



CLIENT: Soilco Materials Investigations (Pty) Ltd  
 ADDRESS: 25 Westmead Rd,  
 Westmead, Durban,  
 3610  
 ATTENTION: Mr B Govender  
 PROJECT: Geozone - The Square of Thornville

**TEST REPORT REFERENCE NUMBER: GEO-716 (64075)**

**Dear Sir/Madam,**

Enclosed herewith, please find the original reports pertaining to the above-mentioned project.

|                                  |                          |
|----------------------------------|--------------------------|
| Date Received                    | <b>06-12-2022</b>        |
| Date Tested                      | 07-12-2022 to 12-12-2022 |
| Sample Location                  | See Reports              |
| Sampling Method                  | N/A                      |
| Sample Condition                 | N/A                      |
| Sampling Environmental Condition | N/A                      |
| Sampler(s) Name                  | Client                   |
| Total Number of Pages            | 2                        |

**Test Carried Out**

|   |   |                                     |
|---|---|-------------------------------------|
| Consolidated-Drained Triaxial Compression Test With The       | BS 1377: Part8:1990 including BS 1377: Part1:1990 |                                     |
| Consolidated-Undrained Triaxial Compression Test With The     | BS 1377: Part8:1990 including BS 1377: Part1:1990 |                                     |
| Determination of The Undrained Shear Strength In A Triaxial   | BS 1377: Part7:1990 including BS 1377: Part1:1990 |                                     |
| Determination of Shear Strength By Direct Shear               | BS 1377: Part7:1990 including BS 1377: Part1:1990 |                                     |
| Determination Of The One-Dimensional Consolidation Properties | BS 1377: Part5:1990 including BS 1377: Part1:1990 |                                     |
| K.H. Head - Falling Head Permeability                         | BS 1377: Part5:1990 including BS 1377: Part1:1990 | <input checked="" type="checkbox"/> |

- Tick denotes tests that were carried out.

**We would like to take this opportunity of thanking you for your continued support.  
 Should you have any queries please do not hesitate to contact me.**

**Yours faithfully**

**Bradley Hariram for Geosure (Pty) Ltd.**

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



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**Client** : Soilco Materials Investigations (Pty) Ltd  
**Project** : Geozone - The Square of Thornville  
**Attention** : Mr B Govender

**Job No** : GEO-638  
**Your Ref.** : -  
**Date Reported** : 13-Dec-22

**PERMEABILITY**

**Falling Head Permeability Test**

**Tested By:** Ms S. Naicker

**Date Tested:** 07-12-2022 to 12-12-2022

**TEST REPORT**

| Sample Number | Depth (m) | Material Description            | Field Number    | Initial Moisture Content (%) | Initial Bulk Density (Mg/m3) | Specific Gravity | Degree Of Permeability | Coefficient of Permeability <i>k</i> (cm/s)              |
|---------------|-----------|---------------------------------|-----------------|------------------------------|------------------------------|------------------|------------------------|--|
| 2522          | 1.0-2.0m  | Reddish orange sandy silty CLAY | P2771 @ 90% MOD | 26.33%                       | 1.667                        | 2.61             | Low to Very Low        | 2.21 x 10 <sup>-5</sup><br>2.21 x 10 <sup>-7</sup> (m/s) |
|               |           |                                 |                 |                              |                              |                  |                        |  |
|               |           |                                 |                 |                              |                              |                  |                        |  |
|               |           |                                 |                 |                              |                              |                  |                        |  |
|               |           |                                 |                 |                              |                              |                  |                        |  |
|               |           |                                 |                 |                              |                              |                  |                        |  |

**CLASSIFICATION OF SOIL ACCORDING TO PERMEABILITY**

| Degree of Permeability  | Range of Coefficient of Permeability, <i>k</i> (m/s) |
|-------------------------|--|
| High                    | Greater than 10 <sup>-3</sup>                        |
| Medium                  | 10 <sup>-3</sup> - 10 <sup>-5</sup>                  |
| Low                     | 10 <sup>-5</sup> - 10 <sup>-7</sup>                  |
| Very Low                | 10 <sup>-7</sup> - 10 <sup>-9</sup>                  |
| Practically Impermeable | Less than 10 <sup>-9</sup>                           |

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**NOTE:** Test specimens were Recompactd to 90 MOD.  
 MOD Supplied by Client.