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Ref: 12-123 V5  
Date: 4<sup>th</sup> July 2022

**Countryside Properties**  
301 Bridgewater Place  
Birchwood Park  
Birchwood  
Warrington  
WA3 6XG

BY email

## **GARDEN VALIDATION BELLE VUE PLOTS 244-247**

An E3P engineer attended the above site to validate the thickness of the cover system that had been placed within the rear garden of plots 244-247 at Belle Vue.

In total 4 No. hand excavated trial pits were advanced with the resulting strata detailed to the rear of this letter.

All trial pits were completed to highlight the required cover system of 600mm (150mm topsoil and 450mm subsoil).

E3P can confirm that our independent validation demonstrates that all gardens have been installed with 150mm of certified topsoil and at least 450mm subsoil in accordance with the NHBC requirements for a site of this nature.

### **TOPSOIL**

E3P attended site on 6<sup>th</sup> June 2022 to collect three samples of stockpiled topsoil deposits which were analysed in accordance with the E3P Remediation Strategy. Chemical analysis confirmed that these topsoil deposits were chemically suitable for use within the proposed garden areas.

Chemical analysis results are included within lab report 22-63323 (attached to this letter).

### **SUBSOIL**

E3P attended site on 6<sup>th</sup> June 2022 to collect three samples of the stockpiled subsoil deposits which were analysed in accordance with the E3P Remediation Strategy. Chemical analysis confirmed that these subsoil deposits were chemically suitable for use within the proposed garden areas.

Chemical analysis results are included within lab report 22-63323 (attached to this letter).



Cover system validation photographs are enclosed within this letter.

I trust this information is satisfactory to your requirements, and should I be able to be of any further assistance, please do not hesitate to contact me.

Yours sincerely,

**For and on behalf of E3P Ltd**

**Olivia Jackson**  
**Senior Geoenvironmental Consultant**



## Site: Belle Vue Greyhound Stadium

|                                 |                          |
|---------------------------------|--------------------------|
| Date: 29-06-2022                | Project Number: 12-123   |
| Project Manager: O. Jackson     | E3P Engineer: T. Preston |
| Plot Numbers Validated: 244-247 |                          |

### Chemical Laboratory Analysis

Analysis for topsoil and subsoil undertaken by I2 Analytical Laboratory using UKAS accredited methods where applicable.

Chemical analysis suite comprises heavy metals, sulphates, phenols, speciated Polycyclic Aromatic Hydrocarbons (PAHs), speciated and total Petroleum Hydrocarbons (TPH) and asbestos.

Sampling frequency in accordance with the agreed Remediation Strategy. Laboratory analysis certificates attached to this validation certificate.

|                                                        | Topsoil | Subsoil |
|--------------------------------------------------------|---------|---------|
| <i>Chemical analysis confirmed materials suitable?</i> | Pass    | Pass    |
| <i>Further Comments</i>                                | N/A     | N/A     |



|                                                                                     |           |                                                                                      |
|-------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------|
| Plot No: 244                                                                        |           |                                                                                      |
| Depth of Strata (m bgl)                                                             | 0.00-0.15 | Validated TOPSOIL                                                                    |
|                                                                                     | 0.15-0.60 | Validated SUBSOIL                                                                    |
| Depth of Cover System Materials                                                     |           | Depth of Cover System Materials                                                      |
|   |           |   |
| Depth of Cover System at Ground Level                                               |           | Depth of Cover System in Relation to Plot                                            |
|  |           |  |



Plot No: 245

|                         |           |                   |
|-------------------------|-----------|-------------------|
| Depth of Strata (m bgl) | 0.00-0.15 | Validated TOPSOIL |
|                         | 0.15-0.60 | Validated SUBSOIL |

Depth of Cover System Materials



Depth of Cover System Materials



Depth of Cover System at Ground Level



Depth of Cover System in Relation to Plot



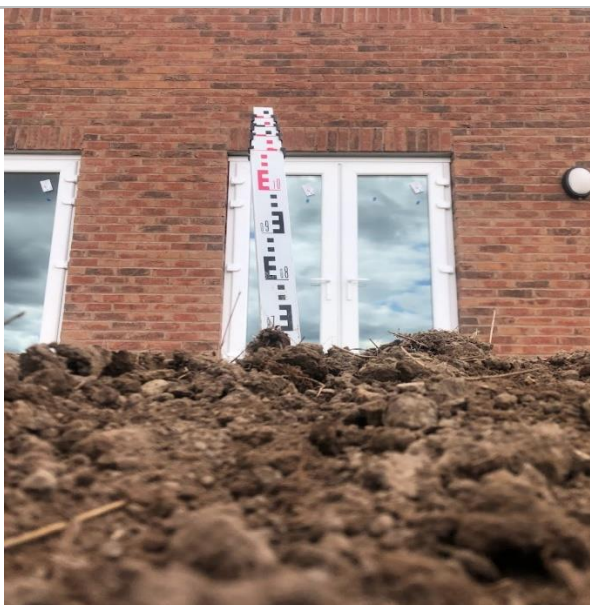
Plot No: 246

|                         |           |                   |
|-------------------------|-----------|-------------------|
| Depth of Strata (m bgl) | 0.00-0.15 | Validated TOPSOIL |
|                         | 0.15-0.60 | Validated SUBSOIL |

*Depth of Cover System Materials*



*Depth of Cover System at Ground Level*



*Depth of Cover System Materials*



*Depth of Cover System in Relation to Plot*



**Plot No: 247**

|                                |           |                   |
|--------------------------------|-----------|-------------------|
| <b>Depth of Strata (m bgl)</b> | 0.00-0.15 | Validated TOPSOIL |
|                                | 0.15-0.60 | Validated SUBSOIL |

**Depth of Cover System Materials**



**Depth of Cover System Materials**



**Depth of Cover System at Ground Level**



**Depth of Cover System in Relation to Plot**



**Olivia Jackson**

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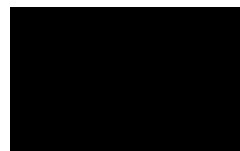
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## **Analytical Report Number : 22-63323**

|                             |                |                                                        |            |
|-----------------------------|----------------|--------------------------------------------------------|------------|
| <b>Project / Site name:</b> | Belle Vue      | <b>Samples received on:</b>                            | 07/06/2022 |
| <b>Your job number:</b>     | 12 123         | <b>Samples instructed on/<br/>Analysis started on:</b> | 08/06/2022 |
| <b>Your order number:</b>   | 001821         | <b>Analysis completed by:</b>                          | 15/06/2022 |
| <b>Report Issue Number:</b> | 1              | <b>Report issued on:</b>                               | 15/06/2022 |
| <b>Samples Analysed:</b>    | 6 soil samples |                                                        |            |

**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: 22-63323  
 Project / Site name: Belle Vue  
 Your Order No: 001821

| Lab Sample Number                       |       |                    |                         | 2304896       | 2304897       | 2304898       | 2304899       | 2304900       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|---------------|---------------|
| Sample Reference                        |       |                    |                         | TS101         | TS102         | TS103         | SS101         | SS102         |
| 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                            |       |                    |                         | 06/06/2022    | 06/06/2022    | 06/06/2022    | 06/06/2022    | 06/06/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |               |               |
| Stone Content                           | %     | 0.1                | NONE                    | < 0.1         | < 0.1         | < 0.1         | < 0.1         | < 0.1         |
| Moisture Content                        | %     | 0.01               | NONE                    | 27            | 16            | 22            | 23            | 21            |
| Total mass of sample received           | kg    | 0.001              | NONE                    | 0.3           | 0.3           | 0.3           | 0.3           | 0.3           |

|                     |      |     |           |              |              |              |              |              |
|---------------------|------|-----|-----------|--------------|--------------|--------------|--------------|--------------|
| Asbestos in Soil    | Type | N/A | ISO 17025 | Not-detected | Not-detected | Not-detected | Not-detected | Not-detected |
| Asbestos Analyst ID | N/A  | N/A | N/A       | MDA          | MDA          | MDA          | MDA          | MDA          |

#### General Inorganics

|                                                                  |          |         |        |       |       |       |       |       |
|------------------------------------------------------------------|----------|---------|--------|-------|-------|-------|-------|-------|
| pH - Automated                                                   | pH Units | N/A     | MCERTS | 6.8   | 7.3   | 7.1   | 7.4   | 7.2   |
| Total Cyanide                                                    | mg/kg    | 1       | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Total Sulphate as SO <sub>4</sub>                                | mg/kg    | 50      | MCERTS | 740   | 610   | 890   | 580   | 510   |
| Water Soluble SO <sub>4</sub> (2:1 Leach. Equiv.) 1hr extraction | g/l      | 0.00125 | MCERTS | 0.093 | 0.12  | 0.14  | 0.091 | 0.086 |
| Water Soluble SO <sub>4</sub> (2:1 Leach. Equiv.) 1hr extraction | mg/kg    | 2.5     | MCERTS | 190   | 240   | 270   | 180   | 170   |
| Water Soluble SO <sub>4</sub> (2:1 Leach. Equiv.) 1hr extraction | mg/l     | 1.25    | MCERTS | 93.1  | 120   | 137   | 91.1  | 85.6  |
| Sulphide                                                         | mg/kg    | 1       | MCERTS | 2.1   | 1.3   | 12    | 4.5   | 4.2   |
| Total Sulphur                                                    | mg/kg    | 50      | MCERTS | 590   | 550   | 530   | 320   | 360   |
| Total Organic Carbon (TOC) - Automated                           | %        | 0.1     | MCERTS | 3.3   | 2     | 2.7   | 1.4   | 1.6   |

#### Total Phenols

|                            |       |   |        |       |       |       |       |       |
|----------------------------|-------|---|--------|-------|-------|-------|-------|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
|----------------------------|-------|---|--------|-------|-------|-------|-------|-------|

#### Speciated PAHs

|                        |       |      |        |        |        |        |        |        |
|------------------------|-------|------|--------|--------|--------|--------|--------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | 0.21   | < 0.05 | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS | 0.44   | 0.5    | 1      | 0.75   | 0.51   |
| Anthracene             | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | 0.23   | 0.2    | < 0.05 |
| Fluoranthene           | mg/kg | 0.05 | MCERTS | 0.51   | 0.6    | 1      | 0.78   | 0.86   |
| Pyrene                 | mg/kg | 0.05 | MCERTS | 0.42   | 0.54   | 0.82   | 0.64   | 0.76   |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS | 0.26   | 0.3    | 0.45   | 0.38   | 0.53   |
| Chrysene               | mg/kg | 0.05 | MCERTS | 0.2    | 0.27   | 0.39   | 0.29   | 0.37   |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | 0.35   | 0.27   | 0.38   |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | 0.2    | 0.15   | 0.21   |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | 0.39   | 0.29   | 0.34   |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | 0.2    | < 0.05 | < 0.05 |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS | < 0.05 | < 0.05 | 0.21   | < 0.05 | < 0.05 |

#### Total PAH

|                             |       |     |        |      |      |      |      |      |
|-----------------------------|-------|-----|--------|------|------|------|------|------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | MCERTS | 1.83 | 2.21 | 5.47 | 3.75 | 3.96 |
|-----------------------------|-------|-----|--------|------|------|------|------|------|

Analytical Report Number: 22-63323  
Project / Site name: Belle Vue  
Your Order No: 001821

|                                         |       |                    |                         |               |               |               |               |               |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|---------------|---------------|---------------|---------------|
| Lab Sample Number                       |       |                    |                         | 2304896       | 2304897       | 2304898       | 2304899       | 2304900       |
| Sample Reference                        |       |                    |                         | TS101         | TS102         | TS103         | SS101         | SS102         |
| 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                            |       |                    |                         | 06/06/2022    | 06/06/2022    | 06/06/2022    | 06/06/2022    | 06/06/2022    |
| Time Taken                              |       |                    |                         | None Supplied | None Supplied | None Supplied | None Supplied | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |               |               |               |               |

#### Heavy Metals / Metalloids

|                                   |       |     |        |       |       |       |       |       |
|-----------------------------------|-------|-----|--------|-------|-------|-------|-------|-------|
| Arsenic (aqua regia extractable)  | mg/kg | 1   | MCERTS | 9.4   | 8.8   | 9.8   | 7.4   | 6.9   |
| Cadmium (aqua regia extractable)  | mg/kg | 0.2 | MCERTS | < 0.2 | < 0.2 | < 0.2 | < 0.2 | < 0.2 |
| Chromium (hexavalent)             | mg/kg | 1.8 | MCERTS | < 1.8 | < 1.8 | < 1.8 | < 1.8 | < 1.8 |
| Chromium (aqua regia extractable) | mg/kg | 1   | MCERTS | 35    | 32    | 36    | 45    | 47    |
| Copper (aqua regia extractable)   | mg/kg | 1   | MCERTS | 19    | 20    | 23    | 28    | 26    |
| Lead (aqua regia extractable)     | mg/kg | 1   | MCERTS | 26    | 23    | 27    | 32    | 36    |
| Mercury (aqua regia extractable)  | mg/kg | 0.3 | MCERTS | < 0.3 | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| Nickel (aqua regia extractable)   | mg/kg | 1   | MCERTS | 22    | 21    | 24    | 29    | 31    |
| Selenium (aqua regia extractable) | mg/kg | 1   | MCERTS | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Zinc (aqua regia extractable)     | mg/kg | 1   | MCERTS | 52    | 46    | 57    | 85    | 92    |

#### Petroleum Hydrocarbons

|                                                     |       |     |        |       |       |       |       |       |
|-----------------------------------------------------|-------|-----|--------|-------|-------|-------|-------|-------|
| TPH (C5 - C6) <small>HS_1D_TOTAL</small>            | mg/kg | 1   | NONE   | < 1.0 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| TPH (C6 - C8) <small>HS_1D_TOTAL</small>            | mg/kg | 0.1 | MCERTS | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| TPH (C8 - C10) <small>HS_1D_TOTAL</small>           | mg/kg | 0.1 | MCERTS | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 |
| TPH (C10 - C12) <small>EH_CU_1D_TOTAL</small>       | mg/kg | 2   | MCERTS | < 2.0 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| TPH (C12 - C16) <small>EH_CU_1D_TOTAL</small>       | mg/kg | 4   | MCERTS | < 4.0 | < 4.0 | < 4.0 | < 4.0 | < 4.0 |
| TPH (C16 - C21) <small>EH_CU_1D_TOTAL</small>       | mg/kg | 1   | MCERTS | < 1.0 | < 1.0 | 8.1   | < 1.0 | < 1.0 |
| TPH (C21 - C35) <small>EH_CU_1D_TOTAL</small>       | mg/kg | 1   | MCERTS | < 1.0 | < 1.0 | 22    | < 1.0 | < 1.0 |
| TPH (C35 - C40) <small>EH_CU_1D_TOTAL</small>       | mg/kg | 10  | MCERTS | < 10  | < 10  | < 10  | < 10  | < 10  |
| TPH Total C5 - C40 <small>EH_CU+HS_1D_TOTAL</small> | mg/kg | 10  | MCERTS | < 10  | < 10  | 30    | < 10  | < 10  |

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

Analytical Report Number: 22-63323  
Project / Site name: Belle Vue  
Your Order No: 001821

| Lab Sample Number                       |       |                    |                         | 2304901       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|
| Sample Reference                        |       |                    |                         | SS103         |
| Sample Number                           |       |                    |                         | None Supplied |
| Depth (m)                               |       |                    |                         | None Supplied |
| Date Sampled                            |       |                    |                         | 06/06/2022    |
| Time Taken                              |       |                    |                         | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |
| Stone Content                           | %     | 0.1                | NONE                    | < 0.1         |
| Moisture Content                        | %     | 0.01               | NONE                    | 18            |
| Total mass of sample received           | kg    | 0.001              | NONE                    | 0.3           |

|                     |      |     |           |              |
|---------------------|------|-----|-----------|--------------|
| Asbestos in Soil    | Type | N/A | ISO 17025 | Not-detected |
| Asbestos Analyst ID | N/A  | N/A | N/A       | MDB          |

#### General Inorganics

|                                                                  |          |         |        |       |
|------------------------------------------------------------------|----------|---------|--------|-------|
| pH - Automated                                                   | pH Units | N/A     | MCERTS | 7.2   |
| Total Cyanide                                                    | mg/kg    | 1       | MCERTS | < 1.0 |
| Total Sulphate as SO <sub>4</sub>                                | mg/kg    | 50      | MCERTS | 320   |
| Water Soluble SO <sub>4</sub> (2:1 Leach. Equiv.) 1hr extraction | g/l      | 0.00125 | MCERTS | 0.088 |
| Water Soluble SO <sub>4</sub> (2:1 Leach. Equiv.) 1hr extraction | mg/kg    | 2.5     | MCERTS | 180   |
| Water Soluble SO <sub>4</sub> (2:1 Leach. Equiv.) 1hr extraction | mg/l     | 1.25    | MCERTS | 88    |
| Sulphide                                                         | mg/kg    | 1       | MCERTS | 1.9   |
| Total Sulphur                                                    | mg/kg    | 50      | MCERTS | 280   |
| Total Organic Carbon (TOC) - Automated                           | %        | 0.1     | MCERTS | 1.2   |

#### Total Phenols

|                            |       |   |        |       |
|----------------------------|-------|---|--------|-------|
| Total Phenols (monohydric) | mg/kg | 1 | MCERTS | < 1.0 |
|----------------------------|-------|---|--------|-------|

#### Speciated PAHs

|                        |       |      |        |        |
|------------------------|-------|------|--------|--------|
| Naphthalene            | mg/kg | 0.05 | MCERTS | < 0.05 |
| Acenaphthylene         | mg/kg | 0.05 | MCERTS | < 0.05 |
| Acenaphthene           | mg/kg | 0.05 | MCERTS | < 0.05 |
| Fluorene               | mg/kg | 0.05 | MCERTS | < 0.05 |
| Phenanthrene           | mg/kg | 0.05 | MCERTS | 0.82   |
| Anthracene             | mg/kg | 0.05 | MCERTS | 0.21   |
| Fluoranthene           | mg/kg | 0.05 | MCERTS | 0.92   |
| Pyrene                 | mg/kg | 0.05 | MCERTS | 0.79   |
| Benzo(a)anthracene     | mg/kg | 0.05 | MCERTS | 0.37   |
| Chrysene               | mg/kg | 0.05 | MCERTS | 0.42   |
| Benzo(b)fluoranthene   | mg/kg | 0.05 | MCERTS | 0.44   |
| Benzo(k)fluoranthene   | mg/kg | 0.05 | MCERTS | 0.13   |
| Benzo(a)pyrene         | mg/kg | 0.05 | MCERTS | 0.33   |
| Indeno(1,2,3-cd)pyrene | mg/kg | 0.05 | MCERTS | < 0.05 |
| Dibenz(a,h)anthracene  | mg/kg | 0.05 | MCERTS | < 0.05 |
| Benzo(ghi)perylene     | mg/kg | 0.05 | MCERTS | < 0.05 |

#### Total PAH

|                             |       |     |        |      |
|-----------------------------|-------|-----|--------|------|
| Speciated Total EPA-16 PAHs | mg/kg | 0.8 | MCERTS | 4.43 |
|-----------------------------|-------|-----|--------|------|

Analytical Report Number: 22-63323

Project / Site name: Belle Vue

Your Order No: 001821

| Lab Sample Number                       |       |                    |                         | 2304901       |
|-----------------------------------------|-------|--------------------|-------------------------|---------------|
| Sample Reference                        |       |                    |                         | SS103         |
| Sample Number                           |       |                    |                         | None Supplied |
| Depth (m)                               |       |                    |                         | None Supplied |
| Date Sampled                            |       |                    |                         | 06/06/2022    |
| Time Taken                              |       |                    |                         | None Supplied |
| Analytical Parameter<br>(Soil Analysis) | Units | Limit of detection | Accreditation<br>Status |               |
| <b>Heavy Metals / Metalloids</b>        |       |                    |                         |               |
| Arsenic (aqua regia extractable)        | mg/kg | 1                  | MCERTS                  | 7.5           |
| Cadmium (aqua regia extractable)        | mg/kg | 0.2                | MCERTS                  | < 0.2         |
| Chromium (hexavalent)                   | mg/kg | 1.8                | MCERTS                  | < 1.8         |
| Chromium (aqua regia extractable)       | mg/kg | 1                  | MCERTS                  | 50            |
| Copper (aqua regia extractable)         | mg/kg | 1                  | MCERTS                  | 29            |
| Lead (aqua regia extractable)           | mg/kg | 1                  | MCERTS                  | 28            |
| Mercury (aqua regia extractable)        | mg/kg | 0.3                | MCERTS                  | < 0.3         |
| Nickel (aqua regia extractable)         | mg/kg | 1                  | MCERTS                  | 34            |
| Selenium (aqua regia extractable)       | mg/kg | 1                  | MCERTS                  | < 1.0         |
| Zinc (aqua regia extractable)           | mg/kg | 1                  | MCERTS                  | 91            |

#### Petroleum Hydrocarbons

|                                                     |       |     |        |       |
|-----------------------------------------------------|-------|-----|--------|-------|
| TPH (C5 - C6) <small>HS_1D_TOTAL</small>            | mg/kg | 1   | NONE   | < 1.0 |
| TPH (C6 - C8) <small>HS_1D_TOTAL</small>            | mg/kg | 0.1 | MCERTS | < 0.1 |
| TPH (C8 - C10) <small>HS_1D_TOTAL</small>           | mg/kg | 0.1 | MCERTS | < 0.1 |
| TPH (C10 - C12) <small>EH_CU_1D_TOTAL</small>       | mg/kg | 2   | MCERTS | < 2.0 |
| TPH (C12 - C16) <small>EH_CU_1D_TOTAL</small>       | mg/kg | 4   | MCERTS | < 4.0 |
| TPH (C16 - C21) <small>EH_CU_1D_TOTAL</small>       | mg/kg | 1   | MCERTS | < 1.0 |
| TPH (C21 - C35) <small>EH_CU_1D_TOTAL</small>       | mg/kg | 1   | MCERTS | < 1.0 |
| TPH (C35 - C40) <small>EH_CU_1D_TOTAL</small>       | mg/kg | 10  | MCERTS | < 10  |
| TPH Total C5 - C40 <small>EH_CU+HS_1D_TOTAL</small> | mg/kg | 10  | MCERTS | < 10  |

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

**Analytical Report Number : 22-63323**

**Project / Site name: Belle Vue**

\* 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 *                            |
|-------------------|------------------|---------------|---------------|-------------------------------------------------|
| 2304896           | TS101            | None Supplied | None Supplied | Brown clay and loam with gravel and vegetation. |
| 2304897           | TS102            | None Supplied | None Supplied | Brown clay and sand with gravel and vegetation. |
| 2304898           | TS103            | None Supplied | None Supplied | Brown clay and sand with gravel and vegetation. |
| 2304899           | SS101            | None Supplied | None Supplied | Brown clay and sand with gravel and vegetation. |
| 2304900           | SS102            | None Supplied | None Supplied | Brown clay and sand with gravel.                |
| 2304901           | SS103            | None Supplied | None Supplied | Brown clay and sand with gravel and vegetation. |

**Analytical Report Number : 22-63323**

**Project / Site name: Belle Vue**

**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 |
|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|---------------|--------------------|----------------------|
| Sulphate, water soluble, in soil (16hr extraction) | Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).              | In house method.                                                                                                | L038-PL       | D                  | MCERTS               |
| Metals in soil by ICP-OES                          | Determination of metals in soil by aqua-regia digestion followed by ICP-OES.                                                                                           | In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.                            | L038-PL       | D                  | MCERTS               |
| 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            |
| 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               |
| Sulphide in soil                                   | Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode. | In-house method                                                                                                 | L010-PL       | D                  | MCERTS               |
| Total sulphate (as SO <sub>4</sub> in soil)        | Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.                                                                                | In house method.                                                                                                | L038-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 Sulphur in soil                              | Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.                                                   | In house method.                                                                                                | L038-PL       | D                  | MCERTS               |
| 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               |
| Total organic carbon (Automated) in soil           | Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.                                          | In house method.                                                                                                | L009-PL       | D                  | MCERTS               |
| TPH in (Soil)                                      | Determination of TPH bands by HS-GC-MS/GC-FID                                                                                                                          | In-house method, TPH with carbon banding and silica gel split/cleanup.                                          | L076-PL       | D                  | MCERTS               |
| Hexavalent chromium in soil                        | Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazine followed by colorimetry.                                      | In-house method                                                                                                 | L080-PL       | W                  | MCERTS               |
| Sulphate, water soluble, in soil (1hr extraction)  | Sulphate, water soluble, in soil (1hr extraction)                                                                                                                      | In-house method                                                                                                 | L038-PL       | D                  | MCERTS               |

Analytical Report Number : 22-63323

Project / Site name: Belle Vue

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 |
|----------------------|-------------------------------|-----------------------------|---------------|--------------------|----------------------|
|----------------------|-------------------------------|-----------------------------|---------------|--------------------|----------------------|

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     |