 6068: Part2.11:1984	Determination of Ammonium in Water Samples using the Kone Analyser
TM101	Method 4500B & C, AWWA/APHA, 20th Ed., 1999	Determination of Sulphide in soil and water samples using the Kone Analyser
TM104	Method 4500F, AWWA/APHA, 20th Ed., 1999	Determination of Fluoride using the Kone Analyser
TM107	ISO 6060-1989	Determination of Chemical Oxygen Demand using COD Dr Lange Kit
TM110	BS 1377: Part 3 1990	Redox Potential
TM120	Method 2510B, AWWA/APHA, 20th Ed., 1999 / BS 2690: Part 9:1970	Determination of Electrical Conductivity using a Conductivity Meter
TM123	BS 2690: Part 121:1981	The Determination of Total Dissolved Solids in Water
TM152	Method 3125B, AWWA/APHA, 20th Ed., 1999	Analysis of Aqueous Samples by ICP-MS
TM174	Analysis of Petroleum Hydrocarbons in Environmental Media – Total Petroleum Hydrocarbon Criteria	Determination of Speciated Extractable Petroleum Hydrocarbons in Waters by GC-FID
TM176	EPA 8270D Semi-Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	Determination of SVOCs in Water by GCMS
TM178	Modified: US EPA Method 8100	Determination of Polynuclear Aromatic Hydrocarbons (PAH) by GC-MS in Waters
TM183	BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3	Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry
TM184	EPA Methods 325.1 & 325.2,	The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers
TM195	Colour and Turbidity of water. Methods for the Examination of Waters and Associated Materials. HMSO, 1981, ISBN 0 11 751955 3.	Determination of Turbidity in Waters & Associated Matrices
TM208	Modified: US EPA Method 8260b & 624	Determination of Volatile Organic Compounds by Headspace / GC-MS in Waters
TM227	Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500.	Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate
TM228	US EPA Method 6010B	Determination of Major Cations in Water by iCap 6500 Duo ICP-OES
TM241	Methods for the Examination of Waters and Associated Materials; Chromium in Raw and Potable Waters and Sewage Effluents 1980.	The Determination of Hexavalent Chromium in Waters and Leachates using the Kone Analyser
TM245	By GC-FID	Determination of GRO by Headspace in waters
TM256	The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4.	Determination of pH in Water and Leachate using the GLpH pH Meter
TM259	by HPLC	Determination of Phenols in Waters and Leachates by HPLC

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Life Sciences Ltd Hawarden (Method codes TM) or ALS Life Sciences Ltd Aberdeen (Method codes S).

CERTIFICATE OF ANALYSIS

SDG:	210312-116	**Client Reference:**		**Report Number:**	592300
Location:	Llanwern	**Order Number:**	108282	**Superseded Report:**	590911

Test Completion Dates

Lab Sample No(s)	23889077	23889178	23889145	23889158	23889110	23889127
Customer Sample Ref.	D5-C	D2-S	EWD-E	KW-C	ML-N	R3-C
AGS Ref.						
Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00
Type	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
Ammoniacal Nitrogen	23-Mar-2021		19-Mar-2021	23-Mar-2021	19-Mar-2021	23-Mar-2021
Anions by Kone (w)	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021
BOD True Total	18-Mar-2021	18-Mar-2021	18-Mar-2021	18-Mar-2021	18-Mar-2021	18-Mar-2021
COD Unfiltered	22-Mar-2021	22-Mar-2021	22-Mar-2021	22-Mar-2021	22-Mar-2021	22-Mar-2021
Conductivity (at 20 deg.C)	24-Mar-2021	24-Mar-2021	24-Mar-2021	24-Mar-2021	24-Mar-2021	24-Mar-2021
Cyanide Comp/Free/Total/Thiocyanate	16-Mar-2021		17-Mar-2021	16-Mar-2021	16-Mar-2021	17-Mar-2021
Dissolved Metals by ICP-MS	23-Mar-2021	18-Mar-2021	23-Mar-2021	23-Mar-2021	23-Mar-2021	18-Mar-2021
Dissolved Organic/Inorganic Carbon	25-Mar-2021	24-Mar-2021	25-Mar-2021	25-Mar-2021	25-Mar-2021	25-Mar-2021
Dissolved Oxygen by Probe	13-Mar-2021	13-Mar-2021	13-Mar-2021	13-Mar-2021	13-Mar-2021	13-Mar-2021
EPH CWG (Aliphatic) Aqueous GC (W)	27-Mar-2021	27-Mar-2021	27-Mar-2021	27-Mar-2021	27-Mar-2021	27-Mar-2021
EPH CWG (Aromatic) Aqueous GC (W)	27-Mar-2021	27-Mar-2021	27-Mar-2021	27-Mar-2021	27-Mar-2021	27-Mar-2021
Fluoride	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021
GRO by GC-FID (W)	23-Mar-2021	23-Mar-2021	23-Mar-2021	23-Mar-2021	23-Mar-2021	23-Mar-2021
Hexavalent Chromium (w)	16-Mar-2021	16-Mar-2021	16-Mar-2021	16-Mar-2021	16-Mar-2021	16-Mar-2021
Mercury Dissolved	18-Mar-2021		18-Mar-2021	18-Mar-2021	18-Mar-2021	18-Mar-2021
Mercury Unfiltered	17-Mar-2021	17-Mar-2021	17-Mar-2021	17-Mar-2021	17-Mar-2021	17-Mar-2021
PAH in waters by GC-MS (diss.filt)	24-Mar-2021	24-Mar-2021	24-Mar-2021	24-Mar-2021	24-Mar-2021	24-Mar-2021
PAH Spec MS - Aqueous (W)	25-Mar-2021	25-Mar-2021	25-Mar-2021	25-Mar-2021	25-Mar-2021	25-Mar-2021
pH Value	18-Mar-2021	18-Mar-2021	18-Mar-2021	18-Mar-2021	18-Mar-2021	18-Mar-2021
Phenols by HPLC (W)	18-Mar-2021		18-Mar-2021	16-Mar-2021	16-Mar-2021	15-Mar-2021
Phosphate by Kone (w)	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021
Redox Potential	16-Mar-2021	16-Mar-2021	16-Mar-2021	16-Mar-2021	16-Mar-2021	16-Mar-2021
Sulphide	16-Mar-2021		16-Mar-2021	16-Mar-2021	16-Mar-2021	16-Mar-2021
Sulphur Dissolved by ICP-OES	17-Mar-2021	19-Mar-2021	19-Mar-2021	19-Mar-2021	19-Mar-2021	19-Mar-2021
Suspended Solids	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021
SVOC MS (W) - Aqueous	19-Mar-2021	18-Mar-2021	18-Mar-2021	19-Mar-2021	18-Mar-2021	19-Mar-2021
Total Dissolved Solids	18-Mar-2021	18-Mar-2021	18-Mar-2021	18-Mar-2021	18-Mar-2021	18-Mar-2021
Total Metals by ICP-MS	17-Mar-2021	17-Mar-2021	17-Mar-2021	17-Mar-2021	17-Mar-2021	17-Mar-2021
Total Organic Carbon*	17-Mar-2021	17-Mar-2021	17-Mar-2021	17-Mar-2021	17-Mar-2021	17-Mar-2021
TPH CWG (W)	27-Mar-2021	27-Mar-2021	27-Mar-2021	27-Mar-2021	27-Mar-2021	27-Mar-2021
Turbidity in waters	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021	15-Mar-2021
VOC MS (W)	23-Mar-2021	23-Mar-2021	23-Mar-2021	23-Mar-2021	23-Mar-2021	23-Mar-2021

ALS Environmental Ltd
Torrington Avenue
Coventry
CV4 9GU

T: +44 (0)24 7642 1213
F: +44 (0)24 7685 6575
www.alsenvironmental.co.uk

Subcon Results
ALS Life Sciences Limited
Torrington Avenue
Tile Hill CV4 9GU

17 March 2021

Test Report: COV/2105073/2021

Dear Subcon Results

Analysis of your sample(s) received on 13 March 2021 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using ALS Environmental Ltd and we look forward to receiving your next samples.

Yours Sincerely,

Signed:

Name: A. Zunzunegui

Title: Dept Organic Technical Manager

UKAS TESTING 1314

bsi ISO 14001 Environmental Management CERTIFIED ISO 45001 Occupational Health and Safety Management CERTIFIED
EMS 675527 OHS 542058

mCERTS THE ENVIRONMENT AGENCY'S MONITORING CERTIFICATION SCHEME

Report Summary

ANALYSED BY

Hawarden Subcon Results
ALS Life Sciences Limited
Torrington Avenue
Tile Hill
CV4 9GU

Date of Issue: **17 March 2021**

Report Number: **COV/2105073/2021** Issue **1**

This issue replaces all previous issues

Job Description: 2020 Analysis

Job Location: 210312-116

Number of Samples included in this report **6**

Job Received: **13 March 2021**

Number of Test Results included in this report **6**

Analysis Commenced: **15 March 2021**

Signed:

Name: **A. Zunzunegui** Date: **17 March 2021**

Title: **Dept Organic Technical Manager**

ALS Environmental Ltd was not responsible for sampling unless otherwise stated.

Information on the methods of analysis and performance characteristics are available on request.
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested and where relevant sampled.
Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.
This test report is not a statement of conformity to any specification or standard.

Certificate of Analysis

ANALYSED BY

Report Number:	**COV/2105073/2021**	Issue	**1**
Laboratory Number:	**20234699**	Sample	**1** of **6**
Sample Source:	**ALS Life Sciences Limited**		
Sample Point Description:			
Sample Description:	**23890662 D2-S**		
Sample Matrix:	**Surface Water**		
Sample Date/Time:	**11 March 2021**		
Sample Received:	**13 March 2021**		
Analysis Complete:	**16 March 2021**		
SDG:	**210312-116**		

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC as C	5.9	mg/l	15/03/2021	N Cov	WAS005

Analyst Comments for 20234699: No Analyst Comment

This issue replaces all previous issues
Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.
Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.
I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed: 

Name: **A. Zunzunegui** Date: **17 March 2021**

Title: **Dept Organic Technical Manager**

Certificate of Analysis

ANALYSED BY

Report Number:	**COV/2105073/2021**	Issue	**1**
Laboratory Number:	**20234700**	Sample	**2** of **6**
Sample Source:	**ALS Life Sciences Limited**		
Sample Point Description:			
Sample Description:	**23890603 D5-C**		
Sample Matrix:	**Surface Water**		
Sample Date/Time:	**11 March 2021**		
Sample Received:	**13 March 2021**		
Analysis Complete:	**16 March 2021**		
SDG:	**210312-116**		

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC as C	5.9	mg/l	15/03/2021	N Cov	WAS005

Analyst Comments for 20234700: No Analyst Comment

This issue replaces all previous issues
Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.
Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.
I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed: 

Name: **A. Zunzunegui** Date: **17 March 2021**

Title: **Dept Organic Technical Manager**

Certificate of Analysis

ANALYSED BY

Report Number:	**COV/2105073/2021**	Issue	**1**
Laboratory Number:	**20234701**	Sample	**3** of **6**
Sample Source:	**ALS Life Sciences Limited**		
Sample Point Description:			
Sample Description:	**23890602 EWD-E**		
Sample Matrix:	**Surface Water**		
Sample Date/Time:	**11 March 2021**		
Sample Received:	**13 March 2021**		
Analysis Complete:	**16 March 2021**		
SDG:	**210312-116**		

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC as C	6.1	mg/l	15/03/2021	N Cov	WAS005

Analyst Comments for 20234701: No Analyst Comment

This issue replaces all previous issues
Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.
Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.
I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed: 

Name: **A. Zunzunegui** Date: **17 March 2021**

Title: **Dept Organic Technical Manager**

Certificate of Analysis

ANALYSED BY

Report Number:	**COV/2105073/2021**	Issue	**1**
Laboratory Number:	**20234702**	Sample	**4** of **6**
Sample Source:	**ALS Life Sciences Limited**		
Sample Point Description:			
Sample Description:	**23891169 KW-C**		
Sample Matrix:	**Surface Water**		
Sample Date/Time:	**11 March 2021**		
Sample Received:	**13 March 2021**		
Analysis Complete:	**16 March 2021**		
SDG:	**210312-116**		

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC as C	5.8	mg/l	15/03/2021	N Cov	WAS005

Analyst Comments for 20234702: No Analyst Comment

This issue replaces all previous issues
Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.
Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.
I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed: 

Name: **A. Zunzunegui** Date: **17 March 2021**

Title: **Dept Organic Technical Manager**

Certificate of Analysis

ANALYSED BY

Report Number:	**COV/2105073/2021**	Issue	**1**
Laboratory Number:	**20234703**	Sample	**5** of **6**
Sample Source:	**ALS Life Sciences Limited**		
Sample Point Description:			
Sample Description:	**23891052 ML**		
Sample Matrix:	**Surface Water**		
Sample Date/Time:	**11 March 2021**		
Sample Received:	**13 March 2021**		
Analysis Complete:	**16 March 2021**		
SDG:	**210312-116**		

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC as C	5.3	mg/l	15/03/2021	N Cov	WAS005

Analyst Comments for 20234703: No Analyst Comment

This issue replaces all previous issues
Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.
Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.
I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed: 

Name: **A. Zunzunegui** Date: **17 March 2021**

Title: **Dept Organic Technical Manager**

Certificate of Analysis

ANALYSED BY

Report Number:	**COV/2105073/2021**	Issue	**1**
Laboratory Number:	**20234704**	Sample	**6** of **6**
Sample Source:	**ALS Life Sciences Limited**		
Sample Point Description:			
Sample Description:	**23890657 R3-C**		
Sample Matrix:	**Surface Water**		
Sample Date/Time:	**11 March 2021**		
Sample Received:	**13 March 2021**		
Analysis Complete:	**16 March 2021**		
SDG:	**210312-116**		

Test Description	Result	Units	Analysis Date	Accreditation	Method
TOC as C	4.8	mg/l	15/03/2021	N Cov	WAS005

Analyst Comments for 20234704: No Analyst Comment

This issue replaces all previous issues
Accreditation Codes: Y = UKAS / ISO17025 Accredited, N = Not UKAS / ISO17025 Accredited, M = MCERTS.
Analysed at: CHE = Chester(CH5 3US), COV = Coventry(CV4 9GU), OTT = Otterbourne(SO21 2RU), S = Subcontracted, TRB = Subcontracted to Trowbridge(BA14 0XD), WAK = Wakefield(WF5 9TG), F = Data supplied by customer.
For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered.
I/S=Insufficient sample For soil/sludge samples: AR=As received, DW=Dry weight.

Signed: 

Name: **A. Zunzunegui** Date: **17 March 2021**

Title: **Dept Organic Technical Manager**

ALS Environmental Ltd
Torrington Avenue, Coventry, CV4 9GU
Tel:+44 (0)24 7642 1213 Fax:+44 (0)24 7685 6575

ANALYST COMMENTS FOR REPORT COV/2105073/2021 Issue 1

This issue replaces all previous issues

Date of Issue: **17 March 2021**

Sample No	Analysis Comments
20234699	
20234700	
20234701	
20234702	
20234703	
20234704	

Signed: 

Name: **A. Zunzunegui** Date: **17 March 2021**

Title: **Dept Organic Technical Manager**

DETERMINAND COMMENTS FOR REPORT COV/2105073/2021

ISSUE 1

This issue replaces all previous issues

Date of Issue: 17 March 2021

Sample No	Description	Determinand	Comments

Signed: 

Name: **A. Zunzunegui** Date: **17 March 2021**

Title: **Dept Organic Technical Manager**

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Appendix General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

3. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

4. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

5. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

6. NDP - No determination possible due to insufficient/unsuitable sample.

7. Results relate only to the items tested.

8. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

9. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

10. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

11. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

12. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

13. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

14. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

15. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

16. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

17. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

18. **Sample Deviations**

If a sample is classed as deviated then the associated results may be compromised.

1	**Container with Headspace provided for volatiles analysis**
2	**Incorrect container received**
3	**Deviation from method**
4	**Matrix interference**
♦	**Sample holding time exceeded in laboratory**
@	**Sample holding time exceeded due to late arrival of instructions or samples**
§	**Sampled on date not provided**

19. **Asbestos**

When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

Asbestos Type	Common Name
Chrysotile	White Asbestos
Amosite	Brown Asbestos
Crocidolite	Blue Asbestos
Fibrous Actinolite	-
Fibrous Anthophyllite	-
Fibrous Tremolite	-

Visual Estimation Of Fibre Content

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

Respirable Fibres

Respirable fibres are defined as fibres of <3 µm diameter, longer than 5 µm and with aspect ratios of at least 3:1 that can be inhaled into the lower regions of the lung and are generally acknowledged to be most important predictor of hazard and risk for cancers of the lung.
Standing Committee of Analysts, *The Quantification of Asbestos in Soil (2017).*

Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.

The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.