

M41977 Appendix E  
Former Sunninghill Gas Works  
Selection of Photographs Showing Works Undertaken





22/10/2021 General Works





09/11/2021 General Works







24/11/2021 Piling Works



M41977 Appendix E  
Former Sunninghill Gas Works  
Selection of Photographs Showing Works Undertaken



09 December 2021 On Going Infrastructure Works



14-25<sup>th</sup> January 2022 On Going Infrastructure Works



M41977 Appendix E  
Former Sunninghill Gas Works  
Selection of Photographs Showing Works Undertaken







# Appendix F - JNP Group Monitoring Borehole Records





# Borehole Log

Borehole No.

**BH305B**

Sheet 1 of 1

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493757.00 - 167472.00	Hole Type RO
Location: Bridge Road, Sunningdale		Level: 68.50	Scale 1:50
Client: St William Homes		Dates: 26/04/2022 - 26/04/2022	Logged By CAW

Well

Remarks  
Drilled using rotary open hole techniques with air mist flush. Arisings notably wet below 5.00 m, assumed water strike.





# Borehole Log

Borehole No.

**BH201A**

Sheet 1 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493701.00 - 167569.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 69.65	Scale 1:50
Client: St William Homes		Dates: 17/06/2021 - 17/06/2021	Logged By Driller

Well

Remarks  
100 mm standpipe installed. Response zone 11 m to 15 m. Depths measured from ground level on day of drilling.  
Ground level subsequently raised during groundworks.





# Borehole Log

Borehole No.

**BH201A**

Sheet 2 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493701.00 - 167569.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 69.65	Scale 1:50
Client: St William Homes		Dates: 17/06/2021 - 17/06/2021	Logged By Driller

Well

Remarks  
100 mm standpipe installed. Response zone 11 m to 15 m. Depths measured from ground level on day of drilling.  
Ground level subsequently raised during groundworks.





# Borehole Log

Borehole No.

**BH301**

Sheet 1 of 1

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493705.00 - 167567.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 69.50	Scale 1:50
Client: St William Homes		Dates: 15/06/2021 - 15/06/2021	Logged By Driller

Well

Remarks  
50 mm standpipe installed. Response zone 4 m to 8 m. Depths measured from ground level on day of drilling. Ground level subsequently raised during groundworks.





# Borehole Log

Borehole No.

**BH303**

Sheet 1 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493787.00 - 167582.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 66.80	Scale 1:50
Client: St William Homes		Dates: 07/07/2021 - 07/07/2021	Logged By Driller

Well

Remarks  
100 mm standpipe installed. Response zone 11.5 m to 15.5 m. Depths measured from ground level on day of drilling.  
Ground level subsequently raised during groundworks.





# Borehole Log

Borehole No.

**BH303**

Sheet 2 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493787.00 - 167582.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 66.80	Scale 1:50
Client: St William Homes		Dates: 07/07/2021 - 07/07/2021	Logged By Driller

Well

Remarks  
100 mm standpipe installed. Response zone 11.5 m to 15.5 m. Depths measured from ground level on day of drilling. Ground level subsequently raised during groundworks.







# Borehole Log

Borehole No.

**BH303A**

Sheet 1 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493782.00 - 167577.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 67.20	Scale 1:50
Client: St William Homes		Dates: 17/09/2021 - 17/09/2021	Logged By CAW

Well

Remarks  
50 mm standpipe installed. Response zone 10 m to 15 m.





# Borehole Log

Borehole No.

**BH303A**

Sheet 2 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493782.00 - 167577.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 67.20	Scale 1:50
Client: St William Homes		Dates: 17/09/2021 - 17/09/2021	Logged By CAW

Well

Remarks  
50 mm standpipe installed. Response zone 10 m to 15 m.





# Borehole Log

Borehole No.

**BH304**

Sheet 1 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493741.00 - 167455.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 68.05	Scale 1:50
Client: St William Homes		Dates: 15/06/2021 - 15/06/2021	Logged By Driller

Well

Remarks  
100 mm standpipe installed. Response zone 10 m to 20 m. Depths measured from ground level on day of drilling.  
Ground level subsequently raised during groundworks.





# Borehole Log

Borehole No.

**BH304**

Sheet 2 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493741.00 - 167455.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 68.05	Scale 1:50
Client: St William Homes		Dates: 15/06/2021 - 15/06/2021	Logged By Driller

Well

Remarks  
100 mm standpipe installed. Response zone 10 m to 20 m. Depths measured from ground level on day of drilling.  
Ground level subsequently raised during groundworks.





# Borehole Log

Borehole No.

**BH305**

Sheet 1 of 1

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493744.00 - 167447.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 68.00	Scale 1:50
Client: St William Homes		Dates: 14/06/2021 - 14/06/2021	Logged By Driller

Well

Remarks  
50 mm standpipe installed. Response zone 4 m to 10 m. Depths measured from ground level on day of drilling. Ground level subsequently raised during groundworks.





# Borehole Log

Borehole No.

**BH305A**

Sheet 1 of 1

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493752.00 - 167464.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 69.50	Scale 1:50
Client: St William Homes		Dates: 23/09/2021 - 23/09/2021	Logged By CAW

Well

Remarks  
50 mm standpipe installed. Response zone 3 m to 6 m.





# Borehole Log

Borehole No.

**BH306**

Sheet 1 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493730.00 - 167600.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 67.25	Scale 1:50
Client: St William Homes		Dates: 17/06/2021 - 17/06/2021	Logged By Driller

Well

Remarks  
50 mm standpipe installed. Response zone 8 m to 15 m. Depths measured from ground level on day of drilling. Ground level subsequently raised during groundworks.





# Borehole Log

Borehole No.

**BH306**

Sheet 2 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493730.00 - 167600.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 67.25	Scale 1:50
Client: St William Homes		Dates: 17/06/2021 - 17/06/2021	Logged By Driller

Well

Remarks  
50 mm standpipe installed. Response zone 8 m to 15 m. Depths measured from ground level on day of drilling. Ground level subsequently raised during groundworks.







# Borehole Log

Borehole No.

**BH307**

Sheet 1 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493730.00 - 167603.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 67.15	Scale 1:50
Client: St William Homes		Dates: 16/06/2021 - 16/06/2021	Logged By Driller

Well

Remarks  
100 mm standpipe installed. Response zone 6 m to 10 m. Depths measured from ground level on day of drilling. Ground level subsequently raised during groundworks.



# Borehole Log

Borehole No.

**BH307**

Sheet 2 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493730.00 - 167603.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 67.15	Scale 1:50
Client: St William Homes		Dates: 16/06/2021 - 16/06/2021	Logged By Driller

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
☐							End of borehole at 10.00 m	11 12 13 14 15 16 17 18 19 20

Remarks  
 100 mm standpipe installed. Response zone 6 m to 10 m. Depths measured from ground level on day of drilling. Ground level subsequently raised during groundworks.



# Borehole Log

Borehole No.

**BH307A**

Sheet 1 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493724.00 - 167606.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 68.30	Scale 1:50
Client: St William Homes		Dates: 02/07/2021 - 02/07/2021	Logged By CAW

Well

Remarks  
50 mm standpipe installed. Response zone 1.2m to 10.20 m.



# Borehole Log

Borehole No.

**BH307A**

Sheet 2 of 2

Project Name: Bridge Road, Ascot	Project No. M41977	Co-ords: 493724.00 - 167606.00	Hole Type CP
Location: Bridge Road, Sunningdale		Level: 68.30	Scale 1:50
Client: St William Homes		Dates: 02/07/2021 - 02/07/2021	Logged By CAW

Well	Water Strikes	Samples and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
					10.20	58.10		End of borehole at 10.20 m
								11
								12
								13
								14
								15
								16
								17
								18
								19
								20

Remarks  
50 mm standpipe installed. Response zone 1.2m to 10.20 m.

# Appendix G - EPO & EA Correspondence



Hilary Ilsley

---

From: Michael McNaughton <Michael.McNaughton@RBWM.gov.uk>  
Sent: 10 September 2021 14:30  
To: Rafal Chodkowski  
Cc: Hilary Ilsley  
Subject: RBWMB MM. Revised REM STRAT OK extended gardens to Plots 64-72 [Filed 13 Sep 2021 10:23]

Good afternoon Rafal,

I can confirm that the laboratory analysis results are suitably low and that the methodology you propose for vac excavating, placement of membrane and topsoil with a purchaser hand over pack is satisfactory.

Please make sure that this amendment to the remediation plan is suitably updated in the verification reporting when submitted.

Kind regards

Michael McNaughton MSc BSc(Hons) MEnvSc  
Environmental Protection Officer  
Communities, Partnerships & Enforcement Service

The Royal Borough of Windsor and Maidenhead  
Town Hall, St Ives Road, Maidenhead SL6 1RF

Mobile: 07966 374537  
Website: [www.rbwm.gov.uk](http://www.rbwm.gov.uk)  
Follow us on Twitter: @RBWM  
Like us on Facebook

---

From: Rafal Chodkowski <Rafal.Chodkowski@berkeleygroup.co.uk>  
Sent: 02 September 2021 15:30  
To: Michael McNaughton <Michael.McNaughton@RBWM.gov.uk>  
Cc: Hilary Ilsley <Hilary.Ilsley@jnpgroup.co.uk>  
Subject: RE: Sunninghill- extended gardens to Plots 64-72

**CAUTION: This email originated from outside the council. Do not click any links or open attachments in this email unless you recognise the sender and are sure that the content is safe.**

Afternoon Michael,

Hope you are fine.

Please find attached contamination test results with respect to Plots 64-72, as requested.

BHOC and JNP propose to vac excavate within tree protection zone as much as we can i.e. 150-300mm. Place the orange membrane and clean top soil on top of the membrane. This area will be highlighted in Purchaser handover pack as well. Please note sewer easement run across the back of the gardens as well.

Can you review and advise, if this approach is acceptable from EH point of view please.

Thank you and look forward to hearing from you.

Regards,

**Rafal Chodkowski** MEng (Hons)  
Head of Engineering



**Berkeley Homes (Oxford & Chiltern) Ltd & St William Homes LLP (North West London region)**

Berkeley House, Mill Lane, Taplow, Maidenhead, SL6 0AG

Telephone. 01753 784400 Mobile. 07919058572

[www.berkeleygroup.co.uk](http://www.berkeleygroup.co.uk) [www.stwilliam.co.uk](http://www.stwilliam.co.uk)

Think before you print. Save energy and paper. Do you really need to print this email? Can you print it double sided?

This email including attachments is confidential, may be covered by legal professional privilege and is intended for the addressee only. If you are not the intended recipient you are prohibited from printing copying or distributing it. If you have received this email in error, please notify the sender immediately by email, fax or by telephone and delete this email from your system. Thank you

Berkeley Oxford and Chiltern Limited: Registered in England and Wales Number 2843844

St William Homes LLP – Registered in England and Wales Number OC396332

Registered Office for both companies: Berkeley House, 19 Portsmouth Road, Cobham, Surrey, KT111JG



---

From: Michael McNaughton <[Michael.McNaughton@RBWM.gov.uk](mailto:Michael.McNaughton@RBWM.gov.uk)>

Sent: 15 July 2021 15:23

To: Rafal Chodkowski <[Rafal.Chodkowski@berkeleygroup.co.uk](mailto:Rafal.Chodkowski@berkeleygroup.co.uk)>

Cc: Hilary Ilesley <[Hilary.Ilesley@jnpgroup.co.uk](mailto:Hilary.Ilesley@jnpgroup.co.uk)>

Subject: RE: Sunninghill- extended gardens to Plots 64-72

**This message was sent from Michael McNaughton <[michael.mcnaughton@rbwm.gov.uk](mailto:michael.mcnaughton@rbwm.gov.uk)>. Please be careful opening attachments or clicking links and report any suspicious emails to [securitythreats@berkeleygroup.co.uk](mailto:securitythreats@berkeleygroup.co.uk)**

---

Good afternoon Rafal,

I can confirm that the proposed strategy is acceptable and I look forward to receiving the laboratory results when available.

Kind regards

Michael McNaughton MSc BSc(Hons) MEnvSc  
Environmental Protection Officer  
Communities, Partnerships & Enforcement Service

The Royal Borough of Windsor and Maidenhead  
Town Hall, St Ives Road, Maidenhead SL6 1RF

Mobile: 07966 374537  
Website: [www.rbwm.gov.uk](http://www.rbwm.gov.uk)  
Follow us on Twitter: @RBWM  
Like us on Facebook

---

From: Rafal Chodkowski <[Rafal.Chodkowski@berkeleygroup.co.uk](mailto:Rafal.Chodkowski@berkeleygroup.co.uk)>  
Sent: 15 July 2021 10:52  
To: Michael McNaughton <[Michael.McNaughton@RBWM.gov.uk](mailto:Michael.McNaughton@RBWM.gov.uk)>  
Cc: Hilary Ilesley <[Hilary.Ilesley@jnpgroup.co.uk](mailto:Hilary.Ilesley@jnpgroup.co.uk)>  
Subject: Sunninghill- extended gardens to Plots 64-72

**CAUTION: This email originated from outside the council. Do not click any links or open attachments in this email unless you recognise the sender and are sure that the content is safe.**

Dear Michael,

Thank you for your time we spoke last week regarding Plots 64-72 gardens. As discussed, we would like to extending the gardens right up to the site boundary. Current remediation strategy by JNP require top 150mm to be remediated. Shallow depth is due to existing trees and tree protection zone.

We propose to carry additional contamination tests out to confirm if this particular area is contaminated. We suggest 2 tests per plot. One of the depth of 300mm and second on 600mm depth. In total it will be 16no. tests i.e. 8 Plots with 2 tests per plot.

Can you advise, if the above strategy is acceptable from EHO point of view please? I cc'd our environmental consultant Hilary Ilesley of JNP in case if you need more information.

Trust this is acceptable and look forward to hearing from you.

Regards,

**Rafal Chodkowski** MEng (Hons)  
Senior Engineering Manager



**Berkeley Homes (Oxford & Chiltern) Ltd & St William Homes LLP (North West London region)**

Berkeley House, Mill Lane, Taplow, Maidenhead, SL6 0AG

Telephone. 01753 784400 Mobile. 07919058572

[www.berkeleygroup.co.uk](http://www.berkeleygroup.co.uk) [www.stwilliam.co.uk](http://www.stwilliam.co.uk)

Think before you print. Save energy and paper. Do you really need to print this email? Can you print it double sided?

This email including attachments is confidential, may be covered by legal professional privilege and is intended for the addressee only. If you are not the intended recipient you are prohibited from printing copying or distributing it. If you have received this email in error, please notify the sender immediately by email, fax or by telephone and delete this email from your system. Thank you

Berkeley Oxford and Chiltern Limited: Registered in England and Wales Number 2843844





This message is personal to and intended for the exclusive use of the named addressee only. It may contain material protected by legal or other privilege (laws restricting its use). If this message reaches you in error we apologise – in which case we request that you do not save it, print it, forward it, act on it, or tell anyone anything about it. All emails received and sent by the Royal Borough of Windsor and Maidenhead are subject to the Freedom of Information Act 2000 and other legislation, and may therefore be disclosed to a third party. Any views or opinions in this email are solely those of the author, and do not necessarily represent those of the Royal Borough. We also have partnerships with third parties (including Optalis and Achieving for Children who provide social care on behalf of the Royal Borough of Windsor and Maidenhead). The content of any emails sent by employees of these partners remain their responsibility, and are not the Royal Borough’s responsibility. All emails sent by the Royal Borough are checked for viruses, but this does not constitute a guarantee that they are virus-free. Thank you <http://www.rbwm.gov.uk>

This message is personal to and intended for the exclusive use of the named addressee only. It may contain material protected by legal or other privilege (laws restricting its use). If this message reaches you in error we apologise – in which case we request that you do not save it, print it, forward it, act on it, or tell anyone anything about it. All emails received and sent by the Royal Borough of Windsor and Maidenhead are subject to the Freedom of Information Act 2000 and other legislation, and may therefore be disclosed to a third party. Any views or opinions in this email are solely those of the author, and do not necessarily represent those of the Royal Borough. We also have partnerships with third parties (including Optalis and Achieving for Children who provide social care on behalf of the Royal Borough of Windsor and Maidenhead). The content of any emails sent by employees of these partners remain their responsibility, and are not the Royal Borough’s responsibility. All emails sent by the Royal Borough are checked for viruses, but this does not constitute a guarantee that they are virus-free. Thank you <http://www.rbwm.gov.uk>

Hilary Ilsley

---

From: Michael McNaughton <Michael.McNaughton@RBWM.gov.uk>  
Sent: 14 March 2022 12:31  
To: Hilary Ilsley  
Cc: Ross McGroarty; Rafal Chodkowski  
Subject: RE: Former Sunninghill GAS Works, Bridge Road. Post Remediation Offsite Gas Risk Assessment

Good afternoon Hilary,

Given the results of the post remediation gas monitoring, I can confirm that I am in agreement with the technical notes outcomes in that the previously proposed venting trench is not required. The CS2 preclusion measures are still to be incorporated and verified as proposed.

Kind regards

Michael McNaughton MSc BSc(Hons) MEnvSc  
Environmental Protection Officer

Place Directorate  
The Royal Borough of Windsor and Maidenhead  
Town Hall, St Ives Road, Maidenhead SL6 1RF

Mobile: 07966 374537  
Website: [www.rbwm.gov.uk](http://www.rbwm.gov.uk)  
Follow us on Twitter: @RBWM  
Like us on Facebook

---

From: Hilary Ilsley <Hilary.Ilsley@jnpgroup.co.uk>  
Sent: 23 February 2022 16:21  
To: Michael McNaughton <Michael.McNaughton@RBWM.gov.uk>  
Cc: Ross McGroarty <Ross.McGroarty@berkeleygroup.co.uk>; Rafal Chodkowski <Rafal.Chodkowski@berkeleygroup.co.uk>  
Subject: Former Sunninghill GAS Works, Bridge Road. Post Remediation Offsite Gas Risk Assessment

**CAUTION:** This email originated from outside the council. Do not click any links or open attachments in this email unless you recognise the sender and are sure that the content is safe.

Hello Michael

In accordance with the agreed remediation strategy for the above site, JNP Group have completed six rounds of post remediation gas monitoring and undertaken an updated assessment for off-site gas risks.

Originally there was the potential for inclusion of a gas venting trench along the adjacent residential boundaries to the site, however, this was to be re-assessed following the remediation works and a short period of post remediation monitoring.

We have completed this additional gas monitoring, please find the report attached. Based on the results and assessment, JNP Group consider that the site poses a very low risk to the

adjacent properties from off-site gas migration. There has been no flow recorded at the site and, as a result of the remediation works undertaken, the source material (soils and groundwater) has been removed or reduced in concentrations in line with the agreed RTV.

All on-site dwellings will have gas protection to CS2 that requirement hasn't changed, but JNP Group consider that the gas venting trench is not necessary at the site.

If you could review the report attached and provide agreement to our conclusions that would be greatly appreciated.

Kind regards  
Hilary

Hilary Ilsley  
BSc (Jnt Hons) MSc CBiol MSB NQMS SQP SiLC QP  
Associate (Geo-environmental Scientist)



Brighton · Bristol · Chesham · Glasgow · Hartlepool · [Leamington Spa](#) · Sheffield

Portobello House, Portobello Way, Warwick. CV34 5GJ  
t: 01926 889955 w: [jnpgroup.co.uk](http://jnpgroup.co.uk)



JNP Group are proud to be Corporate Patrons of CRASH

This message, including any attachments, is strictly confidential, protected by law, and is intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, be advised that you have received this message in error, and that any use, dissemination, forwarding, printing, alteration or copying of this e-mail and any attachments is strictly prohibited and we will not be liable for any direct, special, indirect or consequential loss/damages arising from any action taken or omitted to be taken in reliance on it or any alteration of the contents of this message by you or any third party. If you have received this e-mail in error, please contact the sender immediately. The views expressed in this email are not necessarily the views of JNP Group, its owners or employees and makes no representation or accepts any liability for its accuracy or completeness unless expressly stated to the contrary.

We have made every effort to ensure that emails and any attachments generated are free from viruses. However, we cannot accept any responsibility for any viruses which are transmitted. We recommend that you scan all attachments.

**Use of your personal information:** JNP Group takes data protection very seriously and the privacy notice that will apply to our use of your personal information can be found at <https://www.jnpgroup.co.uk/policies>

This message is personal to and intended for the exclusive use of the named addressee only. It may contain material protected by legal or other privilege (laws restricting its use). If this message reaches you in error we apologise – in which case we request that you do not save it, print it, forward it, act on it, or tell anyone anything about it. All emails received and sent by the Royal Borough of Windsor and Maidenhead are subject to the Freedom of Information Act 2000 and other legislation, and may therefore be disclosed to a third party. Any views or opinions in this email are solely those of the author, and do not necessarily represent those of the Royal Borough. We also have partnerships with third parties (including Optalis and Achieving for Children who provide social care on behalf of the Royal Borough of Windsor and Maidenhead). The content of any emails sent by employees of these partners remain

their responsibility, and are not the Royal Borough's responsibility. All emails sent by the Royal Borough are checked for viruses, but this does not constitute a guarantee that they are virus-free. Thank you <http://www.rbwm.gov.uk>

Hilary Ilsley

---

From: Hampton, Craig <craig.hampton@environment-agency.gov.uk>  
Sent: 28 March 2022 17:05  
To: Hilary Ilsley  
Subject: RE: Sunninghill Gas Works Groundwater Results and the Need to Replacement Boreholes -

Hi Hilary

What you are proposing is acceptable. I look forward to receiving the results.  
Craig

Craig Hampton  
Technical Specialist Groundwater & Contaminated Land  
BSc,MSc,CGeol, EuroGeol, ASoBRA  
Direct dial 02030259616  
**Please note I only work Monday Thursday, Friday**

---

From: Hilary Ilsley <Hilary.Ilsley@jnpgroup.co.uk>  
Sent: 28 March 2022 12:33  
To: Hampton, Craig <craig.hampton@environment-agency.gov.uk>  
Cc: Green, Sarah <Sarah.Green1@environment-agency.gov.uk>; Sarah Longstaff <Sarah.Longstaff@jnpgroup.co.uk>  
Subject: RE: Sunninghill Gas Works Groundwater Results and the Need to Replacement Boreholes -

Some people who received this message don't often get email from [hilary.ilsley@jnpgroup.co.uk](mailto:hilary.ilsley@jnpgroup.co.uk). [Learn why this is important](#)

Hi Craig

Thank you for your response and based on your comments, it is our understanding that effectively the north-east and north-west boreholes have demonstrated effectiveness of treatment and no deterioration from the piling works. However, there are some elevated lighter fraction hydrocarbons remaining in the south-east and this requires further monitoring, particularly in the shallow groundwater. Please note that this area was not an original hot spot, and hence JNP Group consider that the works and adverse weather have flushed out the hydrocarbon contamination.

Therefore, we propose to re-drill one 10 m deep borehole so we can continue to monitor the shallow groundwater in this area. Given the constraints with utilities and building plots in this area we will aim to install the replacement borehole as close as we can to the original but it is unlikely to be in the same location, see attached plan showing possible locations. We will monitor on a fortnightly basis for three months. Groundwater samples will be analysed for TPH CWG and naphthalene. After the three months we will update you with our findings.

Could you confirm that this is an acceptable approach and that the possible locations for the replacement boreholes are acceptable?

Kind regards  
Hilary

Hilary Ilsley  
BSc (Jnt Hons) MSc CBiol MSB NQMS SQP SiLC QP  
Associate (Geo-environmental Scientist)



Brighouse · Bristol · Chesham · Glasgow · Hartlepool · [Leamington Spa](#) · Sheffield

Portobello House, Portobello Way, Warwick. CV34 5GJ  
t: 01926 889955 w: [jnpgroup.co.uk](http://jnpgroup.co.uk)



JNP Group are proud to be Corporate Patrons of CRASH

This message, including any attachments, is strictly confidential, protected by law, and is intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, be advised that you have received this message in error, and that any use, dissemination, forwarding, printing, alteration or copying of this e-mail and any attachments is strictly prohibited and we will not be liable for any direct, special, indirect or consequential loss/damages arising from any action taken or omitted to be taken in reliance on it or any alteration of the contents of this message by you or any third party. If you have received this e-mail in error, please contact the sender immediately. The views expressed in this email are not necessarily the views of JNP Group, its owners or employees and makes no representation or accepts any liability for its accuracy or completeness unless expressly stated to the contrary.

We have made every effort to ensure that emails and any attachments generated are free from viruses. However, we cannot accept any responsibility for any viruses which are transmitted. We recommend that you scan all attachments.

**Use of your personal information:** JNP Group takes data protection very seriously and the privacy notice that will apply to our use of your personal information can be found at <https://www.jnpgroup.co.uk/policies>

---

From: Hampton, Craig <[craig.hampton@environment-agency.gov.uk](mailto:craig.hampton@environment-agency.gov.uk)>  
Sent: 25 March 2022 15:43  
To: Hilary Ilsley <[Hilary.Ilsley@jnpgroup.co.uk](mailto:Hilary.Ilsley@jnpgroup.co.uk)>  
Cc: Green, Sarah <[Sarah.Green1@environment-agency.gov.uk](mailto:Sarah.Green1@environment-agency.gov.uk)>  
Subject: [Pending]RE: Sunninghill Gas Works Groundwater Results and the Need to Replacement Boreholes -

Hi Hilary  
Thank you for the additional information. Your email finishes with the following  
On the basis of the above, are you still satisfied that monitoring can cease and therefore replacement boreholes are not required at the site?

This is basically two questions. I think the information you have presented indicates a reasonable level of monitoring across the site and also that in a number of locations the situation is either no worse than previously observed or at least it is declining since piling.

Therefore over all I am minded not to request reinstatement of lost monitoring wells.

On the second part of the question I think there are still parts of the site where falling trends have not been fully demonstrated for example Benzene and Phenol at BH304 & 305A. This coupled with the fact some of the determinands including naphthalene, benzene etc are not only in some case 100s of times in excess of environmental quality starts but often 100s pre-piling levels. Naphthalene has a remedial target level of 686ug/l which still is being exceeded in the last monitoring round. I think I would like to see an extension of the monitoring period to fully demonstrate declining trends where we can be confident they will return to pre-piling levels at least. Monitoring frequency could be reduced if extended time periods are expected. Generally gasworks are often remediated on a 'betterment' approach, I think this needs to be fully demonstrated by the monitoring.

Please get back to me if you require further clarification.

Regards

Craig Hampton  
Technical Specialist Groundwater & Contaminated Land  
BSc,MSc,CGeol, EuroGeol, ASoBRA  
Direct dial 02030259616  
**Please note I only work Monday Thursday, Friday**

---

From: Hilary Ilsley <[Hilary.Ilsley@jnpgroup.co.uk](mailto:Hilary.Ilsley@jnpgroup.co.uk)>  
Sent: 25 March 2022 11:59  
To: Hampton, Craig <[craig.hampton@environment-agency.gov.uk](mailto:craig.hampton@environment-agency.gov.uk)>  
Cc: Sarah Longstaff <[Sarah.Longstaff@jnpgroup.co.uk](mailto:Sarah.Longstaff@jnpgroup.co.uk)>  
Subject: Sunninghill Gas Works Groundwater Results and the Need to Replacement Boreholes -

You don't often get email from [hilary.ilsley@jnpgroup.co.uk](mailto:hilary.ilsley@jnpgroup.co.uk). [Learn why this is important](#)

Hello Craig

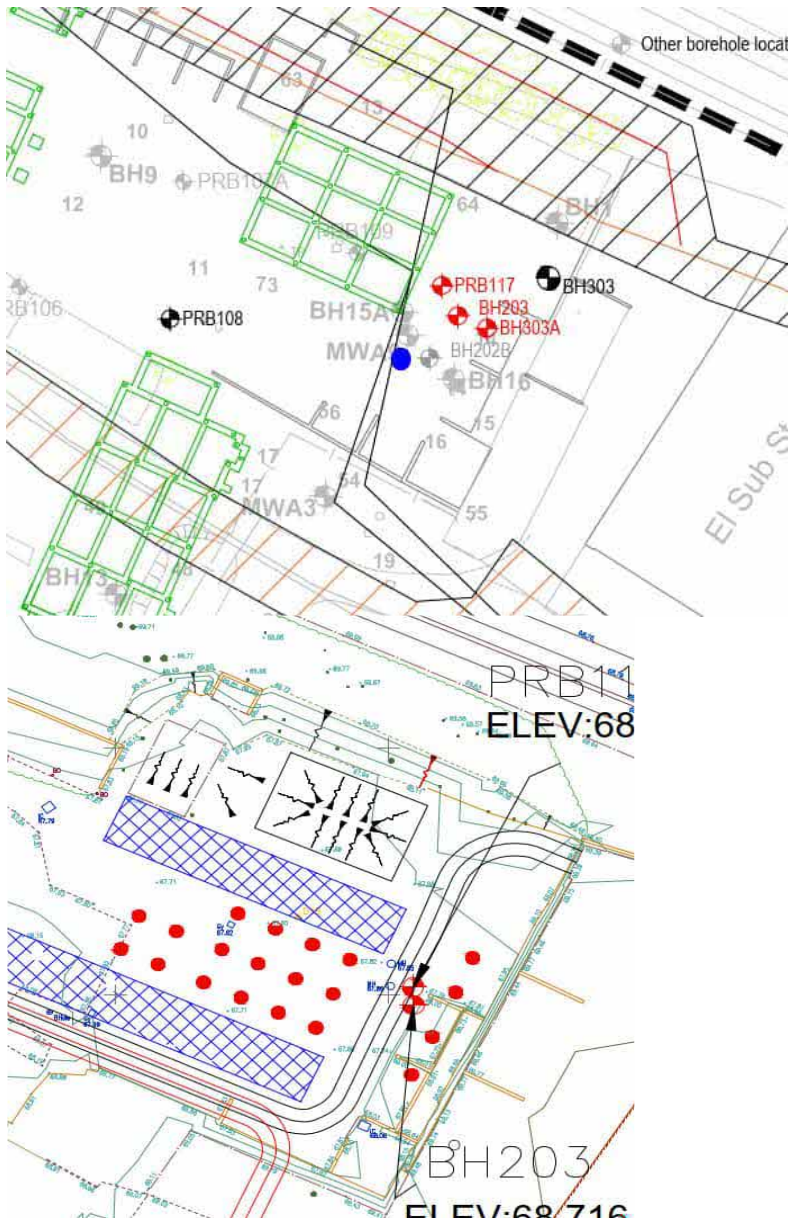
Apologies for the slight delay in getting our graphs and revised text across to you. The graphs provide a better picture of the groundwater concentration trends, and hence we have revised the report text accordingly (see below). I have attached all the graphs, when reviewing these, we have used a colour scheme to indicate the site area; red for north-east boreholes, green for north-west boreholes and blue for south-east boreholes with the deeper groundwater shown as the darker colour. We have also marked on graphs, main earthworks, groundwater treatment and piling dates.

For ease of reading, I have reiterated our previous response regarding PRB110 and ammonium / ammoniacal nitrogen.

Regarding borehole PRB110, on Extract 1 below I have marked its location as a blue circle. The whole of this north-east corner was a logistical nightmare for borehole location due to existing services and diversion work for sewers and electricity. As you can see, PRB110 is not located too far from our monitoring boreholes, which are slightly down gradient, the second extract shows where the treatment material was injected into the groundwater,

which did cover the PRB110 area. We consider that the monitoring borehole results do represent the groundwater quality of this former hot spot area.

Extract 1



Extract 2

Regarding the ammonium (ammoniacal nitrogen) concentrations, yes they remain elevated in the north-east corner but are an order of magnitude better in the deep groundwater compared to the south. Our treatment was mainly focused on hydrocarbons and was unlikely to reduce ammonium. There was a lot of open excavation and disturbance of ground in this area, it is considered likely that during heavy periods of winter rainfall flushed the ammonium through the soil and into the surrounding groundwater. It is therefore considered transitory.

Regarding the groundwater monitoring results pre and during piling – we are updating the report currently to include these results. Below is an extract from the updated text showing summary tables, trend graphs and our interpretation of the results.

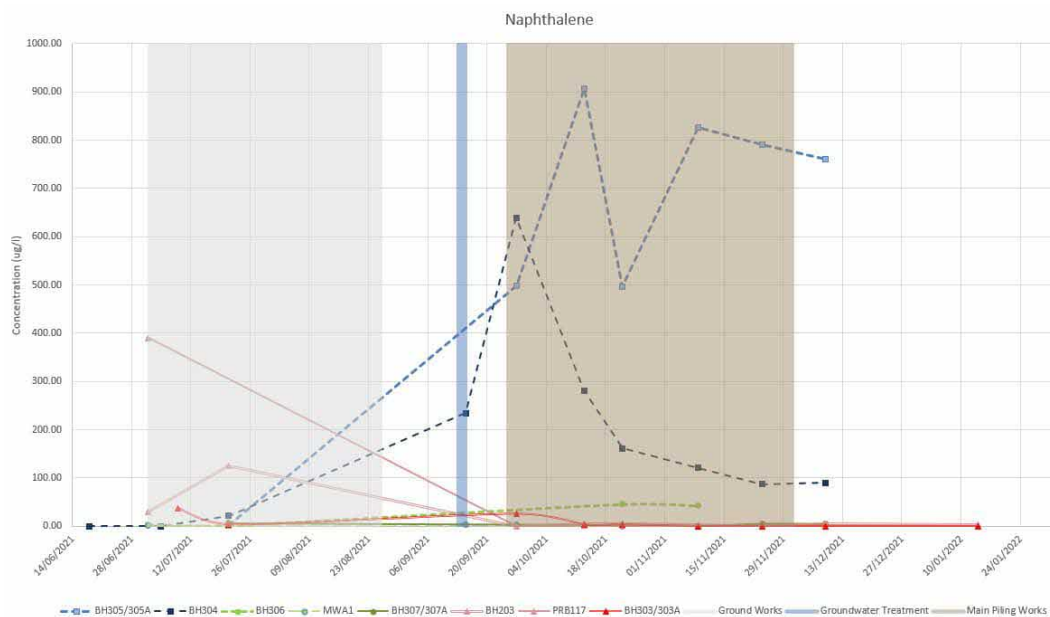


- 1.1.1 Pre-piling and during piling groundwater monitoring was undertaken across the site, in both the shallow and deep groundwater, in up and down gradient boreholes. However, due to site works, many of these boreholes were destroyed and due to operational constraints could not be replaced. Therefore, the discussion on water quality that follows focuses on the boundary boreholes (north-east, north-west and south-east) where there is the most data available.
- 1.1.2 The tables that follow show the range in concentrations of selected contaminants including ammoniacal nitrogen, total phenol, benzene, naphthalene, aliphatic fraction C<sub>12</sub>-C<sub>16</sub>, and aromatic fractions C<sub>10</sub>-C<sub>12</sub> and C<sub>12</sub>-C<sub>16</sub>. In addition, trend graphs showing the changes in all concentrations for these contaminants in both the shallow and deep groundwater have been included in Appendix I to this report and where relevant have been reproduced below.
- 1.1.3 The full set of groundwater results for the pre-piling and during piling are also included in Appendix I.
- 1.1.4 Table 4.5: BH305/A and BH304 Concentration Range Summary

South-east Corner (up gradient)		Pre-Piling Concentrations Range (µg/l)	During-Piling Concentrations Range (µg/l)
BH305/A (Shallow)	Ammoniacal Nitrogen as N (mg/l)	0.85-65	73-110
	Total Phenols (monohydric)	<10 – 600	340-1200
	Naphthalene	<0.01 – 499	497-908
	Benzene	<1 – 777	497 – 1070
	Aliphatic C <sub>12</sub> -C <sub>16</sub>	<10	<10
	Aromatic C <sub>10</sub> -C <sub>12</sub>	<10 – 550	16-2700
	Aromatic C <sub>16</sub> -C <sub>21</sub>	<10 – 570	<10 – 1800
BH304 (deep)	Ammoniacal Nitrogen as N (mg/l)	0.27 - 75	0.23 - 68
	Total Phenols (monohydric)	<10 – 240	150 – 240
	Naphthalene	<0.01 – 639	86.9 - 281
	Benzene	<1 – 572	280 – 423
	Aliphatic C <sub>12</sub> -C <sub>16</sub>	<10	<10
	Aromatic C <sub>10</sub> -C <sub>12</sub>	<10 – 70640	87<10 – 840
	Aromatic C <sub>16</sub> -C <sub>21</sub>	<10 -230	<10 - 35440

- 1.1.5 From the above table and graphs, the shallow groundwater shows increased concentrations of most hydrocarbon contaminants during piling compared to pre-piling, but with the majority of contaminants generally reducing in concentration towards the end of the piling. Benzene and naphthalene concentrations remain elevated.
- 1.1.6 The deeper groundwater contamination concentrations pre and during piling, were similar orders of magnitude. Benzene and naphthalene concentrations spike during piling but as this progressed the concentrations generally decrease.

Figure 4.1 Naphthalene Concentrations

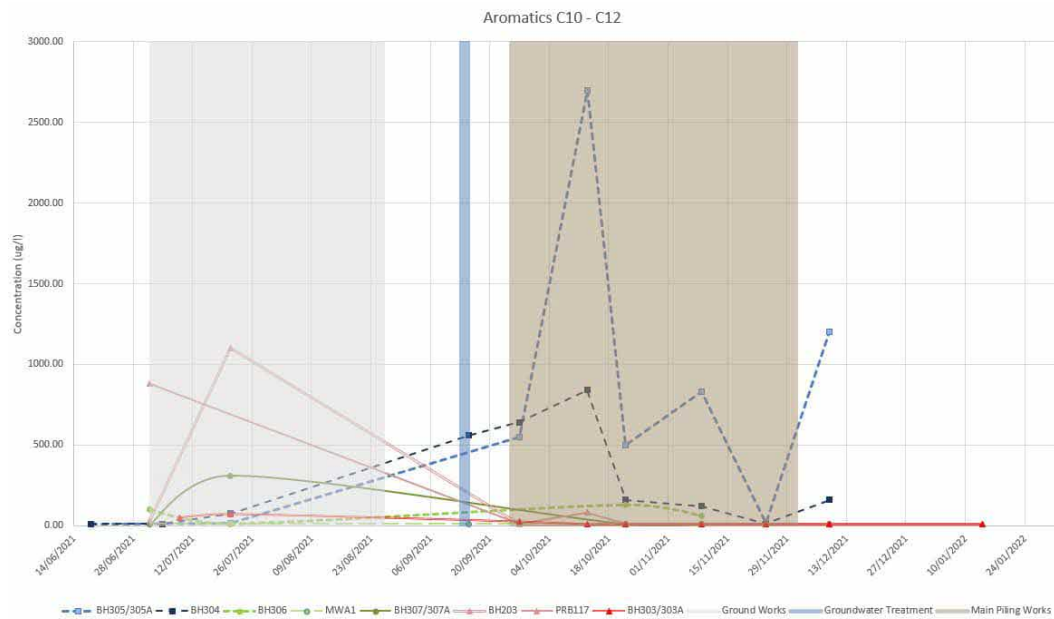


- 1.1.7 Ammoniacal nitrogen concentrations remain generally similar throughout the works in this part of the site.
- 1.1.8 In this area of the site, the piling works may have had a negative impact on groundwater quality, however, JNP Group consider that the increase in hydrocarbon contamination seen in the shallow groundwater is the result of the works being undertaken in winter, where some heavy infiltration events were recorded, and that this has flushed some residual hydrocarbon contamination through the shallow soils with possibly the more mobile benzene and naphthalene reaching the deep groundwater.
- 1.1.9 Table 4.6: BH306/MWA1 and BH307/A Concentration Range Summary

North-west Corner (possible down gradient)		Pre-Piling Concentrations Range (µg/l)	During-Piling Concentrations Range (µg/l)
BH306 / MWA1 (Shallow)	Ammoniacal Nitrogen as N (mg/l)	0.18 -17	0.16 -3.3
	Total Phenols (monohydric)	<10-36	<10 - 11
	Naphthalene	0.46 –2.48	<0.01 –45.4
	Benzene	<1-22.569	<1 - 10
	Aliphatic C <sub>12</sub> -C <sub>16</sub>	<10 – 160	<10
	Aromatic C <sub>10</sub> -C <sub>12</sub>	<10-100	<10 - 130
	Aromatic C <sub>16</sub> -C <sub>21</sub>	<10-30140	<10 - 160
BH307/A (Deep)	Ammoniacal Nitrogen as N (mg/l)	1.4	0.29 –0.63
	Total Phenols (monohydric)	18-41	10-16
	Naphthalene	1.11 – 5.87	4.2<0.01 – 4.78
	Benzene	5 – 17.1	<1.0
	Aliphatic C <sub>12</sub> -C <sub>16</sub>	<10	<10
	Aromatic C <sub>10</sub> -C <sub>12</sub>	10 - 310	<10 – 10
	Aromatic C <sub>16</sub> -C <sub>21</sub>	<10 - 20	11 0– 45

- 1.1.10 From the above table and the trend graphs, the pre and during piling concentrations are generally a similar order of magnitude; the shallow groundwater showed a slight improvement in some of the hydrocarbons, which could be linked to the treatment that was undertaken in the north-east area of the site. There is a slight increase seen in the aromatic fractions and naphthalene concentrations during piling; the naphthalene results are below the RTV of 686 µg/l. The ammoniacal nitrogen concentrations remain relatively similar throughout.

Figure 4.2 Aromatic Hydrocarbons C<sub>10</sub> – C<sub>12</sub>

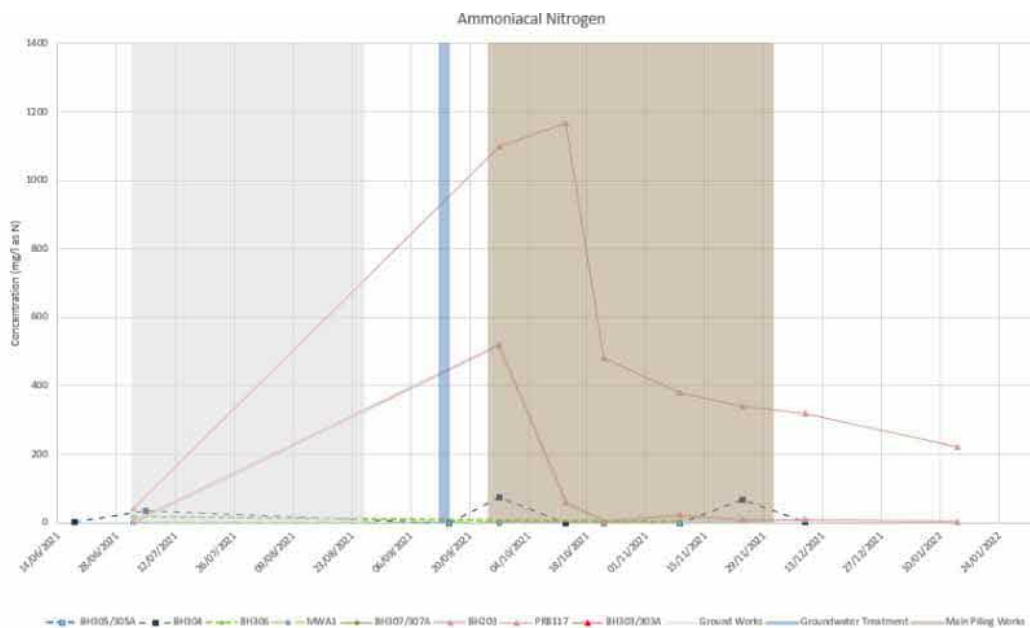


- 1.1.11 The deep groundwater results show no overall impact on groundwater quality as a result of piling.
- 1.1.12 Therefore, in this area, JNP Group do not consider that the piling works have adversely affected the underlying groundwater.
- 1.1.13 Table 4.7: BH203/PRB117 and BH303/A Concentration Range Summary

North-east Corner (down gradient)		Pre-Piling Concentrations Range (µg/l)	During-Piling Concentrations Range (µg/l)
BH203/ PRB117 (Shallow)	Ammoniacal Nitrogen as N (mg/l)	1.9 - 1100	3.1 -1167
	Total Phenols (monohydric)	<10 - 710	<10-13
	Naphthalene	<0.01 - 390	<0.01-5.86
	Benzene	<1 – 594	<1 - 10
	Aliphatic C <sub>12</sub> -C <sub>16</sub>	<10 - 3800	<10 - 680
	Aromatic C <sub>10</sub> -C <sub>12</sub>	<10 -1100	<10-80
	Aromatic C <sub>16</sub> -C <sub>21</sub>	<10 - 430	<10
BH303/A (deep)	Ammoniacal Nitrogen as N (mg/l)	44	30- 45.8
	Total Phenols (monohydric)	<10 --130	<10 –12
	Naphthalene	3.22 –37.4	<0.01 –3.22
	Benzene	<1 – 14.2	<1 – 7.711
	Aliphatic C <sub>12</sub> -C <sub>16</sub>	<10	<10
	Aromatic C <sub>10</sub> -C <sub>12</sub>	26 -71	<10
	Aromatic C <sub>16</sub> -C <sub>21</sub>	<10-100	<10

- 1.1.14 From the above table and the trend graphs, the hydrocarbon concentrations within the shallow groundwater and deep groundwater have decreased during piling, compared to the pre-piling concentrations, most likely as a result of the treatment undertaken in this area.
- 1.1.15 The ammoniacal nitrogen concentrations spike at the beginning of the piling works and then reduce significantly and continue to reduce. The concentrations in the shallow groundwater remain elevated compared to drinking water standards of 0.39 mg/l (as N).The ammoniacal nitrogen concentrations are an order of magnitude better in the deep groundwater compared to the south of the site. The objective of the groundwater treatment was to treat hydrocarbons and was unlikely to reduce ammoniacal nitrogen. In addition, as there was a lot of open excavation and disturbance of ground in this area, it is considered likely that this along heavy periods of rainfall flushed the ammoniacal nitrogen through the soil and into the surrounding groundwater.

Figure 4.3 Ammoniacal Nitrogen Concentrations



1.1.16 Therefore, in this area of the site, JNP Group consider that the piling works have not resulted in any significant deterioration in groundwater quality across the site.

1.1.17 By way of comparison, and to demonstrate an overall improvement to the groundwater quality at the site, the groundwater results from 2019 JNP Group Ground Investigation (as reported M41977 RE005 Rev B Combined Ground Investigations Report. 18 July 2019) for the same contaminants are summarised below

Table 4.8: JNP Group Ground Investigation 2019 Groundwater Summary Maximum Results

Contaminant	Shallow Groundwater (µg/l)	Deep Groundwater (µg/l)
Ammoniacal Nitrogen as N mg/l	150	130
Total Phenols (monohydric)	4700	4500
Naphthalene	9110	2360
Benzene	3290	2720
Aliphatic C <sub>12</sub> -C <sub>16</sub>	1900	<10
Aromatic C <sub>10</sub> -C <sub>12</sub>	1900	11000
Aromatic C <sub>16</sub> -C <sub>21</sub>	6400	4000

1.1.18 The hydrocarbon concentrations during piling and post treatment show a considerable reduction across the site. compared to the results given above. The ammoniacal nitrogen concentrations are reduced in the deeper groundwater, and are generally similar in the shallow groundwater.

1.1.19 Therefore, taking all the above results into consideration, JNP Group’s overall conclusion is that the piling works have not significantly impacted on groundwater quality, local mobilisation of shallow contamination has resulted from the combined effect of construction works and weather, and that the remediation works undertaken at the site, via source removal, soil treatment and groundwater treatment have combined to significantly improve the underlying groundwater quality at the site.

On the basic of the above, are you still satisfied that monitoring can cease and therefore replacement boreholes are note required at the site?

Kind regards  
Hilary

Hilary Ilsley  
BSc (Jnt Hons) MSc CBIol MSB NQMS SQP SiLC QP  
Associate (Geo-environmental Scientist)



Brighouse · Bristol · Chesham · Glasgow · Hartlepool · Leamington Spa · Sheffield

Portobello House, Portobello Way, Warwick. CV34 5GJ  
t: 01926 889955 w: [jnpgroup.co.uk](http://jnpgroup.co.uk)



JNP Group are proud to be Corporate Patrons of CRASH

This message, including any attachments, is strictly confidential, protected by law, and is intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, be advised that you have received this message in error, and that any use, dissemination, forwarding, printing, alteration or copying of this e-mail and any attachments is strictly prohibited and we will not be liable for any direct, special, indirect or consequential loss/damages arising from any action taken or omitted to be taken in reliance on it or any alteration of the contents of this message by you or any third party. If you have received this e-mail in error, please contact the sender immediately. The views expressed in this email are not necessarily the views of JNP Group, its owners or employees and makes no representation or accepts any liability for its accuracy or completeness unless expressly stated to the contrary.  
We have made every effort to ensure that emails and any attachments generated are free from viruses. However, we cannot accept any responsibility for any viruses which are transmitted. We recommend that you scan all attachments.  
**Use of your personal information:** JNP Group takes data protection very seriously and the privacy notice that will apply to our use of your personal information can be found at <https://www.jnpgroup.co.uk/policies>

Information in this message may be confidential and may be legally privileged. If you have received this message by mistake, please notify the sender immediately, delete it and do not copy it to anyone else. We have checked this email and its attachments for viruses. But you should still check any attachment before opening it. We may have to make this message and any reply to it public if asked to under the Freedom of Information Act, Data Protection Act or for litigation. Email messages and attachments sent to or from any Environment Agency address may also be accessed by someone other than the sender or recipient, for business purposes.  
Information in this message may be confidential and may be legally privileged. If you have received this message by mistake, please notify the sender immediately, delete it and do not copy it to anyone else. We have checked this email and its attachments for viruses. But you should still check any attachment before opening it. We may have to make this message and any reply to it public if asked to under the Freedom of Information Act, Data Protection Act or for litigation. Email messages and attachments sent to or from any Environment Agency address may also be accessed by someone other than the sender or recipient, for business purposes.

Hilary Ilsley

---

From: Thomas, Jenny <jenny.thomas@environment-agency.gov.uk>  
Sent: 01 September 2022 14:58  
To: Hilary Ilsley  
Cc: Sarah Longstaff; Green, Sarah  
Subject: EA JT Bridge Road Confirmation no more GW MON required [Filed 01 Sep 2022 16:24]

Hello Hilary,

Thank you for the clarification.

I confirm, following on from the approach adopted by Craig Hampton, sufficient monitoring has been undertaken and that no further groundwater monitoring is required at the site and BH305B can be decommissioned.

I look forward to receiving the full Verification Reports as required by condition 9 of the planning permission 18\_02704\_FULL—1934316

**(Appn. No.: 18/02704 Proposal: Redevelopment of the site to provide x53 houses and x23 apartments (Class C3) including the provision of new pedestrian and vehicular accesses and routes, car parking, landscaping, open space, remediation and associated works, following demolition of two existing redundant cottages.**

**Location:** Former British Gas Site Bridge Road Ascot)

for review in due course.

Kind regards,

Jenny

**Jenny Thomas**

Groundwater Quality Technical Specialist

**Environment Agency** | Kings Meadow House, Kings Meadow Road, READING, RG1 8DB

[jenny.thomas@environment-agency.gov.uk](mailto:jenny.thomas@environment-agency.gov.uk)

---

From: Hilary Ilsley <Hilary.Ilsley@jnpgroup.co.uk>  
Sent: 30 August 2022 10:25  
To: Thomas, Jenny <jenny.thomas@environment-agency.gov.uk>  
Cc: Sarah Longstaff <Sarah.Longstaff@jnpgroup.co.uk>; Green, Sarah <Sarah.Green1@environment-agency.gov.uk>  
Subject: RE: EA CH Bridge Road Extended Groundwater Monitoring Data Summary an Graphs Issued

Hello Jenny

Thank you for your response, I can confirm that BH305B (not C – sorry I wrongly referred to it as this in my email text) was a replacement borehole for BH305A however, it was positioned in a slightly different position due to constraints from the works, as shown on the plan attached This position was agreed with Craig Hampton. If you could confirm that this is all ok that would be great.

Kind regards  
Hilary

Hilary Ilsley  
BSc (Jnt Hons) MSc CBIol MSB NQMS SQP SiLC QP  
Associate (Geo-environmental Scientist)



Brighthouse · Bristol · Chesham · Glasgow · Hartlepool · [Leamington Spa](#) · Sheffield

Portobello House, Portobello Way, Warwick. CV34 5GJ  
t: 01926 889955 w: [jnpgroup.co.uk](http://jnpgroup.co.uk)



JNP Group are proud to be Corporate Patrons of CRASH

This message, including any attachments, is strictly confidential, protected by law, and is intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, be advised that you have received this message in error, and that any use, dissemination, forwarding, printing, alteration or copying of this e-mail and any attachments is strictly prohibited and we will not be liable for any direct, special, indirect or consequential loss/damages arising from any action taken or omitted to be taken in reliance on it or any alteration of the contents of this message by you or any third party. If you have received this e-mail in error, please contact the sender immediately. The views expressed in this email are not necessarily the views of JNP Group, its owners or employees and makes no representation or accepts any liability for its accuracy or completeness unless expressly stated to the contrary.

We have made every effort to ensure that emails and any attachments generated are free from viruses. However, we cannot accept any responsibility for any viruses which are transmitted. We recommend that you scan all attachments.

**Use of your personal information:** JNP Group takes data protection very seriously and the privacy notice that will apply to our use of your personal information can be found at <https://www.jnpgroup.co.uk/policies>

---

From: Thomas, Jenny <[jenny.thomas@environment-agency.gov.uk](mailto:jenny.thomas@environment-agency.gov.uk)>

Sent: 18 August 2022 18:01

To: Hilary Ilsley <[Hilary.Ilsley@jnpgroup.co.uk](mailto:Hilary.Ilsley@jnpgroup.co.uk)>

Cc: Sarah Longstaff <[Sarah.Longstaff@jnpgroup.co.uk](mailto:Sarah.Longstaff@jnpgroup.co.uk)>; Green, Sarah <[Sarah.Green1@environment-agency.gov.uk](mailto:Sarah.Green1@environment-agency.gov.uk)>

Subject: RE: EA CH Bridge Road Extended Groundwater Monitoring Data Summary an Graphs Issued

Hello Hilary,

Thank you for your email and for providing the graphs.

Please can you clarify that BH305B and BH305C both referred to in your email below are in fact the same borehole?

Provided that is the case, following on from the approach adopted by Craig Hampton, I confirm that sufficient monitoring has been undertaken and that no further groundwater monitoring is required at the site and BH305B can be decommissioned.

I look forward to receiving the full Verification Reports as required by condition 9 of the planning permission 18\_02704\_FULL—1934316

**(Appn. No.: 18/02704 Proposal: Redevelopment of the site to provide x53 houses and x23 apartments (Class C3) including the provision of new pedestrian and vehicular accesses and routes, car parking, landscaping, open space, remediation and associated works, following demolition of two existing redundant cottages.**

**Location:** Former British Gas Site Bridge Road Ascot)

for review in due course.

Kind regards,

Jenny

**Jenny Thomas**

Groundwater Quality Technical Specialist

**Environment Agency** | Kings Meadow House, Kings Meadow Road, READING, RG1 8DB

[jenny.thomas@environment-agency.gov.uk](mailto:jenny.thomas@environment-agency.gov.uk)

---

From: Hilary Ilsley <[Hilary.Ilsley@jnpgroup.co.uk](mailto:Hilary.Ilsley@jnpgroup.co.uk)>

Sent: 12 August 2022 09:26

To: Thomas, Jenny <[jenny.thomas@environment-agency.gov.uk](mailto:jenny.thomas@environment-agency.gov.uk)>

Cc: Sarah Longstaff <[Sarah.Longstaff@jnpgroup.co.uk](mailto:Sarah.Longstaff@jnpgroup.co.uk)>; Green, Sarah <[Sarah.Green1@environment-agency.gov.uk](mailto:Sarah.Green1@environment-agency.gov.uk)>

Subject: RE: EA CH Bridge Road Extended Groundwater Monitoring Data Summary an Graphs Issued

Hi Jenny

Thank you for your response, please find the graphs attached.

Kind regards

Hilary



Hilary Ilsley  
BSc (Jnt Hons) MSc CBiol MSB NQMS SQP SiLC QP  
Associate (Geo-environmental Scientist)



**JNP GROUP** · Brighouse · Bristol · Chesham · Glasgow · Hartlepool · [Leamington Spa](#) · Sheffield

Portobello House, Portobello Way, Warwick. CV34 5GJ  
t: 01926 889955 w: [jnpgroup.co.uk](http://jnpgroup.co.uk)



JNP Group are proud to be Corporate Patrons of CRASH

This message, including any attachments, is strictly confidential, protected by law, and is intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, be advised that you have received this message in error, and that any use, dissemination, forwarding, printing, alteration or copying of this e-mail and any attachments is strictly prohibited and we will not be liable for any direct, special, indirect or consequential loss/damages arising from any action taken or omitted to be taken in reliance on it or any alteration of the contents of this message by you or any third party. If you have received this e-mail in error, please contact the sender immediately. The views expressed in this email are not necessarily the views of JNP Group, its owners or employees and makes no representation or accepts any liability for its accuracy or completeness unless expressly stated to the contrary.

We have made every effort to ensure that emails and any attachments generated are free from viruses. However, we cannot accept any responsibility for any viruses which are transmitted. We recommend that you scan all attachments.

**Use of your personal information:** JNP Group takes data protection very seriously and the privacy notice that will apply to our use of your personal information can be found at <https://www.jnpgroup.co.uk/policies>

---

From: Thomas, Jenny <[jenny.thomas@environment-agency.gov.uk](mailto:jenny.thomas@environment-agency.gov.uk)>  
Sent: 11 August 2022 17:39  
To: Hilary Ilsley <[Hilary.Ilsley@jnpgroup.co.uk](mailto:Hilary.Ilsley@jnpgroup.co.uk)>  
Cc: Sarah Longstaff <[Sarah.Longstaff@jnpgroup.co.uk](mailto:Sarah.Longstaff@jnpgroup.co.uk)>; Green, Sarah <[Sarah.Green1@environment-agency.gov.uk](mailto:Sarah.Green1@environment-agency.gov.uk)>  
Subject: RE: EA CH Bridge Road Extended Groundwater Monitoring Data Summary an Graphs Issued

Dear Hilary,

Thank you for forwarding on your email to Craig. No doubt the graphs you refer to were attached to your original email to him but unfortunately they have not made it through to me. Please would you be able to forward these to me for my consideration.

Kind regards,

Jenny

**Jenny Thomas**

Groundwater Quality Technical Specialist

**Environment Agency** | Kings Meadow House, Kings Meadow Road, READING, RG1 8DB

[jenny.thomas@environment-agency.gov.uk](mailto:jenny.thomas@environment-agency.gov.uk)

From: Hilary Ilsley <[Hilary.Ilsley@jnpgroup.co.uk](mailto:Hilary.Ilsley@jnpgroup.co.uk)>  
Sent: 11 August 2022 11:58  
To: [jon.woodcock@environment-agency.gov.uk](mailto:jon.woodcock@environment-agency.gov.uk); Thomas, Jenny <[jenny.thomas@environment-agency.gov.uk](mailto:jenny.thomas@environment-agency.gov.uk)>  
Cc: Sarah Longstaff <[Sarah.Longstaff@jnpgroup.co.uk](mailto:Sarah.Longstaff@jnpgroup.co.uk)>; Green, Sarah <[Sarah.Green1@environment-agency.gov.uk](mailto:Sarah.Green1@environment-agency.gov.uk)>  
Subject: RE: EA CH Bridge Road Extended Groundwater Monitoring Data Summary an Graphs Issued

Some people who received this message don't often get email from [hilary.ilsley@jnpgroup.co.uk](mailto:hilary.ilsley@jnpgroup.co.uk). [Learn why this is important](#)

Hello Jon and Jenny

I have just received a response saying Craig has now retired from the EA and to forward you with any queries.

Craig had been dealing with the former gasworks site at Bridge Road, Sunninghill. We had agreed some further groundwater monitoring at the site, which has now been completed and we have provided as summary as below.

Could someone please review and provide a response. I am happy to discuss the below if you wish. The best number to get me on is 07976 007425.

Kind regards  
Hilary

Hilary Ilsley  
BSc (Jnt Hons) MSc CBiol MSB NQMS SQP SiLC QP  
Associate (Geo-environmental Scientist)



**JNP GROUP** · Brighouse · Bristol · Chesham · Glasgow · Hartlepool · [Leamington Spa](#) · Sheffield

Portobello House, Portobello Way, Warwick. CV34 5GJ  
t: 01926 889955 w: [jnpgroup.co.uk](http://jnpgroup.co.uk)



JNP Group are proud to be Corporate Patrons of CRASH

This message, including any attachments, is strictly confidential, protected by law, and is intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, be advised that you have received this message in error, and that any use, dissemination, forwarding, printing, alteration or copying of this e-mail and any attachments is strictly prohibited and we will not be liable for any direct, special, indirect or consequential loss/damages arising from any action taken or omitted to be taken in reliance on it or any alteration of the contents of this message by you or any third party. If you have received this e-mail in error, please contact the

sender immediately. The views expressed in this email are not necessarily the views of JNP Group, its owners or employees and makes no representation or accepts any liability for its accuracy or completeness unless expressly stated to the contrary.  
 We have made every effort to ensure that emails and any attachments generated are free from viruses. However, we cannot accept any responsibility for any viruses which are transmitted. We recommend that you scan all attachments.  
**Use of your personal information:** JNP Group takes data protection very seriously and the privacy notice that will apply to our use of your personal information can be found at <https://www.jnpgroup.co.uk/policies>

From: Hilary Ilsley  
 Sent: 11 August 2022 11:51  
 To: Hampton, Craig <[craig.hampton@environment-agency.gov.uk](mailto:craig.hampton@environment-agency.gov.uk)>  
 Cc: Sarah Longstaff <[Sarah.Longstaff@jnpgroup.co.uk](mailto:Sarah.Longstaff@jnpgroup.co.uk)>; [Sarah.Green1@environment-agency.gov.uk](mailto:Sarah.Green1@environment-agency.gov.uk)  
 Subject: EA CH Bridge Road Extended Groundwater Monitoring Data Summary an Graphs Issued

Hello Craig

Further to our discussions earlier in the year regarding on going monitoring at the Bridge Road site in Sunninghill, we have now completed the extended groundwater monitoring and wanted to provide a summary of our findings.

Replacement borehole BH305C was drilled in the south-eastern corner of the site and this has been sampled on six occasions between 10 May to 27 July 2022.

Groundwater was sampled, following purging, and scheduled for naphthalene and TPH CWG as agreed. We have continued to use i2 to undertake the chemical testing.

We have summarised the results in the table below and also included the last two rounds of the groundwater monitoring undertaken at the end of 2021.

			naphth	aro C10-12	benzene	aro C5-7	aro C12-16	aro C 16-21	total aliph
BH305A	24.11.21	GW10	790	790	960	960	16	<10	<10
	9.12.21	GW11	760	1200	1070	1100	690	98	<10
BH305B	10.5.22	GW14	489	490	78	78	420	580	<10
	24.5.22	GW15	440	440	64	64	390	250	<10
	7.6.22	GW16	4710	4710	43.5	44	370	320	<10
	20.6.22	GW17	359	520	59.4	59	320	240	<10
	13.7.22	GW18	495	810	44.5	45	540	750	<10
	27.7.22	GW19	395	400	<1	<1	280	330	<10

All results are in microg/litre.  
 The naphthalene concentrations high-lighted in green are below the agreed RTV of 686 microg/l.  
 Concentrations in amber are high results.

Looking at these results, we have concluded the following:

With the exception of the elevated naphthalene result recorded in monitoring round GW16, all naphthalene concentrations have been lower compared to the results recorded at the end of 2021

and are below the agreed RTV. Whilst we have queried the elevated result, which is an order of magnitude higher, with the testing laboratory; i2 have confirmed that the result is correct. Notwithstanding this, JNP Group consider this result to be a spurious outlier. The aromatic fraction C10-12 also showed elevated results, which is not unexpected as this fraction will include naphthalene and has generally recorded similar concentrations to the naphthalene. However, there were no elevated benzene or aromatic fraction C5-7 concentrations recorded after this to indicate any breakdown of such a high hydrocarbon concentration. Subsequent to the high result, it can be seen that the naphthalene (and aromatic C10-12) concentrations have reverted to their previous level and decreased over time.

With the exception of aromatic fraction C16-21; all other aromatic fraction concentrations are much lower compared to the monitoring results at the end of 2021 and have continued to decrease.

The slightly higher results for the aromatic fraction C16-21 compared to the end of 2021, could be attributed to their slower migration times through the aquifer. These results are not considered to pose a significant risk to controlled waters.

We have updated the trend graphs for naphthalene, benzene and aromatic fractions C10-12 and C16-21, which all demonstrate a falling concentration trend. These are attached for you to view. If you wish to see the testing reports we can issue these, but they will be included in the Final Verification Report.

JNP Group consider that sufficient monitoring has been undertaken and this demonstrates that the hydrocarbon concentrations within the underlying groundwater at the site are acceptable, do not pose a risk to controlled waters and that no further groundwater monitoring is required at the site and BH305B can be decommissioned.

It would be greatly appreciated if you can confirm that you agree with our conclusions.

Kind regards  
Hilary

Hilary Ilsley  
BSc (Jnt Hons) MSc CBiol MSB NQMS SQP SiLC QP  
Associate (Geo-environmental Scientist)



Portobello House, Portobello Way, Warwick. CV34 5GJ  
t: 01926 889955 w: [jnpgroup.co.uk](http://jnpgroup.co.uk)





JNP Group are proud to be Corporate Patrons of CRASH

This message, including any attachments, is strictly confidential, protected by law, and is intended solely for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, be advised that you have received this message in error, and that any use, dissemination, forwarding, printing, alteration or copying of this e-mail and any attachments is strictly prohibited and we will not be liable for any direct, special, indirect or consequential loss/damages arising from any action taken or omitted to be taken in reliance on it or any alteration of the contents of this message by you or any third party. If you have received this e-mail in error, please contact the sender immediately. The views expressed in this email are not necessarily the views of JNP Group, its owners or employees and makes no representation or accepts any liability for its accuracy or completeness unless expressly stated to the contrary.

We have made every effort to ensure that emails and any attachments generated are free from viruses. However, we cannot accept any responsibility for any viruses which are transmitted. We recommend that you scan all attachments.

**Use of your personal information:** JNP Group takes data protection very seriously and the privacy notice that will apply to our use of your personal information can be found at <https://www.jnpgroup.co.uk/policies>

Information in this message may be confidential and may be legally privileged. If you have received this message by mistake, please notify the sender immediately, delete it and do not copy it to anyone else. We have checked this email and its attachments for viruses. But you should still check any attachment before opening it. We may have to make this message and any reply to it public if asked to under the Freedom of Information Act, Data Protection Act or for litigation. Email messages and attachments sent to or from any Environment Agency address may also be accessed by someone other than the sender or recipient, for business purposes.

Information in this message may be confidential and may be legally privileged. If you have received this message by mistake, please notify the sender immediately, delete it and do not copy it to anyone else. We have checked this email and its attachments for viruses. But you should still check any attachment before opening it. We may have to make this message and any reply to it public if asked to under the Freedom of Information Act, Data Protection Act or for litigation. Email messages and attachments sent to or from any Environment Agency address may also be accessed by someone other than the sender or recipient, for business purposes.

Information in this message may be confidential and may be legally privileged. If you have received this message by mistake, please notify the sender immediately, delete it and do not copy it to anyone else. We have checked this email and its attachments for viruses. But you should still check any attachment before opening it. We may have to make this message and any reply to it public if asked to under the Freedom of Information Act, Data Protection Act or for litigation. Email messages and attachments sent to or from any Environment Agency address may also be accessed by someone other than the sender or recipient, for business purposes.

# Appendix H - Imported Fill Chemical Testing Provided by Berkeley Group





Unit A2  
Windmill Road  
Ponswood Industrial Estate  
St Leonards on Sea  
East Sussex  
TN38 9BY  
Telephone: (01424) 718618

[cs@elab-uk.co.uk](mailto:cs@elab-uk.co.uk)  
[info@elab-uk.co.uk](mailto:info@elab-uk.co.uk)

---

## THE ENVIRONMENTAL LABORATORY LTD

---

**Analytical Report Number:** 21-36607

**Issue:** 1

**Date of Issue:** 25/10/2021

**Contact:** Michael Gillman

**Customer Details:** Statom Group Ltd  
Statom House  
795 London Road  
Grays  
EssexRM20 3LH

**Quotation No:** Q21-02124

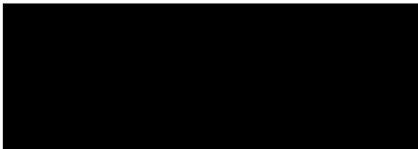
**Order No:** Not Supplied

**Customer Reference:** Not Supplied

**Date Received:** 15/10/2021

**Date Approved:** 25/10/2021

**Details:** Ascott

**Approved by:** 

Tim Reeve, Quality Officer

---

Any comments, opinions or interpretations expressed herein are outside the scope of UKAS accreditation (Accreditation Number 2683)

---

This report may only be reproduced in full

---

---



## Sample Summary

Report No.: 21-36607, issue number 1

Elab No.	Client's Ref.	Date Sampled	Date Scheduled	Description	Deviations
254505	S1 Water	14/10/2021	18/10/2021		
254506	S1 Soil	14/10/2021	18/10/2021	Loamy sand	
254507	S2 Soil	14/10/2021	18/10/2021	Loamy sand	





## Results Summary

Report No.: 21-36607, issue number 1

ELAB Reference	254506	254507
Customer Reference		
Sample ID		
Sample Type	SOIL	SOIL
Sample Location	S1 Soil	S2 Soil
Sample Depth (m)		
Sampling Date	14/10/2021	14/10/2021

Determinand	Codes	Units	LOD		
<b>Soil sample preparation parameters</b>					
Moisture Content	N	%	0.1	11.0	8.3
Material removed	N	%	0.1	11.2	35.4
Description of Inert material removed	N		0	Stones	Stones
<b>Metals</b>					
Arsenic	M	mg/kg	1	8.1	7.0
Cadmium	M	mg/kg	0.5	< 0.5	< 0.5
Chromium	M	mg/kg	5	17.4	15.7
Copper	M	mg/kg	5	13.5	5.9
Lead	M	mg/kg	5	76.5	29.3
Mercury	M	mg/kg	0.5	< 0.5	< 0.5
Nickel	M	mg/kg	5	5.9	< 5.0
Selenium	M	mg/kg	1	< 1.0	< 1.0
Zinc	M	mg/kg	5	41.7	26.3
<b>Inorganics</b>					
Complex Cyanide	N	mg/kg	1	2.0	16.9
Elemental Sulphur	M	mg/kg	20	40	32
Free Cyanide	N	mg/kg	1	< 1.0	< 1.0
Hexavalent Chromium	N	mg/kg	0.8	< 0.8	< 0.8
Total Cyanide	M	mg/kg	1	2.0	16.9
Acid Soluble Sulphate (SO <sub>4</sub> )	U	%	0.02	0.12	0.04
Water Soluble Boron	N	mg/kg	0.5	0.5	< 0.5
<b>Miscellaneous</b>					
pH	M	pH units	0.1	6.7	7.7
Soil Organic Matter	U	%	0.1	1.2	1.0
<b>Phenols</b>					
Phenol	M	mg/kg	1	< 1	< 1
M,P-Cresol	N	mg/kg	1	< 1	< 1
O-Cresol	N	mg/kg	1	< 1	< 1
3,4-Dimethylphenol	N	mg/kg	1	< 1	< 1
2,3-Dimethylphenol	M	mg/kg	1	< 1	< 1
2,3,5-trimethylphenol	M	mg/kg	1	< 1	< 1
Total Monohydric Phenols	N	mg/kg	5	< 5	< 5



# Results Summary

Report No.: 21-36607, issue number 1

ELAB Reference	254506	254507
Customer Reference		
Sample ID		
Sample Type	SOIL	SOIL
Sample Location	S1 Soil	S2 Soil
Sample Depth (m)		
Sampling Date	14/10/2021	14/10/2021

Determinand	Codes	Units	LOD		
<b>Polyaromatic hydrocarbons</b>					
Naphthalene	M	mg/kg	0.1	0.1	0.4
Acenaphthylene	M	mg/kg	0.1	0.2	0.4
Acenaphthene	M	mg/kg	0.1	< 0.1	0.3
Fluorene	M	mg/kg	0.1	< 0.1	0.5
Phenanthrene	M	mg/kg	0.1	0.3	2.8
Anthracene	M	mg/kg	0.1	0.2	1.0
Fluoranthene	M	mg/kg	0.1	1.0	4.5
Pyrene	M	mg/kg	0.1	0.9	3.4
Benzo(a)anthracene	M	mg/kg	0.1	0.5	1.8
Chrysene	M	mg/kg	0.1	0.7	2.3
Benzo(b)fluoranthene	M	mg/kg	0.1	0.7	2.2
Benzo(k)fluoranthene	M	mg/kg	0.1	0.7	2.1
Benzo(a)pyrene	M	mg/kg	0.1	0.7	2.5
Indeno(1,2,3-cd)pyrene	M	mg/kg	0.1	0.6	2.0
Dibenzo(a,h)anthracene	M	mg/kg	0.1	< 0.1	0.2
Benzo[g,h,i]perylene	M	mg/kg	0.1	0.8	1.3
Total PAH(16)	M	mg/kg	0.4	7.4	27.9
<b>BTEX</b>					
Benzene	M	ug/kg	10	< 10.0	< 10.0
Toluene	M	ug/kg	10	< 10.0	< 10.0
Ethylbenzene	M	ug/kg	10	< 10.0	< 10.0
Xylenes	M	ug/kg	10	< 10.0	< 10.0
<b>TPH CWG</b>					
>C5-C6 Aliphatic (HS_1D_MS)	N	mg/kg	0.01	< 0.01	< 0.01
>C6-C8 Aliphatic (HS_1D_MS)	N	mg/kg	0.01	< 0.01	< 0.01
>C8-C10 Aliphatic (EH_CU_1D_Total)	N	mg/kg	1	< 1.0	< 1.0
>C10-C12 Aliphatic (EH_CU_1D_Total)	N	mg/kg	1	< 1.0	< 1.0
>C12-C16 Aliphatic (EH_CU_1D_Total)	N	mg/kg	1	< 1.0	< 1.0
>C16-C21 Aliphatic (EH_CU_1D_Total)	N	mg/kg	1	1.0	< 1.0
>C21-C35 Aliphatic (EH_CU_1D_Total)	N	mg/kg	1	< 1.0	< 1.0
>C35-C40 Aliphatic (EH_CU_1D_Total)	N	mg/kg	1	< 1.0	< 1.0
>C5-C7 Aromatic (HS_1D_MS)	N	mg/kg	0.01	< 0.01	< 0.01
>C7-C8 Aromatic (HS_1D_MS)	N	mg/kg	0.01	< 0.01	< 0.01
>C8-C10 Aromatic (EH_CU_1D_Total)	N	mg/kg	1	< 1.0	< 1.0
>C10-C12 Aromatic (EH_CU_1D_Total)	N	mg/kg	1	< 1.0	< 1.0
>C12-C16 Aromatic (EH_CU_1D_Total)	N	mg/kg	1	< 1.0	< 1.0
>C16-C21 Aromatic (EH_CU_1D_Total)	N	mg/kg	1	1.6	< 1.0
>C21-C35 Aromatic (EH_CU_1D_Total)	N	mg/kg	1	10.1	< 1.0
>C35-C40 Aromatic (EH_CU_1D_Total)	N	mg/kg	1	3.6	< 1.0
Total (>C5-C40) Ali/Aro (HS_1D_MS+EH_CU_1D_Total)	N	mg/kg	1	15.3	< 1.0



# Results Summary

Report No.: 21-36607, issue number 1

ELAB Reference	254505
Customer Reference	
Sample ID	
Sample Type	WATER
Sample Location	S1 Water
Sample Depth (m)	
Sampling Date	14/10/2021

Determinand	Codes	Units	LOD	
<b>Dissolved Metals</b>				
Arsenic	U	ug/l	5	20
Boron	N	ug/l	5	50
Cadmium	U	ug/l	1	< 1
Chromium	U	ug/l	5	12
Copper	U	ug/l	5	428
Mercury	U	ug/l	0.1	0.1
Nickel	U	ug/l	5	64
Lead	U	ug/l	1	< 1
Selenium	U	ug/l	5	12
Zinc	U	ug/l	5	< 5
<b>Miscellaneous</b>				
Biochemical Oxygen Demand (5 day)	N	mg/l	2	8
Petroleum Ether Extractable Matter	N	mg/l	2	< 2
Chemical Oxygen Demand	N	mg/l	2	220
pH	U	pH units	0.1	7.5
Turbidity	N	NTU	30	40
Suspended Solids	N	mg/l	0.1	24
Total Organic Carbon	N	mg/l	0.9	83
<b>Total Petroleum Hydrocarbons</b>				
Total TPH (C10-C40)	U	ug/l	100	523



Unit A2, Windmill Road, Ponswood Industrial Estate, St Leonards on Sea, East Sussex, TN38 9BY  
Tel: +44 (0)1424 718618, Email: info@elab-uk.co.uk, Web: www.elab-uk.co.uk

## Results Summary

Report No.: 21-36607, issue number 1

### Asbestos Results

Analytical result only applies to the sample as submitted by the client. Any comments, opinions or interpretations (marked #) in this report are outside UKAS accreditation (Accreditation No2683). They are subjective comments only which must be verified by the client.

Elab No	Depth (m)	Clients Reference	Description of Sample Matrix #	Asbestos Identification	Gravimetric Analysis Total (%)	Gravimetric Analysis by ACM Type (%)	Free Fibre Analysis (%)	Total Asbestos (%)
254506		S1 Soil	Brown Soil, Stones, Clinker, Concrete	No asbestos detected	n/t	n/t	n/t	n/t
254507		S2 Soil	Brown Soil, Stones, Clinker, Concrete	No asbestos detected	n/t	n/t	n/t	n/t

## Method Summary

Report No.: 21-36607, issue number 1

Parameter	Codes	Analysis Undertaken On	Date Tested	Method Number	Technique
<b>Soil</b>					
Free cyanide	N	As submitted sample	20/10/2021		Colorimetry
Hexavalent chromium	N	As submitted sample	20/10/2021	110	Colorimetry
pH	M	Air dried sample	20/10/2021	113	Electromeric
Acid Soluble Sulphate	U	Air dried sample	21/10/2021	115	Ion Chromatography
Aqua regia extractable metals	M	Air dried sample	20/10/2021	118	ICPMS
Phenols in solids	M	As submitted sample	20/10/2021	121	HPLC
Elemental Sulphur	M	Air dried sample	20/10/2021	122	HPLC
PAH (GC-FID)	M	As submitted sample	20/10/2021	133	GC-FID
Low range Aliphatic hydrocarbons soil	N	As submitted sample	22/10/2021	181	GC-MS
Low range Aromatic hydrocarbons soil	N	As submitted sample	22/10/2021	181	GC-MS
BTEX in solids	M	As submitted sample	22/10/2021	181A	GC-MS
Water soluble boron	N	Air dried sample	20/10/2021	202	Colorimetry
Total cyanide	M	As submitted sample	20/10/2021	204	Colorimetry
Aliphatic hydrocarbons in soil	N	As submitted sample	22/10/2021	214	GC-FID
Aliphatic/Aromatic hydrocarbons in soil	N	As submitted sample	25/10/2021	214	GC-FID
Aromatic hydrocarbons in soil	N	As submitted sample	22/10/2021	214	GC-FID
Asbestos identification	U	Air dried sample	21/10/2021	280	Microscopy
Soil organic matter	U	Air dried sample	20/10/2021	BS1377:P3	Titrimetry
<b>Water</b>					
Turbidity of waters	N		25/10/2021		Colorimetry
Dissolved metals by ICP in waters	U		20/10/2021	101	ICPMS
Dissolved organic carbon	N		21/10/2021	102	IR
pH of waters	U		20/10/2021	113	Electromeric
Solvent Extractable Matter in waters	N		25/10/2021	137	Gravimetry
BOD	N		25/10/2021	142	5 Day
COD (Chemical Oxygen Demand in waters)	N		25/10/2021	143	Colorimetry
Suspended Solids in waters	N		21/10/2021	155	Gravimetry
Total Petroleum Hydrocarbons in waters	U		21/10/2021	178	GC-FID

Tests marked N are not UKAS accredited



## Report Information

Report No.: 21-36607, issue number 1

### Key

---

U	hold UKAS accreditation
M	hold MCERTS and UKAS accreditation
N	do not currently hold UKAS accreditation
^	MCERTS accreditation not applicable for sample matrix
*	UKAS accreditation not applicable for sample matrix
S	Subcontracted to approved laboratory UKAS Accredited for the test
SM	Subcontracted to approved laboratory MCERTS/UKAS Accredited for the test
NS	Subcontracted to approved laboratory. UKAS accreditation is not applicable.
I/S	Insufficient Sample
U/S	Unsuitable sample
n/t	Not tested
<	means "less than"
>	means "greater than"

LOD LOD refers to limit of detection, except in the case of pH soils and pH waters where it means limit of discrimination.  
Soil sample results are expressed on an air dried basis (dried at < 30°C), and are uncorrected for inert material removed.  
ELAB are unable to provide an interpretation or opinion on the content of this report.  
The results relate only to the sample received.  
PCB congener results may include any coeluting PCBs  
Uncertainty of measurement for the determinands tested are available upon request  
Unless otherwise stated, sample information has been provided by the client. This may affect the validity of the results.

### Deviation Codes

- 
- |   |  |
|---|--|
| a | No date of sampling supplied                             |
| b | No time of sampling supplied (Waters Only)               |
| c | Sample not received in appropriate containers            |
| d | Sample not received in cooled condition                  |
| e | The container has been incorrectly filled                |
| f | Sample age exceeds stability time (sampling to receipt)  |
| g | Sample age exceeds stability time (sampling to analysis) |

Where a sample has a deviation code, the applicable test result may be invalid.

### Sample Retention and Disposal

---

All soil samples will be retained for a period of one month  
All water samples will be retained for 7 days following the date of the test report  
Charges may apply to extended sample storage



Freeland Horticulture Ltd  
Rosedale Nursery  
College Road  
Hextable  
Kent  
BR8 7LT

Attention: Philippa Lambourne

Our Ref: 1114-SA

16 December 2022

Dear Philippa

***Topsoil Analysis Report: Potters Bar, Hertfordshire Topsoil – December 2022***

We have completed the analysis of the topsoil sample recently taken from the above site and it has been forwarded to an approved laboratory for analysis and have the pleasure of reporting our findings. The purpose of the analysis was to determine the suitability of the topsoil for general landscaping purposes and its compliance with the current British Standard for topsoil (BS3882).

**SOIL SAMPLING & EXAMINATION**

At the time of our sampling visit the topsoil was stored in a stockpile. A series of 10 hand augered trial holes were constructed across the stockpile for the purpose of soil examination and sample collection. As the soil examination confirmed a consistent topsoil composition, the ten samples were combined together to form one composite sample for analysis purposes. The soil was described as dark brown, slightly moist and friable with a well-developed, fine to medium granular structure. The soil contained a low fraction of small stones and no deleterious materials (eg. building waste materials, glass, roots or rhizomes of pernicious weeds) or unusual odours (eg. hydrocarbons) were recorded.

**LABORATORY ANALYSIS**

The topsoil sample was submitted to a UKAS and MCERTS accredited laboratory for routine physical and chemical parameters to confirm the composition and fertility of the soil. The following parameters were determined:

- ⊕ pH & electrical conductivity values;
- ⊕ major plant nutrients (N, P, K, Mg) & organic matter content;
- ⊕ particle size distribution and stone content;
- ⊕ heavy metals & potentially toxic elements (As, Cd, Cr, Cu, Pb, Hg, Ni, Se, Zn, B);
- ⊕ sulphate, sulphur, sulphide;
- ⊕ total cyanide and total (mono) phenols;
- ⊕ speciated PAHs (US EPA16)
- ⊕ banded aromatic and aliphatic petroleum hydrocarbons (C<sub>5</sub>-C<sub>35</sub>).
- ⊕ Asbestos

The results are presented on the attached Certificate of Analysis and an interpretation of the results is given below.

---

*Phone: 01322 619161*

*Freeland horticulture Ltd. Registered in England: Rosedale Nursery, College Road, Hextable, Kent BR8 7LT  
Company Registration No: 04015968*

---

## COMMENTS

### **pH & Electrical Conductivity (salinity) Values**

The sample was alkaline in nature (pH 8.3) with a pH value that would be considered suitable for general landscaping purposes.

The electrical conductivity (salinity) value using the soil:water extract was (1208µS/cm) indicating that soluble salts are not present at levels that would be harmful to plants.

The electrical conductivity values by CaSO<sub>4</sub> extract (BS3882 requirement) fell below the maximum specified value (3300µS/cm) given in BS3882:2015.

### **Organic Matter & Nutrient Status**

The sample was rich in organic matter and all major plant nutrients. No further additions of compost or fertiliser are required, or indeed recommended, for at least the first growing season.

The C:N ratio of the sample was acceptable for general landscape purposes

### **Particle Size Distribution & Stone Content**

The sample contained 84% sand and fell into the sandy loam texture class. This particle size distribution is considered suitable for a broad range of landscape applications, including tree and shrub planting, turfing and seeding.

The sample was Virtually free from stones of 50 mm and upwards in diameter and only contained a slight fraction of smaller stones (6.3%). As such, stones will not restrict the use of the soil for landscaping purposes.

### **Potential Contaminants**

We are not aware of any specified contaminant levels set for the proposed end-use of this topsoil. This includes human health, environmental protection and metals considered toxic to plants. In the absence of any site-specific assessment criteria, the concentrations that affect human health have been compared with the 'residential with homegrown produce' land use in the Suitable For Use Levels presented in 'The LQM/CIEH S4UIs' for Human Health Risk Assessment (2015) and DEFRA SP1010: 'Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document (2014)'.  
Freeland 01322 619161

Of the potential contaminants determined, none was found at levels that would exceed their respective guideline values.

## CONCLUSION

The purpose of the analysis was to determine the suitability of the topsoil for general landscaping purposes. From the soil examination and laboratory analysis, the soil is described as an alkaline, non-saline, sandy loam. The organic matter and nutrient levels are acceptable, and no significant contamination was found with respect to the parameters determined. This soil would adhere to the current BS3882 specification for 'multipurpose grade'.

To conclude, based on our findings, the topsoil would be considered well-suited to general landscaping purposes provided the physical condition of the soil is maintained.

---

We hope this report meets with your approval and provides the necessary information. Please do not hesitate to contact the undersigned if you have any queries or comments.

George Longmuir MSc Soil Sci. M.I Soil Sci.



Client	Freeland Horticulture Ltd
Job Name	Topsoil Analysis
Site	Potters Bar, Hertfordshire
Month/Year	December 22
Our Ref	1114-SA
Date	16 December 2022

Composite sample

**pH Value & Salinity**

pH value (1:2.5 soil/water ext)	units	8.3
Electrical Conductivity (1:2.5 soil/water ext)	µS/cm	1208
Electrical Conductivity (1:2.5 soil/CaSO4 ext)	µS/cm	3026
Neutralising Value (CaCO <sub>3</sub> equivalent)	%	1.8

**Organic Matter & Nutrient Status**

Organic Matter (LOI)	%	6.3
Organic Carbon (Derived)	%	3.7
Total Nitrogen	%	0.273
Carbon:Nitrogen Ratio	:1	13.4
Available Phosphorus	mg/l	50.0
Available Potassium	mg/l	1303
Available Magnesium	mg/l	136

**Particle Size Analysis & Stones**

Clay (<0.002mm)	%	7
Silt (0.063-0.002mm)	%	9
Sand (2.0-0.063mm)	%	84
Texture Class	UK Class	Sandy Loam

Stones 2-20mm	% by DW	6.3
Stones 20-50mm	% by DW	0.6
Stones >50mm	% by DW	0.0

**Potential Contaminants**

Total Arsenic (As)	mg/kg	11.8
Total Cadmium (Cd)	mg/kg	0.20
Total Chromium (Cr)	mg/kg	27.3
Hexavalent Chromium (CR <sup>VI</sup> )	mg/kg	1.8
Total Copper (Cu)	mg/kg	16.3
Total Lead (Pb)	mg/kg	17.9
Total Mercury (Hg)	mg/kg	<0.2
Total Nickel (Ni)	mg/kg	20.0
Total Selenium (Se)	mg/kg	0.27
Total Zinc (Zn)	mg/kg	73.3
Total Beryllium (Be)	mg/kg	<1
Total Barium (Ba)	mg/kg	34.9
Total Vanadium (V)	mg/kg	32.0
Hot Water Soluble Boron (B)	mg/kg	1.4
Total Cyanide (CN)	mg/kg	<1
Elemental Sulphur (S)	mg/kg	<5
Easily Liberated Sulphide (S <sup>2-</sup> )	mg/kg	<1
Water Soluble Sulphate (SO <sub>4</sub> <sup>2-</sup> )	mg/l	139
Total Phenols Index	mg/kg	<1
Asbestos Screen	-	N.D.

Client	Freeland Horticulture Ltd
Job Name	Topsoil Analysis
Site	Potters Bar, Hertfordshire
Month/Year	December 22
Our Ref	1114-SA
Date	16 December 2022

**Polyaromatic Hydrocarbons**

Naphthalene	mg/kg	<0.05
Acenaphthylene	mg/kg	<0.05
Acenaphthene	mg/kg	<0.05
Fluorene	mg/kg	<0.05
Phenanthrene	mg/kg	<0.1
Anthracene	mg/kg	<0.05
Fluoranthene	mg/kg	0.4
Pyrene	mg/kg	0.4
Benzo[a]anthracene	mg/kg	0.4
Chrysene	mg/kg	0.4
Benzo[b]fluoranthene	mg/kg	0.4
Benzo[k]fluoranthene	mg/kg	0.3
Benzo[a]pyrene	mg/kg	0.4
Indeno[1,2,3-cd]pyrene	mg/kg	0.4
Dibenzo[a,h]anthracene	mg/kg	0.4
Benzo[g,h,i]perylene	mg/kg	0.4
Total PAHs sum US EPA 16	mg/kg	4.0

**Banded Petroleum Hydrocarbons**

Aliphatic TPH >C <sub>5</sub> -C <sub>6</sub>	mg/kg	<0.05
Aliphatic TPH >C <sub>6</sub> -C <sub>8</sub>	mg/kg	<0.05
Aliphatic TPH >C <sub>8</sub> -C <sub>10</sub>	mg/kg	<0.05
Aliphatic TPH >C <sub>10</sub> -C <sub>12</sub>	mg/kg	0
Aliphatic TPH >C <sub>12</sub> -C <sub>16</sub>	mg/kg	<10
Aliphatic TPH >C <sub>16</sub> -C <sub>21</sub>	mg/kg	<10
Aliphatic TPH >C <sub>21</sub> -C <sub>35</sub>	mg/kg	26.0
Aliphatic TPH >C <sub>35</sub> -C <sub>44</sub>	mg/kg	<12

Aromatic TPH >C <sub>5</sub> -C <sub>7</sub>	mg/kg	<0.05
Aromatic TPH >C <sub>7</sub> -C <sub>8</sub>	mg/kg	<0.05
Aromatic TPH >C <sub>8</sub> -C <sub>10</sub>	mg/kg	<0.05
Aromatic TPH >C <sub>10</sub> -C <sub>12</sub>	mg/kg	<10
Aromatic TPH >C <sub>12</sub> -C <sub>16</sub>	mg/kg	<10
Aromatic TPH >C <sub>16</sub> -C <sub>21</sub>	mg/kg	<10
Aromatic TPH >C <sub>21</sub> -C <sub>35</sub>	mg/kg	35.0
Aromatic TPH >C <sub>35</sub> -C <sub>44</sub>	mg/kg	20.0

Total Petroleum Hydrocarbons (C <sub>5</sub> -C <sub>44</sub> )	mg/kg	81.0
---	-------	------

**BTEX**

Benzene	mg/kg	<0.02
Toluene	mg/kg	<0.2
Ethyl Benzene	mg/kg	<0.04
m- & p- Xylene	mg/kg	<0.2
o-Xylene	mg/kg	<0.1

Chain of Custody requires a Freeland Horticulture Delivery Ticket-01322 619161



## Certificate of Analysis

**Client:** PHILIPPA LAMBOURNE  
**(G281)** FREELAND HORTICULTURE LTD  
 ROSEDALE NURSERY  
 COLLEGE ROAD  
 HEXTABLE  
 KENT BR8 7LT

**Originator:** PB SUBSOIL  
 SOIL

**Lab ID:** 58366 - 518730  
**Sample ID:** PB SUBSOIL A  
**Fresh Sample Weight:** 1551 (g)

**Date Received:** 05/07/2021  
**Date Reported:** 12/07/2021

### BS 8601 : 2013 SPECIFICATION FOR SUBSOIL Multipurpose Grade

		Unit	Result	Compliant with range (Y/N)		
				Multi-P	Acid	Calc
<b>Texture:</b>	Clay	% w/w	9			
	Silt	% w/w	5			
	Sand	% w/w	86			
	Textural Class		Loamy Sand			
				<i>See area of permitted soil textural classes in Fig. 1.</i>		
<b>Mass Loss on Ignition:</b>		% w/w	0.8	Y	Y	Y
<b>Coarse</b>	>2 mm	% w/w	17.0	Y	Y	Y
<b>Fragment</b>	>20 mm	% w/w	1.9	Y	Y	Y
<b>Content:</b>	>75 mm	% w/w	0.0	Y	Y	Y
<b>Soil pH:</b>			8.1	Y	N	Y
<b>Carbonate:</b>		% w/w	5.5			Y
<b>Exchangeable Sodium Percentage:</b>		%	1.0	Y	Y	Y
<b>Phytotoxic</b>	Total Zinc	mg/kg	80.3	Y	Y	Y
<b>Contaminants:</b>	Total Copper	mg/kg	8.2	Y	Y	Y
	Total Nickel	mg/kg	17.8	Y	Y	Y
<b>Visible</b>	> 2mm	% w/w	0.00	Y	Y	Y
	<b>Contaminants:</b>	Plastics	% w/w	0.00	Y	Y
Sharps		% w/w	0.00	Y	Y	Y
Weight of Sharps		g	0.0			
<b>Available</b>	Phosphorus	mg/l	26.2 (3)*			
<b>Plant</b>	Potassium	mg/l	39.0 (0)*			
<b>Nutrients:</b>	Magnesium	mg/l	44.5 (1)*			
<b>Additional</b>	Available Sodium	mg/l	19.5			
	Available Calcium	mg/l	1555.0			
	Conductivity	uS/cm	2148			
	Conductivity CaSO4 Adj.	uS/cm	188			
<b>Compliance:</b>				Y	N	Y

Results are expressed on a dry matter basis.

\* Soil indices from RB209

**Released by:**

*Myles Nicholson*

**Date:** 12/07/2021

**DECLARATION:**

I certify that this sample has been analysed by NRM Ltd. in accordance with BS 8601 Specification for Subsoil (2013).

**NRM** Coopers Bridge, Braziers Lane, Bracknell, Berkshire RG42 6NS

**Tel:** +44 (0) 1344 886338 **Fax:** +44 (0) 1344 890972 **Email:** enquiries@nrm.uk.com **www:** nrm.uk.com



# Analytical Report

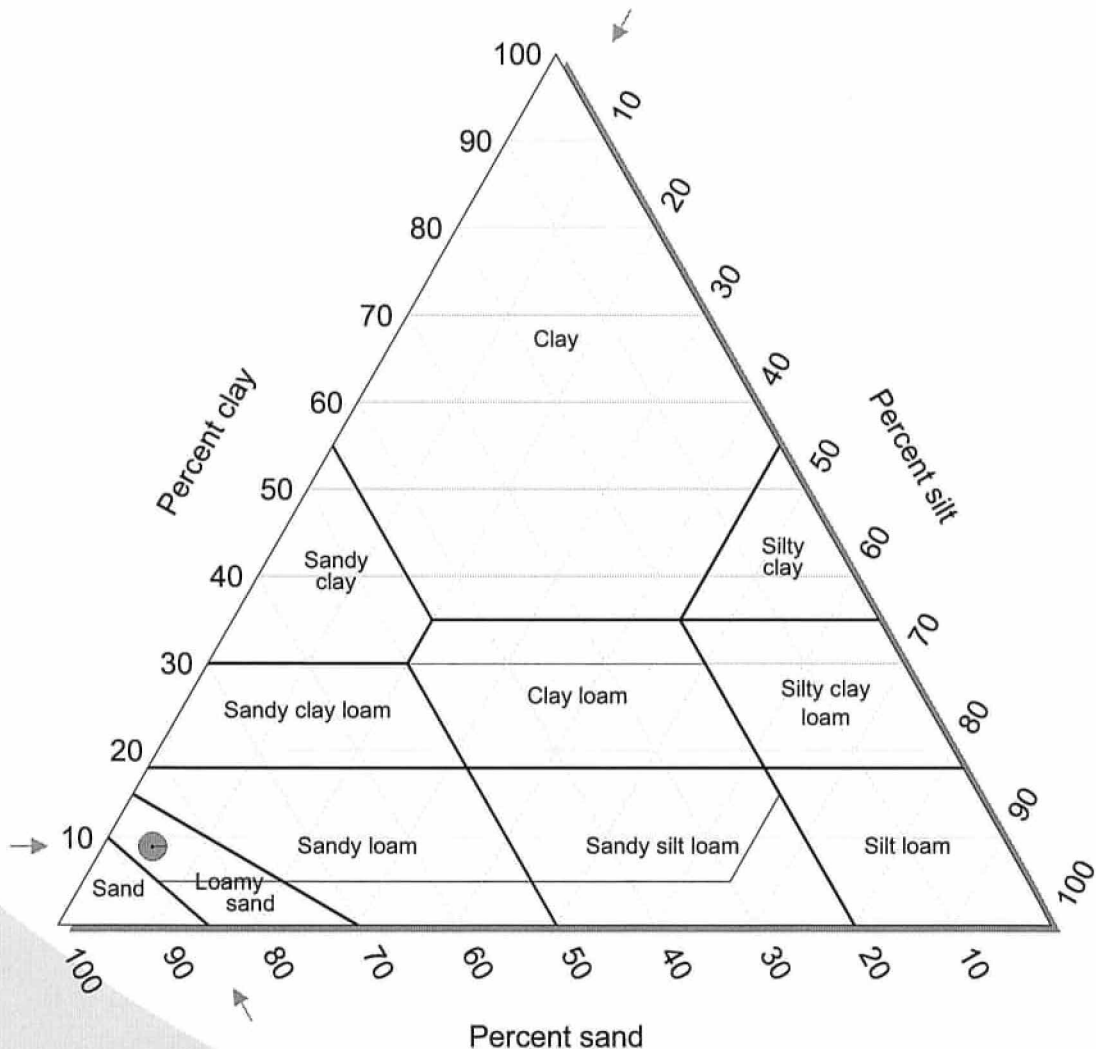
**Client:** PHILIPPA LAMBOURNE  
**(G281)** FREELAND HORTICULTURE LTD  
ROSEDALE NURSERY  
COLLEGE ROAD  
HEXTABLE  
KENT BR8 7LT

**Originator:** PB SUBSOIL  
SOIL

**Lab ID:** 58366 - 518730  
**Sample ID:** PB SUBSOIL A  
**Fresh Sample Weight:** 1551 (g)

**Date Received:** 05/07/2021  
**Date Reported:** 12/07/2021

**Fig. 1. Textural Class: Loamy Sand (compliant)**



**Key**

Area within which texture of subsoil is required to fall.

**NRM** Coopers Bridge, Braziers Lane, Bracknell, Berkshire RG42 6NS  
**Tel:** +44 (0) 1344 886338 **Fax:** +44 (0) 1344 890972 **Email:** enquiries@nrm.uk.com **www:** nrm.uk.com

# Appendix I - JNP Group Chemical Validation Testing Results





**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

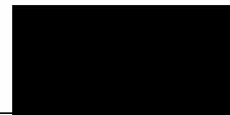
**t:** 01923 225404  
**f:** 01923 237404  
**e:** reception@i2analytical.com

**e:** charles.wake@jnpgroup.co.uk

## **Analytical Report Number : 21-24982**

<b>Project / Site name:</b>	Sunninghill Gasworks	<b>Samples received on:</b>	24/11/2021
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	24/11/2021
<b>Your order number:</b>	G1163	<b>Analysis completed by:</b>	03/12/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	03/12/2021
<b>Samples Analysed:</b>	6 water samples		

**Signed:**



Joanna Wawrzeczko  
Technical Reviewer (Reporting Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 21-24982  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number			2093943	2093944	2093945	2093946	2093947
Sample Reference			PRB117	BH203	BH303A	BH304	BH305A
Sample Number			None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)			None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled			24/11/2021	24/11/2021	24/11/2021	24/11/2021	24/11/2021
Time Taken			None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)							

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	340000**	8100	39000	68000	85000
--------------------------	------	----	-----------	----------	------	-------	-------	-------

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	13	12	12	160	1200
----------------------------	------	----	-----------	----	----	----	-----	------

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	86.9	790*
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	1.24	6.45
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	0.53	4.76
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	0.43	3.91
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	2.27
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	0.54
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	0.70
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	0.61
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16	89.1	809
-------------------	------	------	-----------	--------	--------	--------	------	-----



Analytical Report Number: 21-24982  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2093943	2093944	2093945	2093946	2093947
Sample Reference	PRB117	BH203	BH303A	BH304	BH305A
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	24/11/2021	24/11/2021	24/11/2021	24/11/2021	24/11/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

**Monoaromatics & Oxygenates**

Compound	µg/l	1	ISO 17025	< 1.0	< 1.0	7.7	311	960
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	7.7	311	960
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	19.4	170
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	13.2	125
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	13.0	351
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	11.5	243
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

**Petroleum Hydrocarbons**

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	7.7	310	960
TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	7.7	310	960
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	19	170
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	41	880
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	87	790
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	16
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	460	2800

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

\*Over range data, sample was diluted and results are estimated from an extrapolated calibration. Results should be interpreted with care.

\*\* Result was reported from high dilution and should be interpreted with care





Analytical Report Number: 21-24982  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2093948			
Sample Reference	BH307A			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	24/11/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	400
--------------------------	------	----	-----------	-----

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	16
----------------------------	------	----	-----------	----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	4.78
Acenaphthylene	µg/l	0.01	ISO 17025	1.50
Acenaphthene	µg/l	0.01	ISO 17025	1.28
Fluorene	µg/l	0.01	ISO 17025	2.19
Phenanthrene	µg/l	0.01	ISO 17025	4.00
Anthracene	µg/l	0.01	ISO 17025	1.21
Fluoranthene	µg/l	0.01	ISO 17025	2.58
Pyrene	µg/l	0.01	ISO 17025	2.08
Benzo(a)anthracene	µg/l	0.01	ISO 17025	0.51
Chrysene	µg/l	0.01	ISO 17025	0.44
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	0.46
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	0.16
Benzo(a)pyrene	µg/l	0.01	ISO 17025	0.35
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	21.5
-------------------	------	------	-----------	------



Analytical Report Number: 21-24982  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2093948			
Sample Reference	BH307A			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	24/11/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

**Monoaromatics & Oxygenates**

Benzene	µg/l	1	ISO 17025	< 1.0
Toluene	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
o-xylene	µg/l	1	ISO 17025	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0

**Petroleum Hydrocarbons**

TPH-CWG - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35) HS+EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7 HS_1D_AR	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C7 - C8 HS_1D_AR	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C8 - C10 HS_1D_AR	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C10 - C12 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C12 - C16 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C16 - C21 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	11
TPH-CWG - Aromatic >C21 - C35 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aromatic (C5 - C35) HS+EH_1D_AR_#1_#2_MS	µg/l	10	NONE	11

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

\*Over range data, sample was diluted and results are estimated from an extrapolated calibration. Results should be interpreted with care.

\*\* Result was reported from high dilution and should be interpreted with care



Analytical Report Number : 21-24982  
 Project / Site name: Sunninghill Gasworks

Water matrix abbreviations:  
 Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



Charles Wake  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

e: charles.wake@jnpgroup.co.uk

## Analytical Report Number : 21-28138

Project / Site name:	Sunninghill Gasworks	Samples received on:	09/12/2021
Your job number:	M41977	Samples instructed on/ Analysis started on:	09/12/2021
Your order number:	G1163	Analysis completed by:	20/12/2021
Report Issue Number:	1	Report issued on:	20/12/2021
Samples Analysed:	6 water samples		

Signed: \_\_\_\_\_

Karolina Marek  
PL Head of Reporting Team  
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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 21-28138  
Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2111040	2111041	2111042	2111043	2111044
Sample Reference	PRB117	BH203	BH303A	BH304	BH305A
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	320000*	9000	36000	620	110000
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	410000*	12000	46000	790	140000

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	180	760
----------------------------	------	----	-----------	------	------	------	-----	-----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	5.75	< 0.01	90.1	760
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	0.55	< 0.01	1.18	12.5
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	0.24	< 0.01	0.46	9.05
Fluorene	µg/l	0.01	ISO 17025	< 0.01	0.17	< 0.01	0.37	6.19
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	5.17
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	1.16
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	2.04
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	1.75
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	1.15
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	0.87
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	1.22
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	0.41
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	1.00
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	0.42
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	0.29

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	6.71	< 0.16	92.1	803
-------------------	------	------	-----------	--------	------	--------	------	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	382	1070
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	25.3	200
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	16.1	160
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	18.0	421
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	14.1	279
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-28138  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2111040	2111041	2111042	2111043	2111044
Sample Reference	PRB117	BH203	BH303A	BH304	BH305A
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	09/12/2021	09/12/2021	09/12/2021	09/12/2021	09/12/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 <sub>HS,1D,AL</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8 <sub>HS,1D,AL</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10 <sub>HS,1D,AL</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 <sub>EH,1D,AL,#1,#2,MS</sub>	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 <sub>EH,1D,AL,#1,#2,MS</sub>	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 <sub>EH,1D,AL,#1,#2,MS</sub>	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 <sub>EH,1D,AL,#1,#2,MS</sub>	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) <sub>HS+EH,1D,AL,#1,#2,MS</sub>	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7 <sub>HS,1D,AR</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	1100
TPH-CWG - Aromatic >C7 - C8 <sub>HS,1D,AR</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	200
TPH-CWG - Aromatic >C8 - C10 <sub>HS,1D,AR</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	1000
TPH-CWG - Aromatic >C10 - C12 <sub>EH,1D,AR,#1,#2,MS</sub>	µg/l	10	NONE	< 10	< 10	< 10	160	1200
TPH-CWG - Aromatic >C12 - C16 <sub>EH,1D,AR,#1,#2,MS</sub>	µg/l	10	NONE	< 10	95	< 10	430	690
TPH-CWG - Aromatic >C16 - C21 <sub>EH,1D,AR,#1,#2,MS</sub>	µg/l	10	NONE	< 10	50	< 10	170	98
TPH-CWG - Aromatic >C21 - C35 <sub>EH,1D,AR,#1,#2,MS</sub>	µg/l	10	NONE	< 10	< 10	< 10	18	< 10
TPH-CWG - Aromatic (C5 - C35) <sub>HS+EH,1D,AR,#1,#2,MS</sub>	µg/l	10	NONE	< 10	150	< 10	780	4300

U/S = Unsuitable Sample I/S = Insufficient Sample  
 \* Result was reported from high dilution and should be interpreted with care



Analytical Report Number: 21-28138  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2111045			
Sample Reference	BH307A			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	09/12/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	630
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	820

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	10
----------------------------	------	----	-----------	----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	4.20
Acenaphthylene	µg/l	0.01	ISO 17025	1.30
Acenaphthene	µg/l	0.01	ISO 17025	0.82
Fluorene	µg/l	0.01	ISO 17025	1.09
Phenanthrene	µg/l	0.01	ISO 17025	4.00
Anthracene	µg/l	0.01	ISO 17025	1.37
Fluoranthene	µg/l	0.01	ISO 17025	8.24
Pyrene	µg/l	0.01	ISO 17025	7.17
Benzo(a)anthracene	µg/l	0.01	ISO 17025	3.65
Chrysene	µg/l	0.01	ISO 17025	3.38
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	4.26
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	1.68
Benzo(a)pyrene	µg/l	0.01	ISO 17025	3.46
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	1.49
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	0.47
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	1.48

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	48.1
-------------------	------	------	-----------	------

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0
Toluene	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
o-xylene	µg/l	1	ISO 17025	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0



Analytical Report Number: 21-28138  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2111045			
Sample Reference	BH307A			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	09/12/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35) <sub>HS+EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C7 - C8 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C8 - C10 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C10 - C12 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	10
TPH-CWG - Aromatic >C12 - C16 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	29
TPH-CWG - Aromatic >C16 - C21 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	45
TPH-CWG - Aromatic >C21 - C35 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	25
TPH-CWG - Aromatic (C5 - C35) <sub>HS+EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	110

U/S = Unsuitable Sample I/S = Insufficient Sample  
 \* Result was reported from high dilution and should be interpreted with care





Analytical Report Number : 21-28138  
 Project / Site name: Sunninghill Gasworks

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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	L1028-PL	W	ISO 17025
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L0738-PL	W	ISO 17025
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



JNP corrected borehole reference on this report - BH201 is actually BH301.



**Ed Tainsh**

JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

e: ed.tainsh@jnpgroup.co.uk

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 : 21-82513**

<b>Project / Site name:</b>	Bridge Road, Ascot	<b>Samples received on:</b>	21/06/2021
<b>Your job number:</b>	M41977 PO G1117	<b>Samples instructed on/ Analysis started on:</b>	21/06/2021
<b>Your order number:</b>	G1117	<b>Analysis completed by:</b>	30/06/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	30/06/2021
<b>Samples Analysed:</b>	5 water samples		

**Signed:**

Will Fardon  
Technical Reviewer (CS Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 21-82513  
 Project / Site name: Bridge Road, Ascot

Your Order No: G1117

Lab Sample Number	1912399	1912400	1912401	1912402	1912403
Sample Reference	BH201BH301	BH304	BH305	PRB108	PRB110
Sample Number	W1	W1	W1	W1	W1
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	18/06/2021	18/06/2021	18/06/2021	18/06/2021	18/06/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

General Inorganics

Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	3300	1300	1100	3800	3200

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	230	< 10	< 10	360	360

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	390	< 0.01	< 0.01	249	376
Acenaphthylene	µg/l	0.01	ISO 17025	20.8	< 0.01	< 0.01	17.7	31.8
Acenaphthene	µg/l	0.01	ISO 17025	9.53	< 0.01	< 0.01	8.45	15.0
Fluorene	µg/l	0.01	ISO 17025	13.2	< 0.01	< 0.01	12.2	19.8
Phenanthrene	µg/l	0.01	ISO 17025	3.12	< 0.01	< 0.01	2.62	1.98
Anthracene	µg/l	0.01	ISO 17025	3.25	< 0.01	< 0.01	2.87	4.26
Fluoranthene	µg/l	0.01	ISO 17025	2.87	< 0.01	< 0.01	4.78	6.12
Pyrene	µg/l	0.01	ISO 17025	1.91	< 0.01	< 0.01	3.39	4.25
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	445	< 0.16	< 0.16	301	460

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	378	< 1.0	< 1.0	233	208
Toluene	µg/l	1	ISO 17025	357	< 1.0	< 1.0	213	195
Ethylbenzene	µg/l	1	ISO 17025	66.0	< 1.0	< 1.0	39.6	35.9
p & m-xylene	µg/l	1	ISO 17025	248	< 1.0	< 1.0	148	130
o-xylene	µg/l	1	ISO 17025	105	< 1.0	< 1.0	69.6	60.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-82513  
 Project / Site name: Bridge Road, Ascot

Your Order No: G1117

Lab Sample Number	1912399				1912400	1912401	1912402	1912403
Sample Reference	BH201				BH304	BH305	PRB108	PRB110
Sample Number	W1				W1	W1	W1	W1
Depth (m)	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	18/06/2021				18/06/2021	18/06/2021	18/06/2021	18/06/2021
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)								

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	380	< 1.0	< 1.0	230	210
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	360	< 1.0	< 1.0	210	200
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	500	< 1.0	< 1.0	300	270
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	400	< 10	< 10	270	480
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	330	< 10	< 10	330	650
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	120	< 10	< 10	260	480
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	240
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	2100	< 10	< 10	1600	2500

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



Analytical Report Number : 21-82513  
 Project / Site name: Bridge Road, Ascot

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

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

**e:** charles.wake@jnpgroup.co.uk

## **Analytical Report Number : 21-85434**

<b>Project / Site name:</b>	Bridge Road	<b>Samples received on:</b>	02/07/2021
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	07/07/2021
<b>Your order number:</b>	G1117	<b>Analysis completed by:</b>	15/07/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	15/07/2021
<b>Samples Analysed:</b>	9 water samples		

**Signed** 

Karolina Marek  
PL Head of Reporting Team  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 21-85434  
Project / Site name: Bridge Road

Your Order No: G1117

Lab Sample Number	1929653				1929654	1929655	1929656	1929657
Sample Reference	PRB104				PRB108	PRB110	PRB117	MWA1
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.60				1.04	0.45	0.80	2.50
Date Sampled	02/07/2021				02/07/2021	02/07/2021	02/07/2021	02/07/2021
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)								

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	370	1800	3100	41000	510
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	480	2300	4000	52000	660

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	16	26	110	39	< 10
----------------------------	------	----	-----------	----	----	-----	----	------

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	335	1.01	8.08	390	0.82
Acenaphthylene	µg/l	0.01	ISO 17025	43.2	8.53	11.8	36.6	0.97
Acenaphthene	µg/l	0.01	ISO 17025	37.8	12.1	5.99	39.5	0.90
Fluorene	µg/l	0.01	ISO 17025	36.4	3.94	6.14	26.0	1.21
Phenanthrene	µg/l	0.01	ISO 17025	68.3	1.47	4.15	21.3	3.60
Anthracene	µg/l	0.01	ISO 17025	22.3	2.05	3.76	5.03	1.65
Fluoranthene	µg/l	0.01	ISO 17025	34.5	8.82	8.23	21.6	9.16
Pyrene	µg/l	0.01	ISO 17025	33.8	6.69	6.92	20.0	10.5
Benzo(a)anthracene	µg/l	0.01	ISO 17025	11.7	1.61	1.70	7.57	4.93
Chrysene	µg/l	0.01	ISO 17025	9.56	1.13	1.44	5.52	4.36
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	8.47	1.35	1.50	7.88	9.09
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	2.46	0.58	0.56	2.31	3.51
Benzo(a)pyrene	µg/l	0.01	ISO 17025	6.54	1.11	1.05	5.25	7.49
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	2.49	0.49	0.56	2.25	4.60
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	0.69	< 0.01	< 0.01	0.60	1.14
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	2.64	0.59	0.62	2.33	5.42

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	656	51.5	62.5	594	69.4
-------------------	------	------	-----------	-----	------	------	-----	------

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	7.6	5.8	< 1.0	95.2	< 1.0
Toluene	µg/l	1	ISO 17025	34.7	< 1.0	< 1.0	62.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	23.6	< 1.0	< 1.0	37.8	< 1.0
p & m-xylene	µg/l	1	ISO 17025	106	5.1	6.1	66.4	< 1.0
o-xylene	µg/l	1	ISO 17025	114	6.5	4.9	35.7	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-85434  
 Project / Site name: Bridge Road

Your Order No: G1117

Lab Sample Number	1929653	1929654	1929655	1929656	1929657
Sample Reference	PRB104	PRB108	PRB110	PRB117	MWA1
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	1.60	1.04	0.45	0.80	2.50
Date Sampled	02/07/2021	02/07/2021	02/07/2021	02/07/2021	02/07/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	330	< 10	< 10	430	160
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	3500	< 10	< 10	3400	390
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	3700	< 10	< 10	3900	340
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	2700	< 10	< 10	4300	300
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	10000	< 10	< 10	12000	1200

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	7.6	5.8	< 1.0	95	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	35	< 1.0	< 1.0	62	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	530	14	17	160	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	890	< 10	< 10	880	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	3300	25	24	110	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	2400	20	24	70	25
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	34	40
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	7200	65	65	1400	65

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





Analytical Report Number: 21-85434  
Project / Site name: Bridge Road

Your Order No: G1117

Lab Sample Number	1929658	1929659	1929660	1929661
Sample Reference	BH202B	BH203	BH306	BH307
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.25	0.25	9.25	1.32
Date Sampled	02/07/2021	02/07/2021	02/07/2021	02/07/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)				

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	2500	1900	17000	1400
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	3200	2500	22000	1800

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	51	79	35	18

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	99.9	30.2	2.29	1.11
Acenaphthylene	µg/l	0.01	ISO 17025	13.2	5.73	8.78	0.22
Acenaphthene	µg/l	0.01	ISO 17025	3.97	9.64	3.92	< 0.01
Fluorene	µg/l	0.01	ISO 17025	3.94	13.7	2.65	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	2.95	26.6	0.14	0.22
Anthracene	µg/l	0.01	ISO 17025	3.09	8.69	0.32	0.18
Fluoranthene	µg/l	0.01	ISO 17025	15.1	30.3	0.60	0.29
Pyrene	µg/l	0.01	ISO 17025	15.8	26.7	0.79	0.97
Benzo(a)anthracene	µg/l	0.01	ISO 17025	6.43	11.6	0.49	< 0.01
Chrysene	µg/l	0.01	ISO 17025	5.86	8.64	0.47	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	9.55	12.2	0.50	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	3.89	4.03	0.15	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	7.35	10.5	0.64	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	5.01	4.63	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	1.18	1.59	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	6.12	4.83	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	203	210	21.7	2.99

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	37.4	21.1	22.5	5.0
Toluene	µg/l	1	ISO 17025	37.0	14.4	326	72.2
Ethylbenzene	µg/l	1	ISO 17025	4.6	< 1.0	< 1.0	33.9
p & m-xylene	µg/l	1	ISO 17025	16.6	5.9	328	124
o-xylene	µg/l	1	ISO 17025	10.5	4.0	315	175
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-85434  
 Project / Site name: Bridge Road

Your Order No: G1117

Lab Sample Number	1929658	1929659	1929660	1929661
Sample Reference	BH202B	BH203	BH306	BH307
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.25	0.25	9.25	1.32
Date Sampled	02/07/2021	02/07/2021	02/07/2021	02/07/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)				

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	210	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	3300	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	3900	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	3400	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	11000	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	37	21	23	5.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	37	14	330	72
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	38	9.9	950	440
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	100	31	100	10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	22	360	140	60
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	27	430	30	20
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	46	60	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	310	920	1600	600

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



Analytical Report Number : 21-85434  
Project / Site name: Bridge Road

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

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

**e:** charles.wake@jnpgroup.co.uk

## **Analytical Report Number : 21-85906**

<b>Project / Site name:</b>	Bridge Road	<b>Samples received on:</b>	08/07/2021
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	08/07/2021
<b>Your order number:</b>	G1117	<b>Analysis completed by:</b>	15/07/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	15/07/2021
<b>Samples Analysed:</b>	3 water samples		

**Signed:**

Joanna Wawrzeczko  
Technical Reviewer (Reporting Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 21-85906  
Project / Site name: Bridge Road

Your Order No: G1117

Lab Sample Number	1932475	1932476	1932477
Sample Reference	BH201A	BH301	BH304
Sample Number	None Supplied	None Supplied	None Supplied
Depth (m)	8.95	2.72	2.50
Date Sampled	05/07/2021	05/07/2021	05/07/2021
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)			

General Inorganics

Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	62000	9700	45000
----------------------------	------	----	-----------	-------	------	-------

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	380	< 10	55
----------------------------	------	----	-----------	-----	------	----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	18.2	5.34	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	0.46	1.06	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	2.89	28.3	< 0.01
Fluorene	µg/l	0.01	ISO 17025	0.60	17.3	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	0.68	1.80	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	1.15	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	1.10	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	0.63	< 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	22.9	56.7	< 0.16
-------------------	------	------	-----------	------	------	--------

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	847	< 1.0	65.6
Toluene	µg/l	1	ISO 17025	15.2	< 1.0	7.8
Ethylbenzene	µg/l	1	ISO 17025	31.9	< 1.0	4.5
p & m-xylene	µg/l	1	ISO 17025	35.4	< 1.0	4.4
o-xylene	µg/l	1	ISO 17025	20.7	< 1.0	3.3
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-85906  
 Project / Site name: Bridge Road

Your Order No: G1117

Lab Sample Number	1932475	1932476	1932477
Sample Reference	BH201A	BH301	BH304
Sample Number	None Supplied	None Supplied	None Supplied
Depth (m)	8.95	2.72	2.50
Date Sampled	05/07/2021	05/07/2021	05/07/2021
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)			

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	850	< 1.0	66
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	15	< 1.0	7.8
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	100	< 1.0	12
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	20	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	47	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	990	47	86

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



Analytical Report Number : 21-85906  
 Project / Site name: Bridge Road

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



**Ed Tainsh**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

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

**e:** ed.tainsh@jnpgroup.co.uk

## **Analytical Report Number : 21-86101**

<b>Project / Site name:</b>	Bridge Road Ascot	<b>Samples received on:</b>	09/07/2021
<b>Your job number:</b>	M4 1977	<b>Samples instructed on/ Analysis started on:</b>	09/07/2021
<b>Your order number:</b>	G1117	<b>Analysis completed by:</b>	15/07/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	15/07/2021
<b>Samples Analysed:</b>	1 water sample		

**Signed** 

Karolina Marek  
PL Head of Reporting Team  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.





Analytical Report Number: 21-86101  
 Project / Site name: Bridge Road Ascot

Your Order No: G1117

Lab Sample Number	1933377			
Sample Reference	BH303			
Sample Number	W1			
Depth (m)	None Supplied			
Date Sampled	09/07/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	130
----------------------------	------	----	-----------	-----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	37.4
Acenaphthylene	µg/l	0.01	ISO 17025	7.04
Acenaphthene	µg/l	0.01	ISO 17025	2.91
Fluorene	µg/l	0.01	ISO 17025	2.97
Phenanthrene	µg/l	0.01	ISO 17025	1.42
Anthracene	µg/l	0.01	ISO 17025	1.01
Fluoranthene	µg/l	0.01	ISO 17025	2.08
Pyrene	µg/l	0.01	ISO 17025	2.00
Benzo(a)anthracene	µg/l	0.01	ISO 17025	0.57
Chrysene	µg/l	0.01	ISO 17025	0.45
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	0.56
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	0.21
Benzo(a)pyrene	µg/l	0.01	ISO 17025	0.40
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	59.0
-------------------	------	------	-----------	------

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	7.0
Toluene	µg/l	1	ISO 17025	8.4
Ethylbenzene	µg/l	1	ISO 17025	< 1.0
p & m-xylene	µg/l	1	ISO 17025	7.7
o-xylene	µg/l	1	ISO 17025	4.9
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0



Analytical Report Number: 21-86101  
 Project / Site name: Bridge Road Ascot

Your Order No: G1117

Lab Sample Number	1933377			
Sample Reference	BH303			
Sample Number	W1			
Depth (m)	None Supplied			
Date Sampled	09/07/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10)	µg/l	10	ISO 17025	31.2
Diesel Range Organics (C10 - C25)	µg/l	10	NONE	470
TPH Oils (C25 - C40)	µg/l	10	NONE	< 10

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	7.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	8.4
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	16
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	50
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	320
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	100
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	500

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



Analytical Report Number : 21-86101  
 Project / Site name: Bridge Road Ascot

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
TPH Oils (Waters)	Determination of dichloromethane/hexane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
DRO (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE

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.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



**Ed Tainsh**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

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

**e:** ed.tainsh@jnpgroup.co.uk

## **Analytical Report Number : 21-88943**

<b>Project / Site name:</b>	Ascot Waters 2	<b>Samples received on:</b>	23/07/2021
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	23/07/2021
<b>Your order number:</b>	PO G1163	<b>Analysis completed by:</b>	03/08/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	03/08/2021
<b>Samples Analysed:</b>	11 water samples		

**Signed:** 

Joanna Wawrzeczko  
Technical Reviewer (Reporting Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 21-88943  
Project / Site name: Ascot Waters 2

Your Order No: PO G1163

Lab Sample Number	1950011	1950012	1950013	1950014	1950015
Sample Reference	BH201A	BH301	BH303	BH304	BH305
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	21/07/2021	21/07/2021	21/07/2021	21/07/2021	21/07/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

**Total Phenols**

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	41	51	28

**Speciated PAHs**

	µg/l	0.01	ISO 17025	0.88	1.18	3.22	21.3	1.43
Naphthalene	µg/l	0.01	ISO 17025	0.88	1.18	3.22	21.3	1.43
Acenaphthylene	µg/l	0.01	ISO 17025	0.34	0.44	4.83	5.59	4.41
Acenaphthene	µg/l	0.01	ISO 17025	11.1	12.6	1.68	1.78	1.83
Fluorene	µg/l	0.01	ISO 17025	6.74	5.98	1.85	1.91	2.06
Phenanthrene	µg/l	0.01	ISO 17025	0.29	0.50	1.75	1.98	1.94
Anthracene	µg/l	0.01	ISO 17025	0.45	0.40	0.39	0.41	0.46
Fluoranthene	µg/l	0.01	ISO 17025	0.61	0.59	0.28	0.33	0.34
Pyrene	µg/l	0.01	ISO 17025	0.28	0.34	0.21	0.25	0.26
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

**Total PAH**

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	20.7	22.0	14.2	33.6	12.7

**Monoaromatics & Oxygenates**

	µg/l	1	ISO 17025	< 1.0	< 1.0	14.2	14.6	16.4
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	14.2	14.6	16.4
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	4.6	4.5	4.7
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	3.0	3.0	3.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	2.4	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	3.8	3.7	4.2
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-88943  
 Project / Site name: Ascot Waters 2

Your Order No: PO G1163

Lab Sample Number	1950011	1950012	1950013	1950014	1950015
Sample Reference	BH201A	BH301	BH303	BH304	BH305
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	21/07/2021	21/07/2021	21/07/2021	21/07/2021	21/07/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10)	µg/l	10	ISO 17025	< 10.0	< 10.0	28.1	25.9	28.3
Diesel Range Organics (C10 - C25)	µg/l	10	NONE	21	22	140	170	88
TPH Oils (C25 - C40)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	14	15	16
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	4.6	4.5	4.8
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	9.3	6.7	7.2
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	71	75	13
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	18	19	62	92	71
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	18	19	160	190	110

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



Analytical Report Number: 21-88943  
Project / Site name: Ascot Waters 2

Your Order No: PO G1163

Lab Sample Number	1950016	1950017	1950018	1950019	1950020
Sample Reference	BH306	BH307A	BH203	BH202B	PRB108
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	21/07/2021	21/07/2021	21/07/2021	21/07/2021	21/07/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

**Total Phenols**

Total Phenols (monohydric)	µg/l	10	ISO 17025	36	41	710	700	51
----------------------------	------	----	-----------	----	----	-----	-----	----

**Speciated PAHs**

Naphthalene	µg/l	0.01	ISO 17025	0.46	5.87	125	193	0.50
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	18.5	24.5	17.2	1.75
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	5.39	38.0	17.1	3.28
Fluorene	µg/l	0.01	ISO 17025	< 0.01	5.14	30.8	10.1	1.68
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	1.17	22.3	5.04	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	1.08	4.58	1.02	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	1.31	28.9	4.07	1.02
Pyrene	µg/l	0.01	ISO 17025	< 0.01	1.09	28.9	3.87	0.67
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	10.8	1.24	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	9.31	1.10	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	12.2	1.26	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	4.35	0.55	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	11.1	0.88	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	3.17	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	3.22	< 0.01	< 0.01

**Total PAH**

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	0.46	39.5	357	256	8.90
-------------------	------	------	-----------	------	------	-----	-----	------

**Monoaromatics & Oxygenates**

Benzene	µg/l	1	ISO 17025	5.9	17.1	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	46.4	85.5	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	3.3	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	80.0	222	36.9	30.0	< 1.0
o-xylene	µg/l	1	ISO 17025	79.9	203	20.1	14.1	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-88943  
 Project / Site name: Ascot Waters 2

Your Order No: PO G1163

Lab Sample Number	1950016	1950017	1950018	1950019	1950020
Sample Reference	BH306	BH307A	BH203	BH202B	PRB108
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	21/07/2021	21/07/2021	21/07/2021	21/07/2021	21/07/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

Petroleum Hydrocarbons

Petroleum Range Organics (C6 - C10)	µg/l	10	ISO 17025	234	587	90.7	58.4	< 10.0
Diesel Range Organics (C10 - C25)	µg/l	10	NONE	61	810	15000	1500	11
TPH Oils (C25 - C40)	µg/l	10	NONE	< 10	< 10	2700	< 10	< 10

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	370	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	3800	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	5800	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	4900	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	15000	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	5.9	17	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	46	86	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	180	480	91	58	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	310	1100	850	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	61	500	1600	420	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	130	260	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	56	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	300	1400	3000	1600	< 10

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





Analytical Report Number: 21-88943  
 Project / Site name: Ascot Waters 2

Your Order No: PO G1163

Lab Sample Number	1950021			
Sample Reference	PRB104			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	21/07/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	37
----------------------------	------	----	-----------	----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	30.9
Acenaphthylene	µg/l	0.01	ISO 17025	6.63
Acenaphthene	µg/l	0.01	ISO 17025	2.34
Fluorene	µg/l	0.01	ISO 17025	2.79
Phenanthrene	µg/l	0.01	ISO 17025	3.03
Anthracene	µg/l	0.01	ISO 17025	0.60
Fluoranthene	µg/l	0.01	ISO 17025	0.46
Pyrene	µg/l	0.01	ISO 17025	0.33
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	47.1
-------------------	------	------	-----------	------

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	28.1
Toluene	µg/l	1	ISO 17025	7.2
Ethylbenzene	µg/l	1	ISO 17025	4.9
p & m-xylene	µg/l	1	ISO 17025	7.9
o-xylene	µg/l	1	ISO 17025	8.1
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0



Analytical Report Number: 21-88943  
 Project / Site name: Ascot Waters 2

Your Order No: PO G1163

Lab Sample Number	1950021			
Sample Reference	PRB104			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	21/07/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

**Petroleum Hydrocarbons**

Petroleum Range Organics (C6 - C10)	µg/l	10	ISO 17025	56.2
Diesel Range Organics (C10 - C25)	µg/l	10	NONE	70
TPH Oils (C25 - C40)	µg/l	10	NONE	< 10

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	28
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	7.2
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	21
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	31
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	28
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	11
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	130

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



Analytical Report Number : 21-88943  
 Project / Site name: Ascot Waters 2

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
TPH Oils (Waters)	Determination of dichloromethane/hexane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE
DRO (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS.	In-house method	L070-PL	W	NONE

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.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

**t:** 01923 225404

**f:** 01923 237404

**e:** reception@i2analytical.com

**e:** charles.wake@jnpgroup.co.uk

## **Analytical Report Number : 22-33109**

<b>Project / Site name:</b>	Sunninghill Gasworks	<b>Samples received on:</b>	14/01/2022
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	14/01/2022
<b>Your order number:</b>	G1163	<b>Analysis completed by:</b>	25/01/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	25/01/2022
<b>Samples Analysed:</b>	3 water samples		

**Signed:**



Joanna Wawrzeczko  
Technical Reviewer (Reporting Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 22-33109  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2137348	2137349	2137350
Sample Reference	PRB117	BH203	BH303A
Sample Number	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied
Date Sampled	14/01/2022	14/01/2022	14/01/2022
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)			

General Inorganics

	µg/l	15	ISO 17025	220000	3900	30000
Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	220000	3900	30000
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	290000	5000	38000

Total Phenols

	µg/l	10	ISO 17025	11	< 10	< 10
Total Phenols (monohydric)	µg/l	10	ISO 17025	11	< 10	< 10

Speciated PAHs

	µg/l	0.01	ISO 17025	< 0.01	3.67	< 0.01
Naphthalene	µg/l	0.01	ISO 17025	< 0.01	3.67	< 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

	µg/l	0.16	ISO 17025	< 0.16	3.67	< 0.16
Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	3.67	< 0.16

Monoaromatics & Oxygenates

	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
Toluene	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
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0



Analytical Report Number: 22-33109  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2137348	2137349	2137350
Sample Reference	PRB117	BH203	BH303A
Sample Number	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied
Date Sampled	14/01/2022	14/01/2022	14/01/2022
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)			

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) <sub>HS+EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) <sub>HS+EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10

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



Analytical Report Number : 22-33109  
 Project / Site name: Sunninghill Gasworks

Water matrix abbreviations:  
 Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

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

**e:** charles.wake@jnpgroup.co.uk

## **Analytical Report Number : 22-33109**

<b>Project / Site name:</b>	Sunninghill Gasworks	<b>Samples received on:</b>	14/01/2022
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	14/01/2022
<b>Your order number:</b>	G1163	<b>Analysis completed by:</b>	25/01/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	25/01/2022
<b>Samples Analysed:</b>	3 water samples		

**Signed:** 

Joanna Wawrzeczko  
Technical Reviewer (Reporting Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.





Analytical Report Number: 22-33109  
Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number				2137348	2137349	2137350
Sample Reference				PRB117	BH203	BH303A
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				14/01/2022	14/01/2022	14/01/2022
Time Taken				None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)						

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	220000	3900	30000
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	290000	5000	38000

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	11	< 10	< 10
----------------------------	------	----	-----------	----	------	------

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	3.67	< 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	3.67	< 0.16
-------------------	------	------	-----------	--------	------	--------

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
Toluene	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
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0



Analytical Report Number: 22-33109  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2137348	2137349	2137350
Sample Reference	PRB117	BH203	BH303A
Sample Number	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied
Date Sampled	14/01/2022	14/01/2022	14/01/2022
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)			

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) <sub>HS+EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) <sub>HS+EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	< 10	< 10	< 10

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



Analytical Report Number : 22-33109  
 Project / Site name: Sunninghill Gasworks

Water matrix abbreviations:  
 Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



**Charles Wake**  
JNP Midlands LLP  
Portobello House  
Portobello Way  
Warwick  
CV34 5GJ

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

**t:** 01923 225404  
**f:** 01923 237404

**e:** reception@i2analytical.com

**e:** Charles.Wake@jnpgroup.co.uk

## **Analytical Report Number : 22-57357**

<b>Project / Site name:</b>	Bridge Road, Ascot	<b>Samples received on:</b>	10/05/2022
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	10/05/2022
<b>Your order number:</b>	PO G1555	<b>Analysis completed by:</b>	17/05/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	18/05/2022
<b>Samples Analysed:</b>	1 water sample		

**Signed:** \_\_\_\_\_

Anna Goc  
Junior Reporting Specialist  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 22-57357  
 Project / Site name: Bridge Road, Ascot

Your Order No: PO G1555

Lab Sample Number	2269966			
Sample Reference	BH305B			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	10/05/2022			
Time Taken	1230			
Analytical Parameter (Water Analysis)				

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	489
-------------	------	------	-----------	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	78
Toluene	µg/l	1	ISO 17025	24.8
Ethylbenzene	µg/l	1	ISO 17025	18.1
p & m-xylene	µg/l	1	ISO 17025	45.8
o-xylene	µg/l	1	ISO 17025	27
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35) <sub>HS+EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	78
TPH-CWG - Aromatic >C7 - C8 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	25
TPH-CWG - Aromatic >C8 - C10 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	120
TPH-CWG - Aromatic >C10 - C12 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	490
TPH-CWG - Aromatic >C12 - C16 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	420
TPH-CWG - Aromatic >C16 - C21 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	580
TPH-CWG - Aromatic >C21 - C35 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	170
TPH-CWG - Aromatic (C5 - C35) <sub>HS+EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	1900

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



Analytical Report Number : 22-57357  
 Project / Site name: Bridge Road, Ascot

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
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

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 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



**Charles Wake**  
JNP Midlands LLP  
Portobello House  
Portobello Way  
Warwick  
CV34 5GJ

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

**t:** 01923 225404

**f:** 01923 237404

**e:** reception@i2analytical.com

**e:** Charles.Wake@jnpgroup.co.uk

## **Analytical Report Number : 22-60752**

<b>Project / Site name:</b>	Bridge Road, Ascot	<b>Samples received on:</b>	24/05/2022
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	24/05/2022
<b>Your order number:</b>	G1555	<b>Analysis completed by:</b>	01/06/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	01/06/2022
<b>Samples Analysed:</b>	1 water sample		

**Signed:** \_\_\_\_\_

Joanna Wawrzeczko  
Reporting Specialist  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 22-60752  
 Project / Site name: Bridge Road, Ascot

Your Order No: G1555

Lab Sample Number	2289694			
Sample Reference	BH305B			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	24/05/2022			
Time Taken	1330			
Analytical Parameter (Water Analysis)				

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	440
-------------	------	------	-----------	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	64
Toluene	µg/l	1	ISO 17025	18.5
Ethylbenzene	µg/l	1	ISO 17025	11.1
p & m-xylene	µg/l	1	ISO 17025	21.2
o-xylene	µg/l	1	ISO 17025	11.2
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35) <sub>HS+EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	64
TPH-CWG - Aromatic >C7 - C8 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	19
TPH-CWG - Aromatic >C8 - C10 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	58
TPH-CWG - Aromatic >C10 - C12 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	440
TPH-CWG - Aromatic >C12 - C16 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	390
TPH-CWG - Aromatic >C16 - C21 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	250
TPH-CWG - Aromatic >C21 - C35 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	40
TPH-CWG - Aromatic (C5 - C35) <sub>HS+EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	1300

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





Analytical Report Number : 22-60752  
 Project / Site name: Bridge Road, Ascot

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
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

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 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

**t:** 01923 225404

**f:** 01923 237404

**e:** reception@i2analytical.com

**e:** charles.wake@jnpqgroup.co.uk

## **Analytical Report Number : 22-63019**

<b>Project / Site name:</b>	M41997, Bridge Road, Ascot	<b>Samples received on:</b>	07/06/2022
<b>Your job number:</b>	M41997	<b>Samples instructed on/ Analysis started on:</b>	07/06/2022
<b>Your order number:</b>	PO G1555	<b>Analysis completed by:</b>	16/06/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	16/06/2022
<b>Samples Analysed:</b>	1 water sample		

**Signed:** 

Adam Fenwick  
Technical Reviewer

**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 22-63019

Project / Site name: M41997, Bridge Road, Ascot

Your Order No: PO G1555

Lab Sample Number	2303027			
Sample Reference	BH305B			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	07/06/2022			
Time Taken	1300			
Analytical Parameter (Water Analysis)				

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	4710
-------------	------	------	-----------	------

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	43.5
Toluene	µg/l	1	ISO 17025	11.5
Ethylbenzene	µg/l	1	ISO 17025	7.3
p & m-xylene	µg/l	1	ISO 17025	15.3
o-xylene	µg/l	1	ISO 17025	11
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35) HS+EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7 HS_1D_AR	µg/l	1	ISO 17025	44
TPH-CWG - Aromatic >C7 - C8 HS_1D_AR	µg/l	1	ISO 17025	12
TPH-CWG - Aromatic >C8 - C10 HS_1D_AR	µg/l	1	ISO 17025	49
TPH-CWG - Aromatic >C10 - C12 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	4700
TPH-CWG - Aromatic >C12 - C16 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	370
TPH-CWG - Aromatic >C16 - C21 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	320
TPH-CWG - Aromatic >C21 - C35 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	160
TPH-CWG - Aromatic (C5 - C35) HS+EH_1D_AR_#1_#2_MS	µg/l	10	NONE	5700

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



Analytical Report Number : 22-63019  
 Project / Site name: M41997, Bridge Road, Ascot

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
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

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 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

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

**e:** charles.wake@jnpqgroup.co.uk

## **Analytical Report Number : 22-65846**

<b>Project / Site name:</b>	Bridge Road, Ascot	<b>Samples received on:</b>	20/06/2022
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	20/06/2022
<b>Your order number:</b>	G1555	<b>Analysis completed by:</b>	29/06/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	29/06/2022
<b>Samples Analysed:</b>	1 water sample		

**Signed:** 

Izabela Wójcik  
Reporting Specialist  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 22-65846  
 Project / Site name: Bridge Road, Ascot

Your Order No: G1555

Lab Sample Number	2319068			
Sample Reference	BH305B			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	20/06/2022			
Time Taken	1300			
Analytical Parameter (Water Analysis)				

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	359
-------------	------	------	-----------	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	59.4
Toluene	µg/l	1	ISO 17025	17.2
Ethylbenzene	µg/l	1	ISO 17025	16.8
p & m-xylene	µg/l	1	ISO 17025	35.3
o-xylene	µg/l	1	ISO 17025	21.7
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35) <sub>HS+EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	59
TPH-CWG - Aromatic >C7 - C8 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	17
TPH-CWG - Aromatic >C8 - C10 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	110
TPH-CWG - Aromatic >C10 - C12 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	520
TPH-CWG - Aromatic >C12 - C16 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	320
TPH-CWG - Aromatic >C16 - C21 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	240
TPH-CWG - Aromatic >C21 - C35 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	55
TPH-CWG - Aromatic (C5 - C35) <sub>HS+EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	1300

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



Analytical Report Number : 22-65846  
 Project / Site name: Bridge Road, Ascot

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
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

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 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



4041



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

**t:** 01923 225404

**f:** 01923 237404

**e:** reception@i2analytical.com

**e:** charles.wake@jnpqgroup.co.uk

## **Analytical Report Number : 22-70861**

<b>Project / Site name:</b>	Bridge Road Ascot	<b>Samples received on:</b>	13/07/2022
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	13/07/2022
<b>Your order number:</b>	PO G1555	<b>Analysis completed by:</b>	21/07/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	21/07/2022
<b>Samples Analysed:</b>	1 water sample		

**Signed:**



Adam Fenwick  
Technical Reviewer

**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 22-70861  
Project / Site name: Bridge Road Ascot

Your Order No: PO G1555

Lab Sample Number	2346984			
Sample Reference	BH305B			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	13/07/2022			
Time Taken	1130			
Analytical Parameter (Water Analysis)				

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	495
-------------	------	------	-----------	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	44.5
Toluene	µg/l	1	ISO 17025	13
Ethylbenzene	µg/l	1	ISO 17025	14.9
p & m-xylene	µg/l	1	ISO 17025	33.7
o-xylene	µg/l	1	ISO 17025	18.5
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10 <sub>HS_1D_AL</sub>	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35 <sub>EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35) <sub>HS+EH_1D_AL_#1_#2_MS</sub>	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	45
TPH-CWG - Aromatic >C7 - C8 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	13
TPH-CWG - Aromatic >C8 - C10 <sub>HS_1D_AR</sub>	µg/l	1	ISO 17025	94
TPH-CWG - Aromatic >C10 - C12 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	810
TPH-CWG - Aromatic >C12 - C16 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	540
TPH-CWG - Aromatic >C16 - C21 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	750
TPH-CWG - Aromatic >C21 - C35 <sub>EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	77
TPH-CWG - Aromatic (C5 - C35) <sub>HS+EH_1D_AR_#1_#2_MS</sub>	µg/l	10	NONE	2300

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



Analytical Report Number : 22-70861  
 Project / Site name: Bridge Road Ascot

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
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

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 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

e: charles.wake@jnpqgroup.co.uk

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 : 22-74154**

<b>Project / Site name:</b>	Bridge Road Ascot	<b>Samples received on:</b>	27/07/2022
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	28/07/2022
<b>Your order number:</b>	PO G1555	<b>Analysis completed by:</b>	05/08/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	05/08/2022
<b>Samples Analysed:</b>	1 water sample		

**Signed:** 

Martyna Langer  
Junior Reporting Specialist  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-74154  
Project / Site name: Bridge Road Ascot

Your Order No: PO G1555

Lab Sample Number	2366572			
Sample Reference	BH305B			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	17/07/2022			
Time Taken	0930			
Analytical Parameter (Water Analysis)				

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	395
-------------	------	------	-----------	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0
Toluene	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
o-xylene	µg/l	1	ISO 17025	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 HS_1D_AL	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8 HS_1D_AL	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10 HS_1D_AL	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35 EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35) HS+EH_1D_AL_#1_#2_MS	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7 HS_1D_AR	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C7 - C8 HS_1D_AR	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C8 - C10 HS_1D_AR	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C10 - C12 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	400
TPH-CWG - Aromatic >C12 - C16 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	280
TPH-CWG - Aromatic >C16 - C21 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	330
TPH-CWG - Aromatic >C21 - C35 EH_1D_AR_#1_#2_MS	µg/l	10	NONE	140
TPH-CWG - Aromatic (C5 - C35) HS+EH_1D_AR_#1_#2_MS	µg/l	10	NONE	1100

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



Analytical Report Number : 22-74154  
 Project / Site name: Bridge Road Ascot

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
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

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 30°C.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

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

**e:** charles.wake@jnpgroup.co.uk

## **Analytical Report Number : 21-10057**

<b>Project / Site name:</b>	Sunninghill Gasworks	<b>Samples received on:</b>	15/09/2021
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	15/09/2021
<b>Your order number:</b>	G1163	<b>Analysis completed by:</b>	22/09/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	22/09/2021
<b>Samples Analysed:</b>	2 water samples		

**Signed** 

Karolina Marek  
PL Head of Reporting Team  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 21-10057  
 Project / Site name: Sunninghill Gasworks

Lab Sample Number				2011486	2011487
Sample Reference				MWA1	BH304
Sample Number				None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied
Date Sampled				15/09/2021	15/09/2021
Time Taken				None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

General Inorganics

pH	pH Units	N/A	ISO 17025	7.4	4.2
Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	240	260

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	240
----------------------------	------	----	-----------	------	-----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	2.19	234
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	0.81
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	1.20
Fluorene	µg/l	0.01	ISO 17025	< 0.01	1.37
Phenanthrene	µg/l	0.01	ISO 17025	0.38	< 0.01
Anthracene	µg/l	0.01	ISO 17025	0.24	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	2.11	< 0.01
Pyrene	µg/l	0.01	ISO 17025	2.04	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	1.19	< 0.01
Chrysene	µg/l	0.01	ISO 17025	1.07	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	1.57	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	0.74	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	1.28	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	0.67	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	0.81	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	14.3	238
-------------------	------	------	-----------	------	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0	425
Toluene	µg/l	1	ISO 17025	< 1.0	30.2
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	35.9
p & m-xylene	µg/l	1	ISO 17025	< 1.0	47.8
o-xylene	µg/l	1	ISO 17025	< 1.0	27.4
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0



Analytical Report Number: 21-10057  
 Project / Site name: Sunninghill Gasworks

Lab Sample Number				2011486	2011487
Sample Reference				MWA1	BH304
Sample Number				None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied
Date Sampled				15/09/2021	15/09/2021
Time Taken				None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	430
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	30
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	130
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	560
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	700
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	230
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	2100

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





Analytical Report Number : 21-10057  
 Project / Site name: Sunninghill Gasworks

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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.	L099-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.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

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

**e:** charles.wake@jnpqgroup.co.uk

## **Analytical Report Number : 21-12464**

<b>Project / Site name:</b>	Sunninghill Gasworks	<b>Samples received on:</b>	27/09/2021
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	27/09/2021
<b>Your order number:</b>	G1163	<b>Analysis completed by:</b>	07/10/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	07/10/2021
<b>Samples Analysed:</b>	6 water samples		

**Signed:** 

Izabela Wójcik  
Technical Reviewer (Reporting Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 21-12464  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2024891	2024892	2024893	2024894	2024895
Sample Reference	PRB117	MWA1	BH203	BH303A	BH304
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	27/09/2021	27/09/2021	27/09/2021	27/09/2021	27/09/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	1100000	270	520000	44000	75000
--------------------------	------	----	-----------	---------	-----	--------	-------	-------

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	< 10	210
----------------------------	------	----	-----------	------	------	------	------	-----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	2.48	< 0.01	25.5	639
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	1.36
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	3.33
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	3.93
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	0.72	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	0.64	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	3.84	< 0.16	25.5	647
-------------------	------	------	-----------	--------	------	--------	------	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	572
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	34.2
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	36.5
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	44.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	28.8
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-12464  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2024891	2024892	2024893	2024894	2024895
Sample Reference	PRB117	MWA1	BH203	BH303A	BH304
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	27/09/2021	27/09/2021	27/09/2021	27/09/2021	27/09/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	570
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	34
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	130
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	26	640
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	26	1400

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



Analytical Report Number: 21-12464  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2024896			
Sample Reference	BH305A			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	27/09/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	65000
--------------------------	------	----	-----------	-------

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	600
----------------------------	------	----	-----------	-----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	499
Acenaphthylene	µg/l	0.01	ISO 17025	29.4
Acenaphthene	µg/l	0.01	ISO 17025	16.1
Fluorene	µg/l	0.01	ISO 17025	22.7
Phenanthrene	µg/l	0.01	ISO 17025	30.8
Anthracene	µg/l	0.01	ISO 17025	7.37
Fluoranthene	µg/l	0.01	ISO 17025	5.03
Pyrene	µg/l	0.01	ISO 17025	3.76
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	615
-------------------	------	------	-----------	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	777
Toluene	µg/l	1	ISO 17025	215
Ethylbenzene	µg/l	1	ISO 17025	110
p & m-xylene	µg/l	1	ISO 17025	323
o-xylene	µg/l	1	ISO 17025	195
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0



Analytical Report Number: 21-12464  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2024896			
Sample Reference	BH305A			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	27/09/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	780
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	220
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	740
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	550
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	470
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	570
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	100
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	3400

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



Analytical Report Number : 21-12464  
 Project / Site name: Sunninghill Gasworks

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

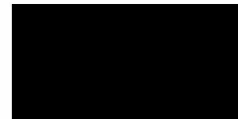
**t:** 01923 225404  
**f:** 01923 237404  
**e:** reception@i2analytical.com

**e:** charles.wake@jnpgroup.co.uk

## **Analytical Report Number : 21-16450**

<b>Project / Site name:</b>	Sunninghill Gasworks	<b>Samples received on:</b>	14/10/2021
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	14/10/2021
<b>Your order number:</b>	G1163	<b>Analysis completed by:</b>	25/10/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	25/10/2021
<b>Samples Analysed:</b>	5 water samples		

**Signed:**



Joanna Wawrzeczko  
Technical Reviewer (Reporting Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.





Analytical Report Number: 21-16450  
Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2047420				2047421	2047422	2047423	2047424
Sample Reference	PRB117				BH203	BH303A	BH304	BH305A
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	13/10/2021				13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)								

General Inorganics

Ammoniacal Nitrogen as NH <sub>4</sub>	µg/l	15	ISO 17025	1500000*	75000	50000	290	110000*
--	------	----	-----------	----------	-------	-------	-----	---------

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	240	810
----------------------------	------	----	-----------	------	------	------	-----	-----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	1.80	4.77	3.22	281*	908*
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	0.69	9.28
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	1.28	7.13
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	1.44	7.27
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	0.42	11.0
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	2.59
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	2.37
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	1.69
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	1.80	4.77	3.22	285	950
-------------------	------	------	-----------	------	------	------	-----	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	423	828
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	26.4	177
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	25.6	139
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	32.5	384
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	21.2	237
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-16450  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2047420				2047421	2047422	2047423	2047424
Sample Reference	PRB117				BH203	BH303A	BH304	BH305A
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	13/10/2021				13/10/2021	13/10/2021	13/10/2021	13/10/2021
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)								

**Petroleum Hydrocarbons**

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	130	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	680	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	900	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	1700	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	420	830
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	26	180
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	87	910
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	80	< 10	< 10	840	2700
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	330	2100
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	300	1700
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	170	460
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	80	< 10	< 10	2200	8800

U/S = Unsuitable Sample I/S = Insufficient Sample  
 \* Result was reported from high dilution and should be interpreted with care



Analytical Report Number : 21-16450  
 Project / Site name: Sunninghill Gasworks

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

**e:** charles.wake@jnpgroup.co.uk

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

## **Analytical Report Number : 21-18412**

<b>Project / Site name:</b>	Sunninghill Gasworks	<b>Samples received on:</b>	22/10/2021
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	22/10/2021
<b>Your order number:</b>	G1163	<b>Analysis completed by:</b>	02/11/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	02/11/2021
<b>Samples Analysed:</b>	11 water samples		

**Signed:** 

Joanna Wawrzeczko  
Technical Reviewer (Reporting Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 21-18412  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2058596	2058597	2058598	2058599	2058600
Sample Reference	BH201a	BH301	PRB104	BH306	BH307A
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	22/10/2021	22/10/2021	22/10/2021	22/10/2021	22/10/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	11000	2800	4700	3300	410

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	18	12	43	11	< 10

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	1.86	0.67	8.79	45.4	1.47
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	5.31	3.19	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	3.82	5.46	1.58	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	1.84	5.07	1.17	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	2.92	0.30	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	1.62	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	1.72	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	1.32	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	1.86	6.33	32.2	51.6	1.47

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	26.8	< 1.0	< 1.0	10.2	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	27.7	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	14.6	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	15.1	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	15.4	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-18412  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2058596				2058597	2058598	2058599	2058600
Sample Reference	BH201a				BH301	PRB104	BH306	BH307A
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	22/10/2021				22/10/2021	22/10/2021	22/10/2021	22/10/2021
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)								

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	27	< 1.0	< 1.0	10	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	28	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	57	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	120	130	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	380	120	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	520	160	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	27	< 10	1000	500	< 10

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



Analytical Report Number: 21-18412  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2058601				2058602	2058603	2058604	2058605
Sample Reference	PRB117				BH203	BH303A	BH304	BH305A
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	22/10/2021				22/10/2021	22/10/2021	22/10/2021	22/10/2021
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)								

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	480000	3100	35000	230	73000
--------------------------	------	----	-----------	--------	------	-------	-----	-------

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10	230	340
----------------------------	------	----	-----------	------	------	------	-----	-----

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	1.09	5.86	3.01	161	497
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	0.75	< 0.01	1.04	4.32
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	0.44	< 0.01	0.56	2.88
Fluorene	µg/l	0.01	ISO 17025	< 0.01	0.45	< 0.01	0.55	3.89
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	0.23	< 0.01	< 0.01	2.31
Anthracene	µg/l	0.01	ISO 17025	< 0.01	0.37	< 0.01	< 0.01	0.62
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	0.52	< 0.01	< 0.01	0.69
Pyrene	µg/l	0.01	ISO 17025	< 0.01	0.49	< 0.01	< 0.01	0.55
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	1.09	9.11	3.01	163	512
-------------------	------	------	-----------	------	------	------	-----	-----

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	347	497
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	20.9	96.6
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	17.5	77.3
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	21.3	214
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	14.7	133
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 21-18412  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2058601				2058602	2058603	2058604	2058605
Sample Reference	PRB117				BH203	BH303A	BH304	BH305A
Sample Number	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	22/10/2021				22/10/2021	22/10/2021	22/10/2021	22/10/2021
Time Taken	None Supplied				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)								

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	350	500
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	21	97
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	57	500
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	160	500
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	300	850
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	260	740
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	1100	3200

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





Analytical Report Number: 21-18412  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2058606			
Sample Reference	MWA1			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	22/10/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

General Inorganics

Ammoniacal Nitrogen as N	µg/l	15	ISO 17025	160
--------------------------	------	----	-----------	-----

Total Phenols

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

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
-------------------	------	------	-----------	--------

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0
Toluene	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
o-xylene	µg/l	1	ISO 17025	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0



Analytical Report Number: 21-18412  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2058606			
Sample Reference	MWA1			
Sample Number	None Supplied			
Depth (m)	None Supplied			
Date Sampled	22/10/2021			
Time Taken	None Supplied			
Analytical Parameter (Water Analysis)				

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10

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



Analytical Report Number : 21-18412  
 Project / Site name: Sunninghill Gasworks

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammoniacal Nitrogen as N in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the discrete analyser (colorimetric) salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-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.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



**Charles Wake**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

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

**e:** charles.wake@jnpqgroup.co.uk

## **Analytical Report Number : 21-21934**

<b>Project / Site name:</b>	Sunninghill Gasworks	<b>Samples received on:</b>	10/11/2021
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	10/11/2021
<b>Your order number:</b>	G1163	<b>Analysis completed by:</b>	19/11/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	19/11/2021
<b>Samples Analysed:</b>	8 water samples		

**Signed:** 

Agnieszka Czerwińska  
Technical Reviewer (Reporting Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.



Analytical Report Number: 21-21934  
Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number			2077677	2077678	2077679	2077680	2077681
Sample Reference			BH306	BH307A	PRB117	BH203	BH303A
Sample Number			None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)			None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled			09/11/2021	09/11/2021	09/11/2021	09/11/2021	09/11/2021
Time Taken			None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)							

General Inorganics

Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	3300	380	490000	30000	59000
----------------------------	------	----	-----------	------	-----	--------	-------	-------

Total Phenols

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

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	42.0	< 0.01	< 0.01	2.66	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	2.69	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	1.37	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	0.98	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	47.0	< 0.16	< 0.16	2.66	< 0.16
-------------------	------	------	-----------	------	--------	--------	------	--------



Analytical Report Number: 21-21934  
Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2077677	2077678	2077679	2077680	2077681
Sample Reference	BH306	BH307A	PRB117	BH203	BH303A
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Date Sampled	09/11/2021	09/11/2021	09/11/2021	09/11/2021	09/11/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	3.9	< 1.0	< 1.0	< 1.0	11.0
Toluene	µg/l	1	ISO 17025	7.4	< 1.0	< 1.0	< 1.0	5.2
Ethylbenzene	µg/l	1	ISO 17025	3.8	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	2.5	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	3.8	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	15	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	80	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	90	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	70	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	260	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	3.9	< 1.0	< 1.0	< 1.0	11
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	7.4	< 1.0	< 1.0	< 1.0	5.2
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	10	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	60	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	130	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	60	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	270	< 10	< 10	< 10	16

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



Analytical Report Number: 21-21934  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2077682			2077683			2077684		
Sample Reference	BH304			BH305A			MWA1		
Sample Number	None Supplied			None Supplied			None Supplied		
Depth (m)	None Supplied			None Supplied			None Supplied		
Date Sampled	09/11/2021			09/11/2021			09/11/2021		
Time Taken	None Supplied			None Supplied			None Supplied		
Analytical Parameter (Water Analysis)									

General Inorganics

Ammoniacal Nitrogen as NH4	µg/l	15	ISO 17025	330	140000	110
----------------------------	------	----	-----------	-----	--------	-----

Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	150	410	< 10
----------------------------	------	----	-----------	-----	-----	------

Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	121	827	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	1.17	7.78	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	0.54	6.58	< 0.01
Fluorene	µg/l	0.01	ISO 17025	0.42	3.11	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	0.22	5.24	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	1.12	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	1.21	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	0.92	< 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	123	853	< 0.16
-------------------	------	------	-----------	-----	-----	--------



Analytical Report Number: 21-21934  
 Project / Site name: Sunninghill Gasworks

Your Order No: G1163

Lab Sample Number	2077682			2077683	2077684
Sample Reference	BH304			BH305A	MWA1
Sample Number	None Supplied			None Supplied	None Supplied
Depth (m)	None Supplied			None Supplied	None Supplied
Date Sampled	09/11/2021			09/11/2021	09/11/2021
Time Taken	None Supplied			None Supplied	None Supplied
Analytical Parameter (Water Analysis)					

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	280	708	< 1.0
Toluene	µg/l	1	ISO 17025	16.4	140	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	12.0	107	< 1.0
p & m-xylene	µg/l	1	ISO 17025	13.0	325	< 1.0
o-xylene	µg/l	1	ISO 17025	11.3	219	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7	µg/l	1	ISO 17025	280	710	< 1.0
TPH-CWG - Aromatic >C7 - C8	µg/l	1	ISO 17025	16	140	< 1.0
TPH-CWG - Aromatic >C8 - C10	µg/l	1	ISO 17025	39	780	< 1.0
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	120	830	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	440	1800	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	150	750	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	1000	5000	< 10

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





Analytical Report Number : 21-21934  
Project / Site name: Sunninghill Gasworks

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	NONE
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
Ammonium as NH4 in water	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method. Accredited matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	ISO 17025

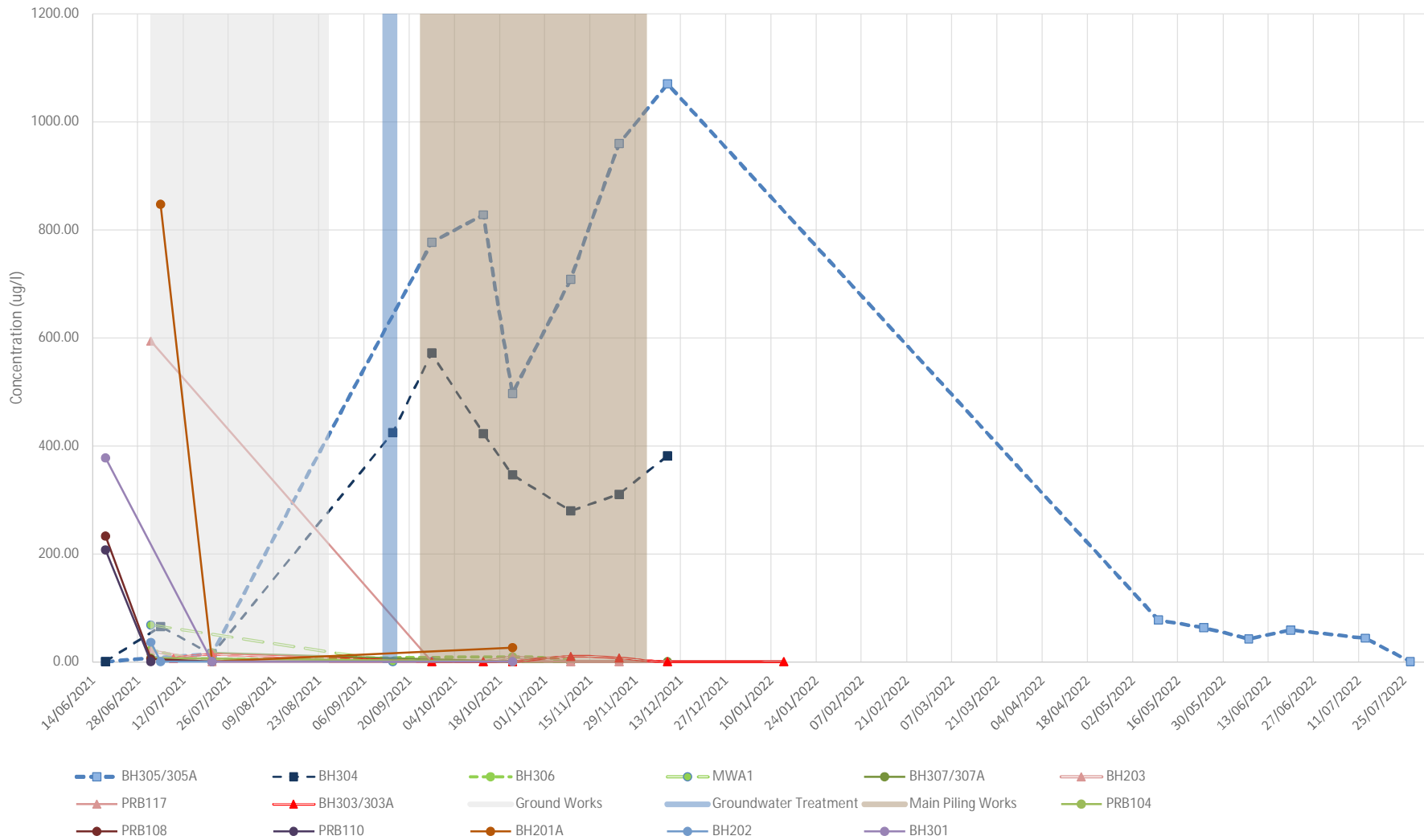
For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

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 30°C.

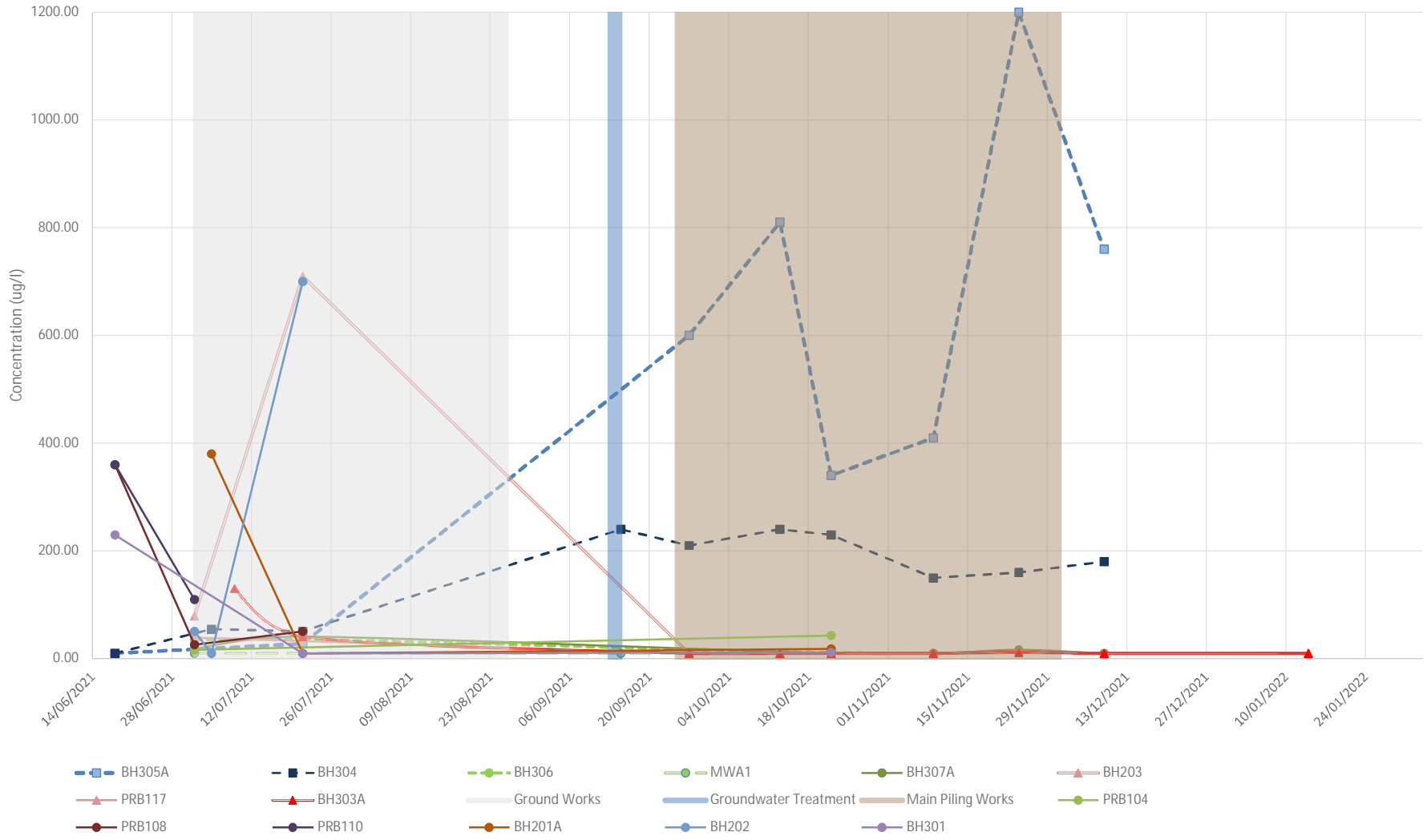
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

# Benzene



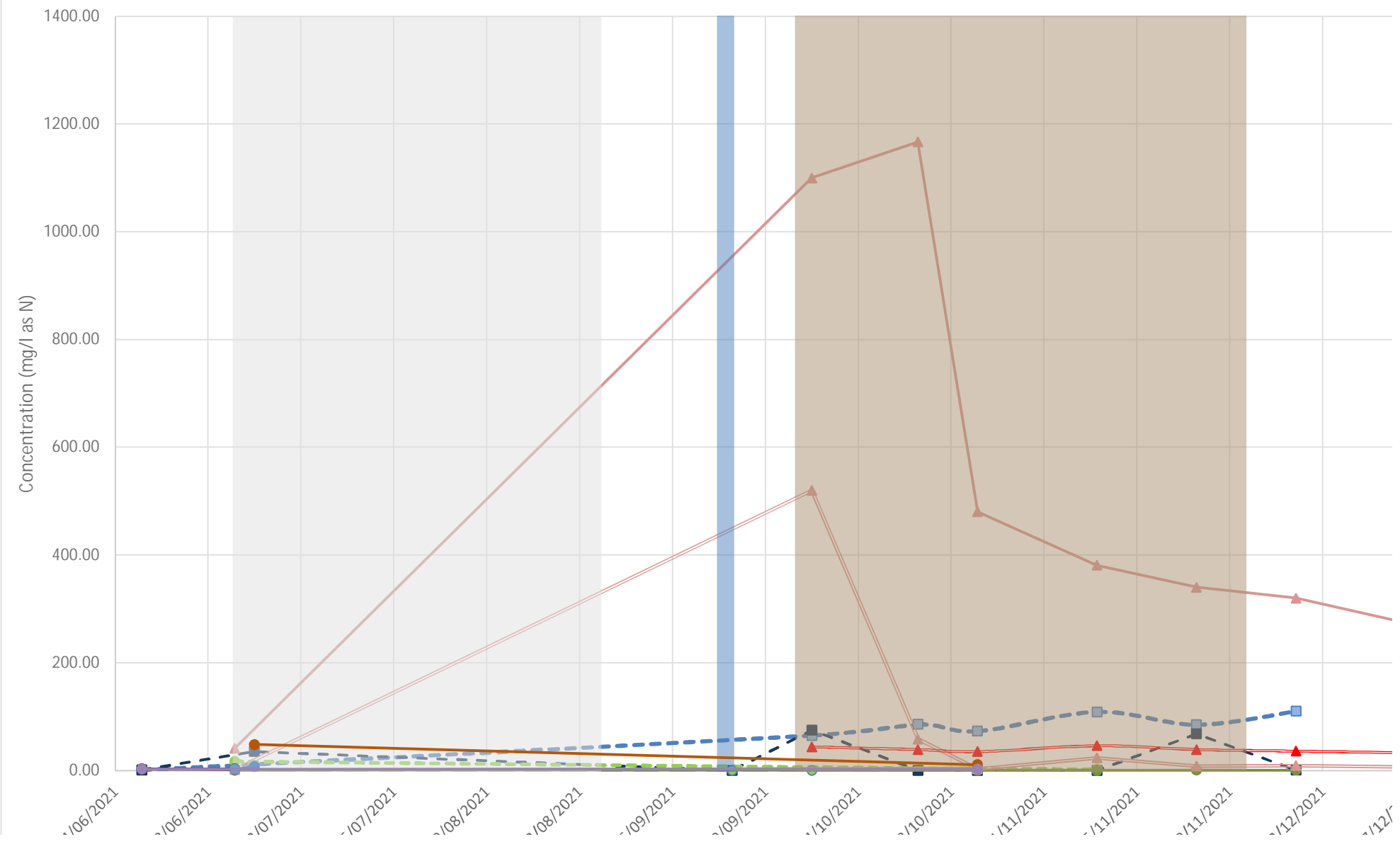


Total Phenol (monohydric)



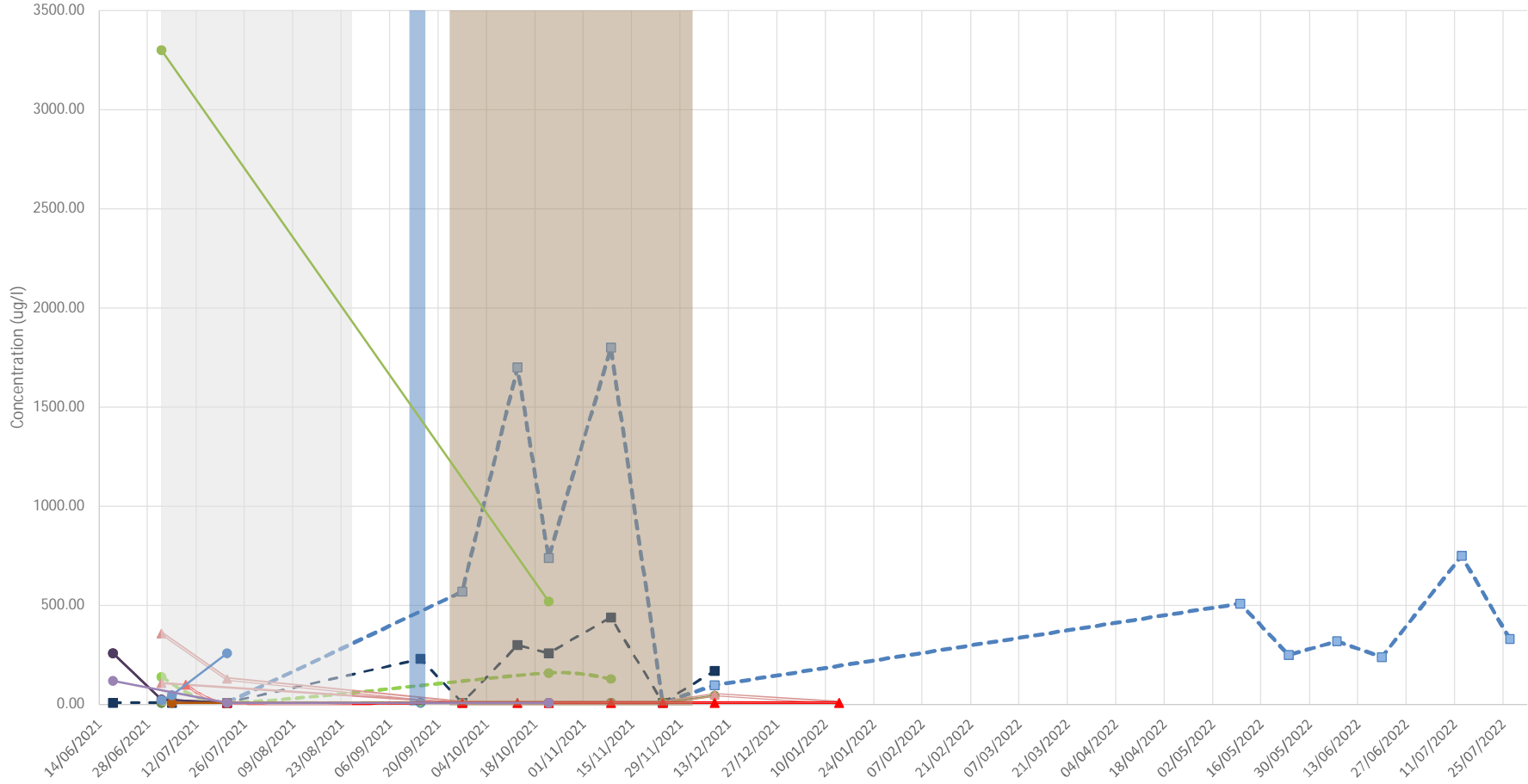


# Ammoniacal Nitrogen





### Aromatics C16 - C21



- BH305/305A
- PRB117
- PRB108
- BH304
- BH303/303A
- PRB110
- BH306
- Ground Works
- BH201A
- MWA1
- Groundwater Treatment
- BH202
- BH307/307A
- Main Piling Works
- BH301
- BH203
- PRB104





**Hilary Ilsley**  
JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

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

**e:** hilary.ilsley@jnpgroup.co.uk

## **Analytical Report Number : 21-92807**

<b>Project / Site name:</b>	Bridge Road, Ascot - Cottage TPs	<b>Samples received on:</b>	12/08/2021
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	13/08/2021
<b>Your order number:</b>	PO G1193	<b>Analysis completed by:</b>	24/08/2021
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	24/08/2021
<b>Samples Analysed:</b>	4 soil samples		

**Signed:** 

Agnieszka Czerwińska  
Technical Reviewer (Reporting Team)  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 21-92807  
 Project / Site name: Bridge Road, Ascot - Cottage TPs  
 Your Order No: PO G1193

Lab Sample Number				1971776	1971777	1971778	1971779
Sample Reference				TP201	TP202	TP203	TP204
Sample Number				1	1	1	1
Depth (m)				0.40	0.60	0.20	0.60
Date Sampled				11/08/2021	11/08/2021	11/08/2021	11/08/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)							
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	4.5	11	12	15
Total mass of sample received	kg	0.001	NONE	0.50	0.50	0.50	0.50

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.5	7.6	7.4	4.7
Total Cyanide	mg/kg	1	MCERTS	35	< 1.0	< 1.0	< 1.0
Complex Cyanide	mg/kg	1	MCERTS	34	< 1.0	< 1.0	< 1.0
Free Cyanide	mg/kg	1	MCERTS	1.0	< 1.0	< 1.0	< 1.0
Ammoniacal Nitrogen as NH <sub>4</sub>	mg/kg	0.5	MCERTS	< 0.5	3.1	< 0.5	3.5
Organic Matter (automated)	%	0.1	MCERTS	0.9	-	-	0.5

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	0.34	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	0.61	< 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	0.26	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	2.0	0.24	0.24	< 0.05
Anthracene	mg/kg	0.05	MCERTS	0.70	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	4.5	0.73	0.75	< 0.05
Pyrene	mg/kg	0.05	MCERTS	4.2	0.76	0.71	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	3.0	0.50	0.51	< 0.05
Chrysene	mg/kg	0.05	MCERTS	2.8	0.38	0.41	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	4.4	0.53	0.54	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	2.1	0.34	0.38	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	3.7	0.48	0.53	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	2.3	0.24	0.30	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.57	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	2.3	0.32	0.33	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	33.7	4.52	4.70	< 0.80

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	19	4.6	6.6	6.1
Barium (aqua regia extractable)	mg/kg	1	MCERTS	530	11	29	9.7
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.39	0.27	0.37	0.31
Boron (water soluble)	mg/kg	0.2	MCERTS	1.1	0.3	0.4	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.5	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	19	14	16	17
Copper (aqua regia extractable)	mg/kg	1	MCERTS	54	4.3	9.0	4.2
Lead (aqua regia extractable)	mg/kg	1	MCERTS	120	7.9	42	6.8
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	15	2.5	5.0	3.0
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	19	22	24	23
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	320	12	43	11

Analytical Report Number: 21-92807  
 Project / Site name: Bridge Road, Ascot - Cottage TPs  
 Your Order No: PO G1193

Lab Sample Number	1971776	1971777	1971778	1971779
Sample Reference	TP201	TP202	TP203	TP204
Sample Number	1	1	1	1
Depth (m)	0.40	0.60	0.20	0.60
Date Sampled	11/08/2021	11/08/2021	11/08/2021	11/08/2021
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				

**Monoaromatics & Oxygenates**

Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/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	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	9.9	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	19	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	57	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	87	< 10	< 10	< 10

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	1.8
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	10	5.9	< 2.0	7.5
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	35	11	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	78	22	14	18
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	120	39	21	36

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



Analytical Report Number : 21-92807

Project / Site name: Bridge Road, Ascot - Cottage TPs

\* 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 *
1971776	TP201	1	0.4	Brown gravelly loam.
1971777	TP202	1	0.6	Brown clay and sand.
1971778	TP203	1	0.2	Brown loam and clay with gravel and vegetation.
1971779	TP204	1	0.6	Brown clay and sand.

Analytical Report Number : 21-92807

Project / Site name: Bridge Road, Ascot - Cottage TPs

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
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
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Complex Cyanide in soil	Determination of complex cyanide by calculation.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	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
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-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 cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
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
Ammonium as NH4 in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	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.



Analytical Report Number : 21-92807  
 Project / Site name: Bridge Road, Ascot - Cottage TPs

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

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
----------------------	-------------------------------	-----------------------------	---------------	--------------------	----------------------

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.



**Joel Prestwich**  
JNP Midlands LLP  
Portobello House  
Portobello Way  
Warwick  
CV34 5GJ

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

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

**e:** joel.prestwich@jnpqgroup.co.uk

## **Analytical Report Number : 22-89876**

<b>Project / Site name:</b>	Bridge Road	<b>Samples received on:</b>	12/10/2022
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	12/10/2022
<b>Your order number:</b>	G1753	<b>Analysis completed by:</b>	24/10/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	25/10/2022
<b>Samples Analysed:</b>	4 soil samples		

**Signed:** 

Anna Goc  
Junior Reporting Specialist  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-89876  
 Project / Site name: Bridge Road  
 Your Order No: G1753

Lab Sample Number	2459526			2459527		2459528		2459529	
Sample Reference	PLOT 1			PLOT 2		POS1		POS2	
Sample Number	1			2		1		1	
Depth (m)	0.40			0.55		0.30		0.45	
Date Sampled	10/10/2022			10/10/2022		10/10/2022		10/10/2022	
Time Taken	None Supplied			None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)									
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	17	14	13	15		
Total mass of sample received	kg	0.001	NONE	0.5	0.5	0.8	0.4		

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	GFI	GFI	GFI	GFI

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.3	7.9	7.8	8
Organic Matter (automated)	%	0.1	MCERTS	2.8	0.5	6.8	2.9

Speciated PAHs

Compound	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	NONE	< 0.05	< 0.05	0.49	< 0.05
Anthracene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	NONE	< 0.05	< 0.05	1.4	< 0.05
Pyrene	mg/kg	0.05	NONE	< 0.05	< 0.05	1.3	< 0.05
Benzo(a)anthracene	mg/kg	0.05	NONE	< 0.05	< 0.05	0.95	< 0.05
Chrysene	mg/kg	0.05	NONE	< 0.05	< 0.05	1	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	NONE	< 0.05	< 0.05	1.2	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	NONE	< 0.05	< 0.05	0.55	< 0.05
Benzo(a)pyrene	mg/kg	0.05	NONE	< 0.05	< 0.05	1.1	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	< 0.05	< 0.05	0.51	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	NONE	< 0.05	< 0.05	0.54	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	NONE	< 0.80	< 0.80	9.03	< 0.80
-----------------------------	-------	-----	------	--------	--------	------	--------

Heavy Metals / Metalloids

Element	mg/kg	1	MCERTS	8.1	12	9.9	11
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	8.1	12	9.9	11
Barium (aqua regia extractable)	mg/kg	1	MCERTS	35	56	76	19
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.47	1	0.45	0.53
Boron (water soluble)	mg/kg	0.2	MCERTS	0.9	0.8	3	1.4
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.6	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	20	36	14	24
Copper (aqua regia extractable)	mg/kg	1	MCERTS	16	52	29	9.8
Lead (aqua regia extractable)	mg/kg	1	MCERTS	30	15	65	13
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	0.6	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	12	28	11	11
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	34	63	23	45
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	52	54	94	33

Monoaromatics & Oxygenates

Compound	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0



Analytical Report Number: 22-89876  
 Project / Site name: Bridge Road  
 Your Order No: G1753

Lab Sample Number	2459526	2459527	2459528	2459529
Sample Reference	PLOT 1	PLOT 2	POS1	POS2
Sample Number	1	2	1	1
Depth (m)	0.40	0.55	0.30	0.45
Date Sampled	10/10/2022	10/10/2022	10/10/2022	10/10/2022
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				

Petroleum Hydrocarbons							
TPH-CWG - Aliphatic >EC5 - EC6 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 <sub>EH_CU_1D_AL</sub>	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 <sub>EH_CU_1D_AL</sub>	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 <sub>EH_CU_1D_AL</sub>	mg/kg	8	NONE	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 <sub>EH_CU_1D_AL</sub>	mg/kg	8	NONE	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) <sub>EH_CU+HS_1D_AL</sub>	mg/kg	10	NONE	< 10	< 10	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 <sub>EH_CU_1D_AR</sub>	mg/kg	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 <sub>EH_CU_1D_AR</sub>	mg/kg	2	NONE	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 <sub>EH_CU_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 <sub>EH_CU_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10	27	< 10
TPH-CWG - Aromatic (EC5 - EC35) <sub>EH_CU+HS_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10	30	< 10

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

Analytical Report Number : 22-89876  
Project / Site name: Bridge Road

\* 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 *
2459526	PLOT 1	1	0.4	Brown loam and clay with gravel and vegetation.
2459527	PLOT 2	2	0.55	Brown sandy clay with gravel.
2459528	POS1	1	0.3	Brown loam and sand with gravel and vegetation.
2459529	POS2	1	0.45	Brown loam and clay with gravel.

Analytical Report Number : 22-89876  
Project / Site name: Bridge Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Asbestos identification in soil	Asbestos identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 °C)	In house method.	L019-UK/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	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-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
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	NONE
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (Fast Kilbride).

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted



Analytical Report Number : 22-89876  
 Project / Site name: Bridge Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
-	Operator - understore to separate acronyms (exception for +)				
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total				



**Joel Prestwich**  
JNP Midlands LLP  
Portobello House  
Portobello Way  
Warwick  
CV34 5GJ

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

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

**e:** joel.prestwich@jnpqgroup.co.uk

## **Analytical Report Number : 22-96078**

<b>Project / Site name:</b>	Bridge Road	<b>Samples received on:</b>	10/11/2022
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	10/11/2022
<b>Your order number:</b>	G1753	<b>Analysis completed by:</b>	23/11/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	23/11/2022
<b>Samples Analysed:</b>	2 soil samples		

**Signed:** 

Anna Goc  
Junior Reporting Specialist  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-96078  
 Project / Site name: Bridge Road  
 Your Order No: G1753

Lab Sample Number				2496186	2496187
Sample Reference				PLOT 1 F	PLOT 2 F
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.50
Date Sampled				10/11/2022	10/11/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)					
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	17	16
Total mass of sample received	kg	0.001	NONE	0.4	0.4

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	ASE	ASE

#### General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9	8
Organic Matter (automated)	%	0.1	MCERTS	0.5	0.6

#### Speciated PAHs

Naphthalene	mg/kg	0.05	NONE	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	NONE	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	NONE	< 0.05	< 0.05
Fluorene	mg/kg	0.05	NONE	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	NONE	0.36	< 0.05
Anthracene	mg/kg	0.05	NONE	0.14	< 0.05
Fluoranthene	mg/kg	0.05	NONE	0.67	< 0.05
Pyrene	mg/kg	0.05	NONE	0.69	< 0.05
Benzo(a)anthracene	mg/kg	0.05	NONE	0.33	< 0.05
Chrysene	mg/kg	0.05	NONE	0.38	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	NONE	0.38	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	NONE	0.22	< 0.05
Benzo(a)pyrene	mg/kg	0.05	NONE	0.39	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	0.24	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	NONE	0.26	< 0.05

#### Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	NONE	4.06	< 0.80
-----------------------------	-------	-----	------	------	--------

#### Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	33	21
Barium (aqua regia extractable)	mg/kg	1	MCERTS	38	18
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.2	0.79
Boron (water soluble)	mg/kg	0.2	MCERTS	0.2	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	120	64
Copper (aqua regia extractable)	mg/kg	1	MCERTS	7.5	5
Lead (aqua regia extractable)	mg/kg	1	MCERTS	19	14
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	44	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	190	110
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	61	52

Analytical Report Number: 22-96078  
 Project / Site name: Bridge Road  
 Your Order No: G1753

Lab Sample Number	2496186	2496187
Sample Reference	PLOT 1 F	PLOT 2 F
Sample Number	None Supplied	None Supplied
Depth (m)	0.40	0.50
Date Sampled	10/11/2022	10/11/2022
Time Taken	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)		

**Monoaromatics & Oxygenates**

Benzene	µg/kg	1	NONE	< 1.0	< 1.0
Toluene	µg/kg	1	NONE	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	NONE	< 1.0	< 1.0
p & m-xylene	µg/kg	1	NONE	< 1.0	< 1.0
o-xylene	µg/kg	1	NONE	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	NONE	< 1.0	< 1.0

**Petroleum Hydrocarbons**

TPH-CWG - Aliphatic >EC5 - EC6 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 <sub>EH_CU_1D_AL</sub>	mg/kg	1	NONE	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 <sub>EH_CU_1D_AL</sub>	mg/kg	2	NONE	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 <sub>EH_CU_1D_AL</sub>	mg/kg	8	NONE	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 <sub>EH_CU_1D_AL</sub>	mg/kg	8	NONE	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) <sub>EH_CU+HS_1D_AL</sub>	mg/kg	10	NONE	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 <sub>EH_CU_1D_AR</sub>	mg/kg	1	NONE	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 <sub>EH_CU_1D_AR</sub>	mg/kg	2	NONE	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 <sub>EH_CU_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 <sub>EH_CU_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) <sub>EH_CU+HS_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10

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



Analytical Report Number : 22-96078  
 Project / Site name: Bridge Road

\* 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 *
2496186	PLOT 1 F	None Supplied	0.4	Brown clay and sand with gravel.
2496187	PLOT 2 F	None Supplied	0.5	Brown clay and sand with gravel.



Analytical Report Number : 22-96078  
Project / Site name: Bridge Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Asbestos identification in soil	Asbestos identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/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	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-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
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	NONE
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (Fast Kilbride).

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted



Analytical Report Number : 22-96078  
 Project / Site name: Bridge Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
-	Operator - understore to separate acronyms (exception for +)				
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total				



**Joel Prestwich**  
JNP Midlands LLP  
Portobello House  
Portobello Way  
Warwick  
CV34 5GJ

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

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

**e:** joel.prestwich@jnpqgroup.co.uk

## **Analytical Report Number : 22-96078**

<b>Project / Site name:</b>	Bridge Road	<b>Samples received on:</b>	10/11/2022
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	10/11/2022
<b>Your order number:</b>	G1753	<b>Analysis completed by:</b>	23/11/2022
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	23/11/2022
<b>Samples Analysed:</b>	2 soil samples		

**Signed:** 

Anna Goc  
Junior Reporting Specialist  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 22-96078  
 Project / Site name: Bridge Road  
 Your Order No: G1753

Lab Sample Number				2496186	2496187
Sample Reference				PLOT 1 F	PLOT 2 F
Sample Number				None Supplied	None Supplied
Depth (m)				0.40	0.50
Date Sampled				10/11/2022	10/11/2022
Time Taken				None Supplied	None Supplied
Analytical Parameter (Soil Analysis)					
Stone Content	%	0.1	NONE	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	17	16
Total mass of sample received	kg	0.001	NONE	0.4	0.4

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	ASE	ASE

#### General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9	8
Organic Matter (automated)	%	0.1	MCERTS	0.5	0.6

#### Speciated PAHs

Naphthalene	mg/kg	0.05	NONE	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	NONE	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	NONE	< 0.05	< 0.05
Fluorene	mg/kg	0.05	NONE	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	NONE	0.36	< 0.05
Anthracene	mg/kg	0.05	NONE	0.14	< 0.05
Fluoranthene	mg/kg	0.05	NONE	0.67	< 0.05
Pyrene	mg/kg	0.05	NONE	0.69	< 0.05
Benzo(a)anthracene	mg/kg	0.05	NONE	0.33	< 0.05
Chrysene	mg/kg	0.05	NONE	0.38	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	NONE	0.38	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	NONE	0.22	< 0.05
Benzo(a)pyrene	mg/kg	0.05	NONE	0.39	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	NONE	0.24	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	NONE	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	NONE	0.26	< 0.05

#### Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	NONE	4.06	< 0.80
-----------------------------	-------	-----	------	------	--------

#### Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	33	21
Barium (aqua regia extractable)	mg/kg	1	MCERTS	38	18
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.2	0.79
Boron (water soluble)	mg/kg	0.2	MCERTS	0.2	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	120	64
Copper (aqua regia extractable)	mg/kg	1	MCERTS	7.5	5
Lead (aqua regia extractable)	mg/kg	1	MCERTS	19	14
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	44	34
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	190	110
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	61	52

Analytical Report Number: 22-96078  
 Project / Site name: Bridge Road  
 Your Order No: G1753

Lab Sample Number	2496186	2496187
Sample Reference	PLOT 1 F	PLOT 2 F
Sample Number	None Supplied	None Supplied
Depth (m)	0.40	0.50
Date Sampled	10/11/2022	10/11/2022
Time Taken	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)		

**Monoaromatics & Oxygenates**

Benzene	µg/kg	1	NONE	< 1.0	< 1.0
Toluene	µg/kg	1	NONE	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	NONE	< 1.0	< 1.0
p & m-xylene	µg/kg	1	NONE	< 1.0	< 1.0
o-xylene	µg/kg	1	NONE	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	NONE	< 1.0	< 1.0

**Petroleum Hydrocarbons**

TPH-CWG - Aliphatic >EC5 - EC6 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 <sub>EH_CU_1D_AL</sub>	mg/kg	1	NONE	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 <sub>EH_CU_1D_AL</sub>	mg/kg	2	NONE	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 <sub>EH_CU_1D_AL</sub>	mg/kg	8	NONE	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 <sub>EH_CU_1D_AL</sub>	mg/kg	8	NONE	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) <sub>EH_CU+HS_1D_AL</sub>	mg/kg	10	NONE	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 <sub>EH_CU_1D_AR</sub>	mg/kg	1	NONE	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 <sub>EH_CU_1D_AR</sub>	mg/kg	2	NONE	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 <sub>EH_CU_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 <sub>EH_CU_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) <sub>EH_CU+HS_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10

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



Analytical Report Number : 22-96078  
 Project / Site name: Bridge Road

\* 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 *
2496186	PLOT 1 F	None Supplied	0.4	Brown clay and sand with gravel.
2496187	PLOT 2 F	None Supplied	0.5	Brown clay and sand with gravel.

Analytical Report Number : 22-96078  
Project / Site name: Bridge Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Asbestos identification in soil	Asbestos identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/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	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-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
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	NONE
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (Fast Kilbride).

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

## Information in Support of Analytical Results

### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted



Analytical Report Number : 22-96078  
 Project / Site name: Bridge Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
-	Operator - understore to separate acronyms (exception for +)				
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total				





**Joel Prestwich**  
JNP Midlands LLP  
Portobello House  
Portobello Way  
Warwick  
CV34 5GJ

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

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

**e:** joel.prestwich@jnpgroup.co.uk

## **Analytical Report Number : 23-18713**

<b>Project / Site name:</b>	Bridge Road	<b>Samples received on:</b>	21/02/2023
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	21/02/2023
<b>Your order number:</b>	G1753	<b>Analysis completed by:</b>	02/03/2023
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	02/03/2023
<b>Samples Analysed:</b>	4 soil samples		

**Signed:** 

Joanna Wawrzeczko  
Reporting Specialist  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-18713  
 Project / Site name: Bridge Road  
 Your Order No: G1753

Lab Sample Number	2592670			2592671			2592672			2592673		
Sample Reference	HP04 TS			HP09 TS			HP04 SS			HP09 SS		
Sample Number	None Supplied			None Supplied			None Supplied			None Supplied		
Depth (m)	0.20			0.30			0.60			0.50		
Date Sampled	20/02/2023			20/02/2023			20/02/2023			20/02/2023		
Time Taken	None Supplied			None Supplied			None Supplied			None Supplied		
Analytical Parameter (Soil Analysis)												
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	
Moisture Content	%	0.01	NONE	12	18	19	19	19	19	9.7	9.7	
Total mass of sample received	kg	0.001	NONE	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SZS	SZS	SZS	SZS

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8.5	8.4	8.3	8.2
Organic Matter (automated)	%	0.1	MCERTS	5.6	4.9	4.7	0.1

Speciated PAHs

Compound	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
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	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 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	< 0.05	< 0.05	< 0.05	< 0.05

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	< 0.80	< 0.80	< 0.80

Heavy Metals / Metalloids

Compound	mg/kg	1	MCERTS	13	13	8.8	10
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	13	8.8	10
Barium (aqua regia extractable)	mg/kg	1	MCERTS	30	28	17	15
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.5	0.48	0.25	0.38
Boron (water soluble)	mg/kg	0.2	MCERTS	2.2	1.8	1.1	< 0.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	18	17	11	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	16	13	13	9.4
Lead (aqua regia extractable)	mg/kg	1	MCERTS	17	20	16	6.8
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	17	17	11	14
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	32	30	20	25
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	63	67	43	36

Analytical Report Number: 23-18713  
 Project / Site name: Bridge Road  
 Your Order No: G1753

Lab Sample Number	2592670	2592671	2592672	2592673
Sample Reference	HP04 TS	HP09 TS	HP04 SS	HP09 SS
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)	0.20	0.30	0.60	0.50
Date Sampled	20/02/2023	20/02/2023	20/02/2023	20/02/2023
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				

**Monoaromatics & Oxygenates**

Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0

**Petroleum Hydrocarbons**

TPH-CWG - Aliphatic >EC5 - EC6 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 <sub>HS_1D_AL</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 <sub>EH_CU_1D_AL</sub>	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 <sub>EH_CU_1D_AL</sub>	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 <sub>EH_CU_1D_AL</sub>	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 <sub>EH_CU_1D_AL</sub>	mg/kg	8	MCERTS	< 8.0	10	9	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) <sub>EH_CU+HS_1D_AL</sub>	mg/kg	10	NONE	< 10	11	11	< 10

TPH-CWG - Aromatic >EC5 - EC7 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 <sub>HS_1D_AR</sub>	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 <sub>EH_CU_1D_AR</sub>	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 <sub>EH_CU_1D_AR</sub>	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 <sub>EH_CU_1D_AR</sub>	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 <sub>EH_CU_1D_AR</sub>	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) <sub>EH_CU+HS_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 23-18713  
Project / Site name: Bridge Road

\* 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 *
2592670	HP04 TS	None Supplied	0.2	Brown loam and sand with gravel and vegetation.
2592671	HP09 TS	None Supplied	0.3	Brown loam and sand with gravel and vegetation.
2592672	HP04 SS	None Supplied	0.6	Brown sand with gravel and vegetation.
2592673	HP09 SS	None Supplied	0.5	Brown sand with gravel.

Analytical Report Number : 23-18713  
Project / Site name: Bridge Road

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Asbestos identification in soil	Asbestos identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/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
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-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
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (Fast Kilbride).

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Analytical Report Number : 23-18713  
 Project / Site name: Bridge Road

Water matrix abbreviations:  
 Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
----------------------	-------------------------------	-----------------------------	---------------	--------------------	----------------------

### Information in Support of Analytical Results

#### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total



**Ben Thrift**

JNP Midlands LLP  
3rd Floor  
Marlborough House  
48 Holly Walk  
Leamington Spa  
CV32 4XP

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

**t:** 01923 225404

**f:** 01923 237404

**e:** reception@i2analytical.com

**e:** Ben.Thrift@jnpqgroup.co.uk

## **Analytical Report Number : 23-45210**

<b>Project / Site name:</b>	Bridge Road	<b>Samples received on:</b>	14/07/2023
<b>Your job number:</b>	M41977	<b>Samples instructed on/ Analysis started on:</b>	14/07/2023
<b>Your order number:</b>	G1753	<b>Analysis completed by:</b>	26/07/2023
<b>Report Issue Number:</b>	1	<b>Report issued on:</b>	26/07/2023
<b>Samples Analysed:</b>	3 soil samples		

**Signed:**

Izabela Wójcik  
Reporting Specialist  
**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.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement. Application of uncertainty of measurement would provide a range within which the true result lies. An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-45210

Project / Site name: Bridge Road

Your Order No: G1753

Lab Sample Number	2749304			2749305		2749306	
Sample Reference	Plot 47B SS			Plot 50B TS		Block C15/1 SS	
Sample Number	ES1			ES2		ES3	
Depth (m)	0.50			0.40		0.20	
Date Sampled	14/07/2023			14/07/2023		14/07/2023	
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	%	0.01	NONE	13	13	19	
Total mass of sample received	kg	0.001	NONE	0.3	0.3	0.3	

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	SPU	SPU	SPU

#### General Inorganics

pH - Automated	pH Units	N/A	MCERTS	8	8	8.4
Organic Matter (automated)	%	0.1	MCERTS	0.3	0.4	6.2

#### Speciated PAHs

	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05
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	0.09
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07
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	ISO 17025	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 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	ISO 17025	< 0.80	< 0.80	< 0.80

#### Heavy Metals / Metalloids

	mg/kg	1	MCERTS	11	12	7.1
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	12	7.1
Barium (aqua regia extractable)	mg/kg	1	MCERTS	17	19	21
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.49	0.54	0.26
Boron (water soluble)	mg/kg	0.2	MCERTS	0.2	< 0.2	0.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	16	18	7.7
Copper (aqua regia extractable)	mg/kg	1	MCERTS	13	14	18
Lead (aqua regia extractable)	mg/kg	1	MCERTS	8	8.2	18
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	14	15	8.8
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	30	34	15
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	33	46	54



Analytical Report Number: 23-45210

Project / Site name: Bridge Road

Your Order No: G1753

Lab Sample Number	2749304	2749305	2749306
Sample Reference	Plot 47B SS	Plot 50B TS	Block C15/1 SS
Sample Number	ES1	ES2	ES3
Depth (m)	0.50	0.40	0.20
Date Sampled	14/07/2023	14/07/2023	14/07/2023
Time Taken	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status

**Monoaromatics & Oxygenates**

Benzene	µg/kg	5	MCERTS	< 5.0~	< 5.0	< 5.0~
Toluene	µg/kg	5	MCERTS	< 5.0~	< 5.0	< 5.0~
Ethylbenzene	µg/kg	5	MCERTS	< 5.0~	< 5.0	< 5.0~
p & m-xylene	µg/kg	5	MCERTS	< 5.0~	< 5.0	< 5.0~
o-xylene	µg/kg	5	MCERTS	< 5.0~	< 5.0	< 5.0~
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0~	< 5.0	< 5.0~

**Petroleum Hydrocarbons**

TPH-CWG - Aliphatic >EC5 - EC6 <sub>HS_1D_AL</sub>	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10
TPH-CWG - Aliphatic >EC6 - EC8 <sub>HS_1D_AL</sub>	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10
TPH-CWG - Aliphatic >EC8 - EC10 <sub>HS_1D_AL</sub>	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10
TPH-CWG - Aliphatic >EC10 - EC12 <sub>EH_CU_1D_AL</sub>	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 <sub>EH_CU_1D_AL</sub>	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 <sub>EH_CU_1D_AL</sub>	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 <sub>EH_CU_1D_AL</sub>	mg/kg	8	MCERTS	< 8.0	< 8.0	9.7
TPH-CWG - Aliphatic (EC5 - EC35) <sub>EH_CU+HS_1D_AL</sub>	mg/kg	10	NONE	< 10	< 10	< 10

TPH-CWG - Aromatic >EC5 - EC7 <sub>HS_1D_AR</sub>	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10
TPH-CWG - Aromatic >EC7 - EC8 <sub>HS_1D_AR</sub>	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10
TPH-CWG - Aromatic >EC8 - EC10 <sub>HS_1D_AR</sub>	mg/kg	0.1	NONE	< 0.10	< 0.10	< 0.10
TPH-CWG - Aromatic >EC10 - EC12 <sub>EH_CU_1D_AR</sub>	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 <sub>EH_CU_1D_AR</sub>	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 <sub>EH_CU_1D_AR</sub>	mg/kg	10	MCERTS	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 <sub>EH_CU_1D_AR</sub>	mg/kg	10	MCERTS	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35) <sub>EH_CU+HS_1D_AR</sub>	mg/kg	10	NONE	< 10	< 10	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



Analytical Report Number : 23-45210

Project / Site name: Bridge Road

\* 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 *
2749304	Plot 47B SS	ES1	0.5	Brown sand with gravel.
2749305	Plot 50B TS	ES2	0.4	Brown sand with gravel.
2749306	Block C15/1 SS	ES3	0.2	Brown loam and sand with gravel and vegetation.

Analytical Report Number : 23-45210  
 Project / Site name: Bridge Road

Water matrix abbreviations:  
 Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/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
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-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
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (Fast Kilbride).

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Analytical Report Number : 23-45210  
 Project / Site name: Bridge Road

Water matrix abbreviations:  
 Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
----------------------	-------------------------------	-----------------------------	---------------	--------------------	----------------------

### Information in Support of Analytical Results

#### List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

- - Quality control surrogate recovery outside of limits, other checks applied prior to reporting the data have been accepted. The result should be considered as being deviating and may be compromised.