# SOAKAWAY INFILTRATION TEST RESULTS

BRE 365 method



| Project Name: | Proposed Industrial Extension, Goat Mill Road |
|---------------|---|
|               |   |

Project Ref: 6665b

| Test Location: | TP1/SA1 |
|----------------|---------|
| Fill Number:   | 1       |

#### Test results:

### Pit Dimensions (m)

| Test results: |             |  |  |  |  |
|---------------|-------------|--|--|--|--|
| Time          | Water Level |  |  |  |  |
| (mins)        | (m bgl)     |  |  |  |  |
| 0             | 0.52        |  |  |  |  |
| 1             | 0.56        |  |  |  |  |
| 3             | 0.60        |  |  |  |  |
| 5             | 0.62        |  |  |  |  |
| 10            | 0.65        |  |  |  |  |
| 19            | 0.68        |  |  |  |  |
| 80            | 0.75        |  |  |  |  |
| 175           | 0.79        |  |  |  |  |
| 380           | 0.83        |  |  |  |  |
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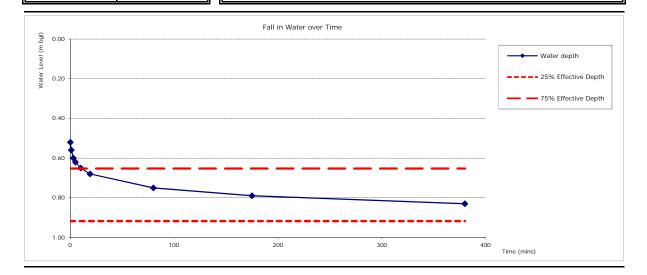
| length | 2.00 |
|--------|------|
| width  | 0.35 |
| depth  | 1.05 |

Assumed Invert Level (m bgl) 0.52

| Ground Conditions: |  |  |
|--------------------|--|--|
| 0.0 - 0.13         | Soft dark brown slightly gravelly slightly sandy organic CLAY with roots. (PLACED        |  |
|                    | TOPSOIL)   |  |
| 0.13-0.55          | Soft to firm dark brown slightly gravelly slightly sandy CLAY with a low cobble content. |  |
|                    | Cobbles and gravel are angular to rounded and of mudstone with some coal. (MADE          |  |
|                    | GROUND)  |  |
| 0.55-1.05          | Extremely weak grey MUDSTONE recovered as angular fragments of sizes between             |  |
|                    | gravel and cobbles. (GRADE B/C SOUTH WALES LOWER COAL MEASURES                           |  |
|                    | FORMATION)   |  |

#### Remarks:

- 1. Testing undertaken in general accordance with BRE Digest 365:2007
- 2. Trial pit was not filled with aggregate for test.



## Soil Infiltration Rate (m/sec)

$$f = \frac{v_{p75-25}}{\alpha_{p50} \times t_{p75-25}}$$

| V <sub>p75 - 25</sub> | Effective depth storage volume of water in the trial pit between 75% and 25% effective depth     |        |
|-----------------------|--|--------|
| α <sub>p50</sub>      | The internal surface area of the trial pit up to 50% effective depth and including the base area | 1.9455 |
| <sup>t</sup> p75 - 25 | The time for the water level to fall from 75% to 25% effective depth                             | n/a    |

Soil Infiltration Rate (m/sec)

f 0.186 no value

f test failed