



# **REPORT**

## **Level 1 Geotechnical Testing and Inspection Authority Services**

**Riverfield Estate Stage 7, Lots 701 to 745  
Clyde**

**Prepared for:**

**Grosvenor Lodge Pty Ltd**

**19 January 2023**

**Our Ref: 1016363.007.v1**

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## Document Control

<b>Title: Level One Inspection and Testing Services</b>					
<b>Date</b>	<b>Version</b>	<b>Description</b>	<b>Prepared by:</b>	<b>Reviewed by:</b>	<b>Authorised by:</b>
19 January 2023	V1	1016363.007 Level One Report Riverfield Estate Stage 7	SP	RHB	TJC

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## 1 Introduction

As part of the construction of the Riverfield Estate development in Clyde, Chadwick Geotechnics Pty Ltd (Chadwick Geotechnics), was engaged by Grosvenor Lodge Pty Ltd, to provide Level 1 Geotechnical Inspection and Testing Authority (GITA) services for the earthworks conducted within Stage 7 of the Estate during construction.

Level 1 GITA services as defined in AS3798-2007 "Guidelines on Earthworks for Commercial and Residential Development," requires full time inspection and field and laboratory testing of earthworks in accordance with AS1289 "Methods of Testing Soils for Engineering Purposes."

## 2 Project details

The Riverfield Estate is located in Clyde, Stage 7 is located to the East of Stage 3 and South of Stage 8 between Overture Street and Fairweather Street. The Stage 7 site is being developed as both a residential development and commercial development. This report covers the residential area only.

The included works are shown on the Site Plans in **Appendices A**.

### 2.2 Fill Specifications

A summary of the specification is shown below:

- All filling in excess of 300mm depth shall be constructed to specifications satisfying the requirements of AS 3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments".
  - All filling works shall be undertaken with supervision to the standard detailed as "Level 1 Inspection and Testing" in AS 3798-2007, such that the supervisor will issue a notice detailing that the works comply with the specifications and drawings.
  - The fill soils to comply with the 'Suitable Material' in accordance with Section 4.4 of the AS3798-2007, and the following:
    - Maximum particle size of 150mm.
    - Particles over 37.5mm diameter not to exceed 20% of the material.
    - Organic soils, topsoil, silts, or soils containing organic matter, wood, plastics, metal or other deleterious materials are not acceptable.
  - Subgrade to be proof rolled in presence of the Level 1 Inspector prior to the placement of engineered fill.
  - Fill to be compacted in near horizontal layers.
  - Residential areas compaction to achieve a ratio of at least 95% Standard maximum dry density (SMDD).
  - Commercial areas compaction to achieve a ratio of at least 98% SMDD.
  - Frequency of testing to be in accordance with Table 8.1 of AS3798-2007.
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## 2.3 Roles

The organisations and their roles are presented in Table 2.1 below.

**Table 2.1 Project roles**

<b>Role</b>	<b>Organisation</b>
Developer	Grosvenor Lodge Pty Ltd
Geotechnical Inspection and Testing Authority (GITA)	Chadwick Geotechnics Pty Ltd
Civil Designer	Charlton Degg Consultants Pty Ltd
Earthworks Contractor	Brown Property Group Pty Ltd

## 2.4 Source of material

The material used on site was imported from local sources.

## 2.5 General

The inspection and testing of earthworks have been carried out in accordance with AS3798-2007, 'Guidelines on earthworks for commercial and residential developments', with a frequency of field density tests as per a Type 1 project (large scale operation). Compaction control laboratory testing was undertaken within Chadwick Geotechnics NATA accredited laboratories in accordance with AS1289 'Methods of Testing Soils for Engineering Purposes'.

## 2.6 Subgrade inspection

Prior to fill being placed the subgrade was inspected. The inspections were performed in accordance with the Level 1 guidelines presented in AS 3798–2007 Section 5.5. The stripped surface was stripped to natural clay, and the area was found to be firm and free of vegetation and other deleterious material. All pre-existing uncontrolled fill was removed prior to the placement of engineered fill to achieve the design levels.

## 2.7 Earthwork supervision

Full time Level 1 inspection and testing of the Stage 7 filling operations commenced on 4 February 2021 and was completed on 7 April 2023. During this period Chadwick Geotechnics was on site at all times, (except when there were no earthworks) and observed the earthworks, the placing of fill including the supply of material, conditioning of material (moisture conditioning and oversize removal), placement and compaction of the fill material.

All fill material was placed in lift sequences and Chadwick Geotechnics verified that the surface of the stripped subgrade and additional lifts were thoroughly scarified, and moisture conditioned prior to placement of additional layers to prevent delamination at the layer interface.

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Below are two photographs of typical earthwork operations completed during earthworks, See Photographs 2.7.1 and 2.7.2 below.

**Figure 1.** Photograph of the material used on site



Photograph 2.7.1:

General Site Photo

Photograph 2.7.2:

Material Placement

## 2.8 Earthwork equipment

The fill was placed and compacted using vibrating Pad Foot rollers. Water trucks with water cannons attached were used to moisture condition the soil materials. The layer thicknesses were controlled using earthwork machinery with built-in GPS systems.

## 2.9 Fill material

Material used for the construction of the fill comprised of local gravelly and silty clays won from the road boxing and trench excavations on this and the surrounding sites.

Sample taken from the site stockpiles comprising local material used for fill was taken for geotechnical compliance testing during the works. The material compliance test results are summarised in Table 3. The laboratory test certificates are attached in **Appendix C**.

**Table 1:** Compliance test result summary

Date	Sample #	Particle Size Distribution (PSD)						Liquid Limit	Plastic Limit	PI
		37.5mm	13.2mm	4.75mm	1.18mm	425 µm	0.75 µm			
20/12/22	S22DS-09967	100	100	99	97	91	71	57	15	42

The laboratory test results indicated material is clay of medium to high plasticity.

Below are two photographs of typical materials used during construction.

**Figure 1:** Photograph of the material used on site and plant used

Photo 1: Brown Silty Clay	Photo 1: Clay Compaction with pad foot
	

Photograph 2.9.3:

Fill Material

Photograph 2.9.4:

Vibrating Pad foot roller

The material was deemed as being derived from natural soils. The soil is considered as 'Suitable Material' in accordance with Section 4.4 of the AS3798-2007.

The fill material was not tested for classification of 'Fill Material' as defined in EPA Publication IWRG621.

Any observed organic or deleterious matter including any oversize cobbles or boulders were removed from the tested areas during the fill placement.

## 2.10 Geotechnical sampling and testing

Field density and moisture content testing was carried out using a calibrated portable density and moisture gauge in accordance with AS 1289.5.8.1. The Hilf rapid compaction test was used for peak converted wet density determination in accordance with AS 1289.5.7.1. Test locations were recorded using hand-held GPS units. A site plan showing the field density test locations is provided in Appendix A. A summary of Hilf density testing is presented in Appendix B and the Hilf density test reports are presented in Appendix C.

A total of 136 tests were performed across the Stage 7 and surrounding area during the filling process.

The results show that 9 tests failed to meet the specification requirements for Stage 7 works. The earthworks contractor was advised of the tests that failed and the fill relevant to the areas were reworked, reconditioned, re-compacted and subsequently retested. The results showed that the re-tests achieved the specification requirements for the project.

A summary of the Hilf density test reports is provided within Appendix B and all the test reports are provided within Appendix C, a controlled fill certificate is provided within Appendix D.

### 3 Conclusion

On the basis of our inspections and after considering all test results relating to the project, it is our opinion, so far as it is able to be determined, that:

- The materials used by the earthworks contractor met the geotechnical property requirements of the specification.
- The fill material placed was tested at a suitable frequency in accordance with AS 3798-2007- Table 8.1 and the results indicate the compacted material achieved the minimum density requirement of the specification.
- Given the consistent construction practices followed by the earthworks contractor, and as witnessed by Chadwick Geotechnics, combined with the satisfactory verification of test results achieved, it is inferred that areas of the site between test locations were performed to the same standard as those areas that have been tested.

It is our opinion that the earthworks undertaken have been performed in accordance with the requirements of Section 8.2 of AS3798-2007 - Level 1 Inspection and Testing.

### 4 Applicability

This report has been prepared for the exclusive use of our client Grosvenor Lodge Pty Ltd , with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Recommendations and opinions in this report are based on data from discrete investigation locations. The nature and continuity of subsoil away from these locations are inferred but it must be appreciated that actual conditions could vary from the assumed model.

Should you require any further information regarding this report, please do not hesitate to contact the undersigned on (03) 8796 7900.

Chadwick Geotechnics Pty Ltd

Report prepared by:

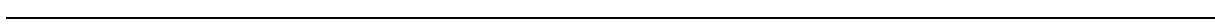
Authorised for Chadwick Geotechnics Pty Ltd by:



Per Michael DiMeglio

.....  
Robert Barden  
Project Manager

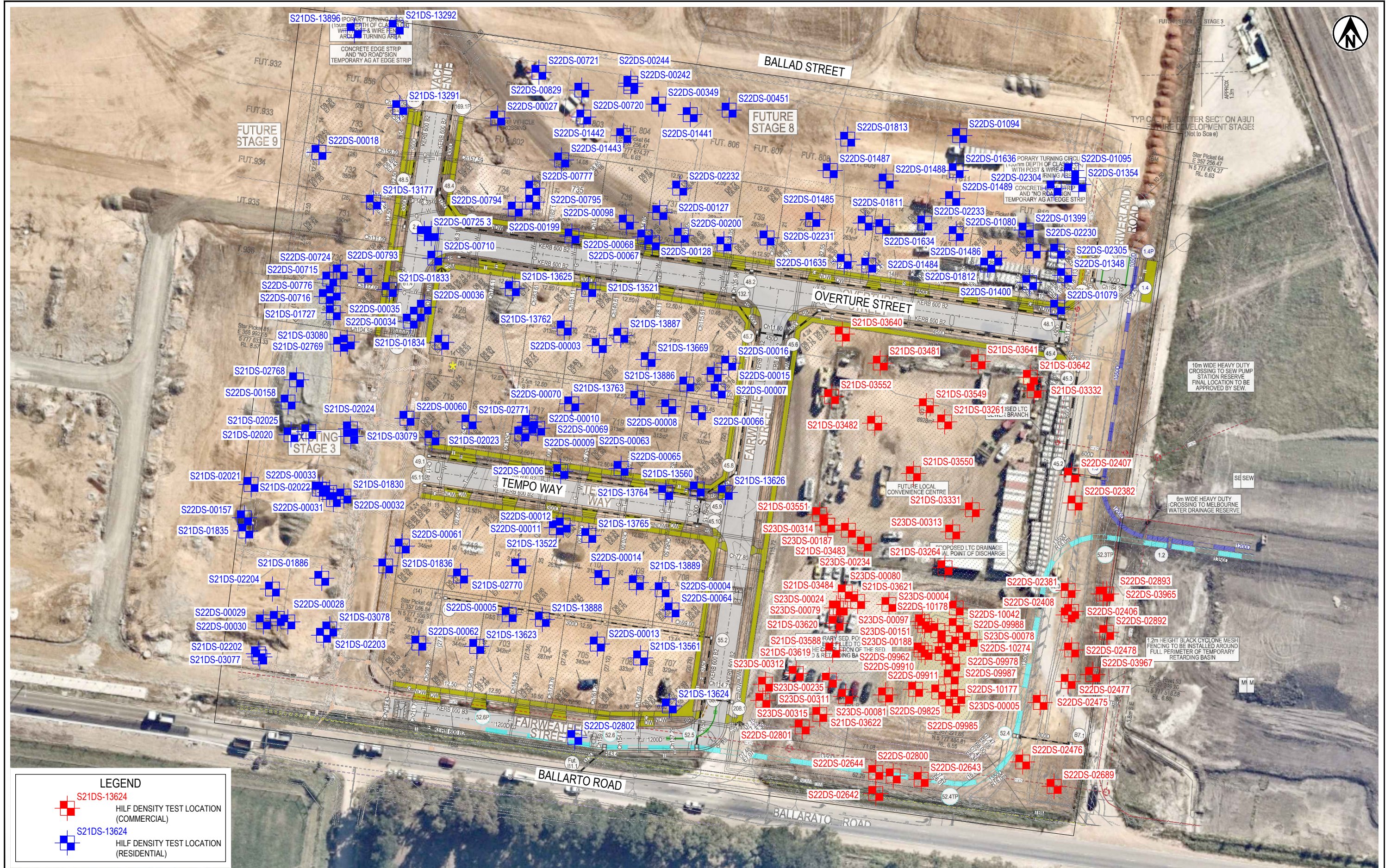
.....  
Tim Chadwick  
Project Director





## **Appendix A : Location Plan**

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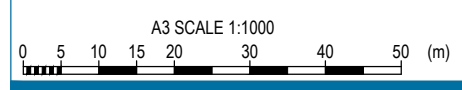


**LEGEND**

- S21DS-13624 HILF DENSITY TEST LOCATION (COMMERCIAL)
- S21DS-13624 HILF DENSITY TEST LOCATION (RESIDENTIAL)

**NOTES:**

- AERIAL IMAGE SOURCED FROM NEARMAP. COPYRIGHT NEARMAP PTY LTD IMAGERY DATE: 14/09/2022.
- BASE PLAN PROVIDED BY CHARLTON DEGG. DRAWING REFERENCE: 1209\_7/RO4, REV. K. DATE RECEIVED: 14/10/2022.



PROJECT No. 1016363		
DESIGNED	RHB	Jan.23
DRAWN	KMJA	Jan.23
CHECKED		
APPROVED DATE		

CLIENT	GREENRIDGE PROPERTIES PTY LTD		
PROJECT	RIVERFIELD ESTATE STAGE 7		
TITLE	LEVEL ONE HILF DENSITY TESTING HILF DENSITY TEST LOCATION PLAN		
SCALE (A3)	1:1000	FIG No.	FIGURE 01
			REV 1

**CHADWICK GEOTECHNICS**  
www.chadwickgeotechnics.com.au

## **Appendix B : Hilf Density Test Summary**

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## Riverfield Estate Stage 7 - Residential Lots 701 to 745

Chadwick Geotechnics  
25 Metcalf Street  
Dandenong South VIC 3175  
Tel : ( 03 ) 8796 7900  
Fax: ( 03 ) 9706 9431

[www.chadwickgeotechnics.com.au](http://www.chadwickgeotechnics.com.au)



Report No	Sample No	Date	Easting	Northing	Layer/RL	Density Ratio ( $\geq 95$ %)	Moisture Variation (%)	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W21DS00410	S21DS-01727	4/02/2021	357023	5777629	7.87	99	0.5 dry	Pass	
HDR:W21DS00438	S21DS-01830	5/02/2021	357026	5777577	EL 7.43m	100.5	1.5 wet	Pass	
HDR:W21DS00439	S21DS-01833	5/02/2021	357039	5777636	R.L 7.57m	101	1 wet	Pass	
HDR:W21DS00439	S21DS-01834	5/02/2021	357054	5777621	R.L 7.54m	97.5	2.5 wet	Pass	
HDR:W21DS00439	S21DS-01835	5/02/2021	356998	5777567	R.L 7.55m	99	0 wet	Pass	
HDR:W21DS00439	S21DS-01836	5/02/2021	357038	5777557	R.L 7.53m	98	0 dry	Pass	
HDR:W21DS00451	S21DS-01886	8/02/2021	357020	5777554	8.15	98.5	0.5 wet	Pass	
HDR:W21DS00483	S21DS-02020	9/02/2021	357011	5777595	8.35	98	2 wet	Pass	
HDR:W21DS00483	S21DS-02021	9/02/2021	357000	5777580	8.57	100.5	2 wet	Pass	
HDR:W21DS00483	S21DS-02022	9/02/2021	357020	5777579	8.27	95	3 wet	Pass	
HDR:W21DS00483	S21DS-02023	9/02/2021	357051	5777594	8.03	99.5	2.5 wet	Pass	
HDR:W21DS00483	S21DS-02024	9/02/2021	357028	5777596	8.21	94.5	6 wet	Fail	See Retest 03079
HDR:W21DS00483	S21DS-02025	9/02/2021	357016	5777595	8.47	99	2 wet	Pass	
HDR:W21DS00536	S21DS-02202	11/02/2021	357002	5777532	7.63	101	5 wet	Fail	See Retest 03077
HDR:W21DS00536	S21DS-02203	11/02/2021	357020	5777537	7.86	112	6 wet	Fail	See Retest 03078
HDR:W21DS00536	S21DS-02204	11/02/2021	357006	5777550	8.19	97.5	0 wet	Pass	
HDR:W21DS00687	S21DS-02768	22/02/2021	357013	5777610	7.95	96	2.5 wet	Pass	
HDR:W21DS00687	S21DS-02769	22/02/2021	357025	5777620	7.94	93.5	0.5 dry	Fail	See Retest 03080
HDR:W21DS00687	S21DS-02770	22/02/2021	357059	5777554	8.14	97	0 wet	Pass	



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Report No	Sample No	Date	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation (%)	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W21DS00687	S21DS-02771	22/02/2021	357062	5777598	8.17	95.5	0 wet	Pass	
HDR:W21DS00772	S21DS-03077	1/03/2021	357002	5777531	7.74	97.5	2.5 wet	Pass	Retest of 02202
HDR:W21DS00772	S21DS-03078	1/03/2021	357022	5777539	7.84	100	0.5 wet	Pass	Retest of 02203
HDR:W21DS00772	S21DS-03079	1/03/2021	357028	5777594	8.28	104.5	0.5 wet	Pass	Retest of 02024
HDR:W21DS00772	S21DS-03080	1/03/2021	357027	5777621	8.06	97	2.5 wet	Pass	Retest of 02769
HDR:W21DS03585	S21DS-13177	4/12/2021	357034	5777661		97.5	3 wet	Pass	
HDR:W21DS03609	S21DS-13291	7/12/2021	357042	5777688		97	3 wet	Pass	
HDR:W21DS03609	S21DS-13292	7/12/2021	357041	5777711		98.5	0.5 wet	Pass	
HDR:W21DS03677	S21DS-13521	14/12/2021	357096	5777636		97	0 wet	Pass	
HDR:W21DS03677	S21DS-13522	14/12/2021	357076	5777557		96	0 dry	Pass	
HDR:W21DS03687	S21DS-13560	15/12/2021	357127	5777579		98.5	0.5 wet	Pass	
HDR:W21DS03687	S21DS-13561	15/12/2021	357126	5777535		98.5	2 dry	Pass	
HDR:W21DS03706	S21DS-13623	16/12/2021	357064	5777534		96.5	2 wet	Pass	
HDR:W21DS03706	S21DS-13624	16/12/2021	357119	5777517		97	0.5 wet	Pass	
HDR:W21DS03706	S21DS-13625	16/12/2021	357074	5777636		90.5	0 wet	Fail	See Retest 13762
HDR:W21DS03706	S21DS-13626	16/12/2021	357135	5777578		102.5	0 dry	Pass	
HDR:W21DS03725	S21DS-13669	18/12/2021	357113	5777616		97.5	0 dry	Pass	
HDR:W21DS03751	S21DS-13762	20/12/2021	357089	5777625		99	0.5 wet	Pass	Retest of S21DS-13625
HDR:W21DS03751	S21DS-13763	20/12/2021	357110	5777605		99	0.5 wet	Pass	



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Report No	Sample No	Date	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation (%)	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W21DS03751	S21DS-13764	20/12/2021	357118	5777578		97	0 dry	Pass	
HDR:W21DS03751	S21DS-13765	20/12/2021	357096	5777566		101.5	0.5 dry	Pass	
HDR:W21DS03787	S21DS-13886	22/12/2021	357124	5777609		99	0.5 wet	Pass	
HDR:W21DS03787	S21DS-13887	22/12/2021	357105	5777623		93	0 dry	Fail	See Retest S22DS-00003
HDR:W21DS03787	S21DS-13888	22/12/2021	357083	5777542		98	0 wet	Pass	
HDR:W21DS03787	S21DS-13889	22/12/2021	357110	5777552		93	0.5 dry	Fail	See Retest S22DS-00004
HDR:W21DS03790	S21DS-13896	22/12/2021	357029	5777710		98.5	0 wet	Pass	
HDR:W22DS00002	S22DS-00003	5/01/2022	357099	5777620		97	0.5 dry	Pass	Retest of S21DS-13887
HDR:W22DS00002	S22DS-00004	5/01/2022	357117	5777550		97.5	0.5 dry	Pass	Retest of S21DS-13889
HDR:W22DS00002	S22DS-00005	5/01/2022	357073	5777543		98.5	2 dry	Pass	
HDR:W22DS00002	S22DS-00006	5/01/2022	357088	5777584		102	3.5 dry	Fail	See Retest S22DS-00012
HDR:W22DS00002	S22DS-00007	5/01/2022	357133	5777607		96.5	2 dry	Pass	
HDR:W22DS00002	S22DS-00008	5/01/2022	357119	5777603		95.5	2 dry	Pass	
HDR:W22DS00003	S22DS-00009	6/01/2021	357077	5777595		93.5	0 wet	Fail	See Retest S22DS-00063
HDR:W22DS00003	S22DS-00010	6/01/2021	357079	5777597		93.5	0 wet	Fail	See Retest S22DS-00070
HDR:W22DS00003	S22DS-00011	6/01/2021	357087	5777568		95	0 dry	Pass	
HDR:W22DS00003	S22DS-00012	6/01/2021	357089	5777569		95	0 wet	Pass	Retest of S22DS-00006
HDR:W22DS00003	S22DS-00013	6/01/2021	357098	5777535		97.5	0 wet	Pass	
HDR:W22DS00003	S22DS-00014	6/01/2021	357100	5777554		100	0 wet	Pass	
HDR:W22DS00003	S22DS-00015	6/01/2021	357132	5777612		101	0 dry	Pass	



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Report No	Sample No	Date	Easting	Northing	Layer/RL	Density Ratio ( $\geq 95$ %)	Moisture Variation (%)	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W22DS00003	S22DS-00016	6/01/2021	357136	5777615		98.5	0 dry	Pass	
HDR:W22DS00004	S22DS-00018	6/01/2021	357019	5777675		98	2.5 dry	Pass	
HDR:W22DS00010	S22DS-00027	7/01/2022	357070	5777685		95.5	1 dry	Pass	
HDR:W22DS00011	S22DS-00028	8/01/2022	357010	5777541		103.5	2 dry	Pass	
HDR:W22DS00011	S22DS-00029	8/01/2022	357007	5777542		104.5	2 dry	Pass	
HDR:W22DS00011	S22DS-00030	8/01/2022	357003	5777541		105	2.5 dry	Pass	
HDR:W22DS00011	S22DS-00031	8/01/2022	357023	5777576		100.5	1 wet	Pass	
HDR:W22DS00011	S22DS-00032	8/01/2022	357022	5777578		104	1 dry	Pass	
HDR:W22DS00011	S22DS-00033	8/01/2022	357019	5777579		100	2 dry	Pass	
HDR:W22DS00011	S22DS-00034	8/01/2022	357045	5777627		98.5	3 wet	Pass	
HDR:W22DS00011	S22DS-00035	8/01/2022	357047	5777629		100	2 wet	Pass	
HDR:W22DS00011	S22DS-00036	8/01/2022	357049	5777631		102.5	2 dry	Pass	
HDR:W22DS00020	S22DS-00060	10/01/2022	357044	5777599		98.5	0.5 dry	Pass	
HDR:W22DS00020	S22DS-00061	10/01/2022	357043	5777563		100	0.5 dry	Pass	
HDR:W22DS00020	S22DS-00062	10/01/2022	357047	5777535		98.5	0.5 dry	Pass	
HDR:W22DS00020	S22DS-00063	10/01/2022	357079	5777598		97.5	1 dry	Pass	Retest of S22DS-00009
HDR:W22DS00020	S22DS-00064	10/01/2022	357120	5777544		98	0 dry	Pass	
HDR:W22DS00020	S22DS-00065	10/01/2022	357105	5777585		100.5	0.5 dry	Pass	



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Report No	Sample No	Date	Easting	Northing	Layer/RL	Density Ratio ( $\geq 95$ %)	Moisture Variation (%)	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W22DS00020	S22DS-00066	10/01/2022	357127	5777601		100.5	0.5 dry	Pass	
HDR:W22DS00020	S22DS-00067	10/01/2022	357114	5777649		99	0 wet	Pass	
HDR:W22DS00020	S22DS-00068	10/01/2022	357112	5777651		97	0 dry	Pass	
HDR:W22DS00020	S22DS-00069	10/01/2022	357081	5777596		103	2.5 dry	Pass	
HDR:W22DS00020	S22DS-00070	10/01/2022	357091	5777603		100.5	2 dry	Pass	Retest of S22DS-00010
HDR:W22DS00029	S22DS-00098	11/01/2022	357107	5777655		101	0 wet	Pass	
HDR:W22DS00043	S22DS-00127	13/01/2022	357116	5777658		99	0 wet	Pass	
HDR:W22DS00043	S22DS-00128	13/01/2022	357135	5777649		95.5	0 wet	Pass	
HDR:W22DS00051	S22DS-00157	14/01/2022	356998	5777571		95	2 wet	Pass	
HDR:W22DS00051	S22DS-00158	14/01/2022	357010	5777604		97	1.5 wet	Pass	
HDR:W22DS00059	S22DS-00199	17/01/2022	357091	5777651		95	0 wet	Pass	
HDR:W22DS00059	S22DS-00200	17/01/2022	357122	5777652		95.5	0.5 wet	Pass	
HDR:W22DS00071	S22DS-00242	18/01/2022	357108	5777694		98	2.5 dry	Pass	
HDR:W22DS00071	S22DS-00244	18/01/2022	357108	5777695		99.5	0.5 dry	Pass	
HDR:W22DS00098	S22DS-00349	20/01/2022	357116	5777689		99.5	0 dry	Pass	
HDR:W22DS00128	S22DS-00451	24/01/2022	357136	5777687		103	2.5 dry	Pass	
HDR:W22DS00204	S22DS-00710	3/02/2022	357052	5777645		98.5	0.5 wet	Pass	
HDR:W22DS00204	S22DS-00713	3/02/2022	357051	5777652		97	0 wet	Pass	
HDR:W22DS00205	S22DS-00715	3/02/2022	357022	5777639		97.5	3 wet	Pass	





## Riverfield Estate Stage 7 - Residential Lots 701 to 745

Chadwick Geotechnics  
25 Metcalf Street  
Dandenong South VIC 3175  
Tel : ( 03 ) 8796 7900  
Fax: ( 03 ) 9706 9431



[www.chadwickgeotechnics.com.au](http://www.chadwickgeotechnics.com.au)

Report No	Sample No	Date	Easting	Northing	Layer/RL	Density Ratio ( $\geq 95$ %)	Moisture Variation (%)	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W22DS00205	S22DS-00716	3/02/2022	357021	5777634		104	2 wet	Pass	
HDR:W22DS00208	S22DS-00720	2/02/2022	357095	5777685		103.5	2 dry	Pass	
HDR:W22DS00208	S22DS-00721	2/02/2022	357082	5777698		101.5	0 dry	Pass	
HDR:W22DS00210	S22DS-00724	2/02/2022	357025	5777641		104	2 dry	Pass	
HDR:W22DS00210	S22DS-00725	2/02/2022	357049	5777652		99.5	0 dry	Pass	
HDR:W22DS00224	S22DS-00776	4/02/2022	357023	5777635		101	1 wet	Pass	
HDR:W22DS00224	S22DS-00777	4/02/2022	357080	5777665		98	0 dry	Pass	
HDR:W22DS00230	S22DS-00793	7/02/2022	357032	5777640		97.5	2 wet	Pass	
HDR:W22DS00230	S22DS-00794	7/02/2022	357075	5777659		102	3 dry	Pass	
HDR:W22DS00230	S22DS-00795	7/02/2022	357080	5777661		99.5	0.5 dry	Pass	
HDR:W22DS00244	S22DS-00829	8/02/2022	357094	5777693		99	1.5 wet	Pass	
HDR:W22DS00339	S22DS-01079	15/02/2022	357230	5777631		98.5	2 dry	Pass	
HDR:W22DS00339	S22DS-01080	15/02/2022	357201	5777652		99.5	1 dry	Pass	
HDR:W22DS00343	S22DS-01094	15/02/2022	357202	5777680		95.5	0 dry	Pass	
HDR:W22DS00343	S22DS-01095	15/02/2022	357234	5777670		100	1 dry	Pass	
HDR:W22DS00414	S22DS-01348	22/02/2022	357232	5777640		100	0.5 dry	Pass	
HDR:W22DS00415	S22DS-01354	22/02/2022	357236	5777666		102.5	0 wet	Pass	
HDR:W22DS00425	S22DS-01399	23/02/2022	357221	5777653		95.5	0.5 dry	Pass	



## Riverfield Estate Stage 7 - Residential Lots 701 to 745

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Report No	Sample No	Date	Easting	Northing	Layer/RL	Density Ratio ( $\geq 95$ %)	Moisture Variation (%)	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W22DS00426	S22DS-01400	23/02/2022	357222	5777638		99.5	0 dry	Pass	
HDR:W22DS00440	S22DS-01441	24/02/2022	357125	5777686		102	0 dry	Pass	
HDR:W22DS00440	S22DS-01442	24/02/2022	357106	5777680		100.5	0 dry	Pass	
HDR:W22DS00440	S22DS-01443	24/02/2022	357088	5777673		102.5	0.5 wet	Pass	
HDR:W22DS00457	S22DS-01484	25/02/2022	357176	5777643		105.5	2 dry	Pass	
HDR:W22DS00457	S22DS-01485	25/02/2022	357160	5777656		100	0.5 dry	Pass	
HDR:W22DS00457	S22DS-01486	25/02/2022	357212	5777645		97	1.5 dry	Pass	
HDR:W22DS00458	S22DS-01487	25/02/2022	357165	5777670		102.5	0.5 wet	Pass	
HDR:W22DS00458	S22DS-01488	25/02/2022	357181	5777667		99	0 dry	Pass	
HDR:W22DS00458	S22DS-01489	25/02/2022	357200	5777662		108	0.5 dry	Pass	
HDR:W22DS00501	S22DS-01634	2/03/2022	357180	5777654		99.5	1.5 dry	Pass	
HDR:W22DS00501	S22DS-01635	2/03/2022	357169	5777644		100	0.5 dry	Pass	
HDR:W22DS00502	S22DS-01636	2/03/2022	357201	5777670		101	0.5 wet	Pass	
HDR:W22DS00561	S22DS-01811	9/03/2022	357175	5777655		99.5	0 dry	Pass	
HDR:W22DS00561	S22DS-01812	9/03/2022	357210	5777643		100.5	0.5 wet	Pass	
HDR:W22DS00562	S22DS-01813	9/03/2022	357170	5777679		102.5	1.5 wet	Pass	
HDR:W22DS00671	S22DS-02230	22/03/2022	357223	5777647		103.5	0.5 dry	Pass	



## Riverfield Estate Stage 7 - Residential Lots 701 to 745

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Report No	Sample No	Date	Easting	Northing	Layer/RL	Density Ratio ( $\geq 95$ %)	Moisture Variation (%)	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W22DS00671	S22DS-02231	22/03/2022	357147	5777651		112	3 dry	Pass	
HDR:W22DS00671	S22DS-02232	22/03/2022	357122	5777665		106	0 dry	Pass	
HDR:W22DS00671	S22DS-02233	22/03/2022	357192	5777655		100	2.5 dry	Pass	
HDR:W22DS00688	S22DS-02304	23/03/2022	357229	5777665		106.5	3 dry	Pass	
HDR:W22DS00688	S22DS-02305	23/03/2022	357230	5777647		104.5	1.5 dry	Pass	
HDR:W22DS00830	S22DS-02802	7/04/2022	357092	5777508		105.5	2.5 dry	Pass	
									Testing up to 19-1-2023

## **Appendix C: NATA endorsed laboratory reports**

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**Report No: HDR:W21DS00410**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 4  
**Project No.:** 1016363.4000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number 12719  
 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 8/02/2021

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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S21DS-01723	S21DS-01724	S21DS-01725	S21DS-01726	S21DS-01727
Field Sample ID	1	2	3	4	5
Date Tested	4/02/2021	4/02/2021	4/02/2021	4/02/2021	4/02/2021
E:	356700.7	356739.2	356971.1	356917.7	357023.0
N:	5777965.8	5777991.1	5777575.1	5777566.2	5777629.4
Elv:	9.88	9.86	8.43	8.91	7.87

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
Field Wet Density (t/m <sup>3</sup> )	1.96	2.00	2.12	2.12	2.07
Peak Converted Wet Density (t/m <sup>3</sup> )	2.07	2.05	2.09	2.06	2.09
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.0	0.0	0.5 wet	0.0	0.5 dry
Hilf Density Ratio (%)	<b>95.0</b>	<b>97.5</b>	<b>101.0</b>	<b>103.0</b>	<b>99.0</b>

## Comments



Dandenong South  
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 25 Metcalf Street  
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**Report No: HDR:W21DS00438**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 1  
**Project No.:** 1016363.1000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number 12719 Approved Signatory: J. A. Smith  
 (Senior Technician)  
 12712 Date of Issue: 3/03/2021  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Site Won  
**Material:** CLAY FILL

## Sample Data

Sample ID	S21DS-01830				
Field Sample ID	1				
Date Tested	5/02/2021				
Location	E 357026				
	N 5777577				
	EL 7.43m				

## Field and Laboratory Data

Depth of Test (mm)	175				
Depth of Layer (mm)	200				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Wet Density (t/m <sup>3</sup> )	2.00				
Peak Converted Wet Density (t/m <sup>3</sup> )	1.99				
Compactive Effort	Standard				
Moisture Variation (%)	1.5 wet				
Hilf Density Ratio (%)	<b>100.5</b>				

## Comments



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**Report No: HDR:W21DS00439**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 4  
**Project No.:** 1016363.4000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:**  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Site Won  
**Material:** CLAY Fill

## Sample Data

Sample ID	S21DS-01831	S21DS-01832	S21DS-01833	S21DS-01834	S21DS-01835	S21DS-01836
Field Sample ID	1	2	3	4	5	6
Date Tested	5/02/2021	5/02/2021	5/02/2021	5/02/2021	5/02/2021	5/02/2021
E:	356677	356680	357039	357054	356998	357038
N:	5777940	5777976	5777636	5777621	5777567	5777557
RL:	9.82m	9.92m	7.57m	7.54m	7.55m	7.53m

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Wet Density (t/m <sup>3</sup> )	1.96	1.97	2.07	2.02	2.04	1.96
Peak Converted Wet Density (t/m <sup>3</sup> )	2.06	2.02	2.05	2.07	2.06	2.01
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	3.5 wet	1.5 wet	1.0 wet	2.5 wet	0.0	0.0
Hilf Density Ratio (%)	<b>95.5</b>	<b>97.0</b>	<b>101.0</b>	<b>97.5</b>	<b>99.0</b>	<b>98.0</b>

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

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**Report No: HDR:W21DS00451**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 3  
**Project No.:** 1016363.3000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number 12719 Approved Signatory: J. A. Smith  
 12712 (Senior Technician)  
 Date of Issue: 3/03/2021  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S21DS-01885	S21DS-01886				
Field Sample ID	1	2				
Date Tested	8/02/2021	8/02/2021				
E:	356990.3	3567019.7				
N:	5777557.8	5777553.5				
Elv:	8.12	8.15				

## Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.01	2.02				
Peak Converted Wet Density (t/m³)	2.05	2.05				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.5 wet	0.5 wet				
Hilf Density Ratio (%)	<b>98.0</b>	<b>98.5</b>				

## Comments





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 25 Metcalf Street  
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**Report No: HDR:W21DS00483**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 3  
**Project No.:** 1016363.3000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number 12719  
 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 10/02/2021

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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S21DS-02020	S21DS-02021	S21DS-02022	S21DS-02023	S21DS-02024	S21DS-02025
Field Sample ID	1	2	3	4	5	6
Date Tested	9/02/2021	9/02/2021	9/02/2021	9/02/2021	9/02/2021	9/02/2021
E:	3567010.9	356999.5	357020.0	357051.2	357027.9	357016.0
N:	5777594.5	5777580.3	5777578.9	5777593.6	5777596.2	5777595.4
Elv:	8.35	8.57	8.27	8.03	8.21	8.47

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Field Wet Density (t/m <sup>3</sup> )	2.01	1.99	1.99	1.95	1.96	1.95
Peak Converted Wet Density (t/m <sup>3</sup> )	2.05	1.99	2.09	1.96	2.07	1.96
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	2.0 wet	2.0 wet	3.0 wet	2.5 wet	6.0 wet	2.0 wet
Hilf Density Ratio (%)	<b>98.0</b>	<b>100.5</b>	<b>95.0</b>	<b>99.5</b>	<b>94.5</b>	<b>99.0</b>

## Comments



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 25 Metcalf Street  
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**Report No: HDR:W21DS00536**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 3  
**Project No.:** 1016363.3000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number 12719 Approved Signatory: J. A. Smith  
 12712 (Senior Technician)  
 Date of Issue: 3/03/2021  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S21DS-02202	S21DS-02203	S21DS-02204	S21DS-02205	S21DS-02206
Field Sample ID	1	2	3	4	5
Date Tested	11/02/2021	11/02/2021	11/02/2021	11/02/2021	11/02/2021
E:	357001.6	357020.2	357005.6	356853.4	356868.0
N:	5777531.9	5777537.2	5777550.4	5777885.5	5777915.8
Elv:	7.63	7.86	8.19	9.02	8.94

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0
Field Wet Density (t/m³)	2.04	2.19	2.11	1.97	2.10
Peak Converted Wet Density (t/m³)	2.02	1.96	2.16	2.02	2.11
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	5.0 wet	6.0 wet	0.0	2.0 wet	0.5 wet
Hilf Density Ratio (%)	<b>101.0</b>	<b>112.0</b>	<b>97.5</b>	<b>98.0</b>	<b>99.5</b>

## Comments



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 25 Metcalf Street  
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**Report No: HDR:W21DS00687**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 3  
**Project No.:** 1016363.3000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S21DS-02768	S21DS-02769	S21DS-02770	S21DS-02771
Field Sample ID	1	2	3	4
Date Tested	22/02/2021	22/02/2021	22/02/2021	22/02/2021
E:	357012.5	357025.1	357059	357061.8
N:	5777610.2	5777620.4	5777554	5777598.2
Elv:	7.95	7.94	8.14	8.17

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0		0	0
Field Wet Density (t/m³)	1.95	1.98	2.00	1.96
Peak Converted Wet Density (t/m³)	2.04	2.12	2.06	2.06
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Variation (%)	2.5 wet	0.5 dry	0.0	0.0
Hilf Density Ratio (%)	<b>96.0</b>	<b>93.5</b>	<b>97.0</b>	<b>95.5</b>

## Comments



**Dandenong South**  
**ACN 143 009 330**  
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 DANDENONG SOUTH, VIC 3175

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**Report No: HDR:W21DS00772**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 3  
**Project No.:** 1016363.3000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number 12719 Approved Signatory: J. A. Smith  
 12712 (Senior Technician)  
 Date of Issue: 3/03/2021  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S21DS-03077	S21DS-03078	S21DS-03079	S21DS-03080	S21DS-03081	S21DS-03082
Field Sample ID	1	2	3	4	5	6
Date Tested	1/03/2021	1/03/2021	1/03/2021	1/03/2021	1/03/2021	1/03/2021
E:	357002	357022	357028	357027	356674	3556866
N:	5777531	5777539	5777594	5777621	5777939	5777919
Elv:	7.74	7.84	8.28	8.06	9.83	9.43

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Wet Density (t/m <sup>3</sup> )	1.96	1.96	2.07	1.96	1.97	2.06
Peak Converted Wet Density (t/m <sup>3</sup> )	2.01	1.96	1.98	2.01	2.02	1.99
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	2.5 wet	0.5 wet	0.5 wet	2.5 wet	2.5 wet	0.5 dry
Hilf Density Ratio (%)	<b>97.5</b>	<b>100.0</b>	<b>104.5</b>	<b>97.0</b>	<b>97.5</b>	<b>104.0</b>

## Comments



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**Report No: HDR:W21DS00772**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 3  
**Project No.:** 1016363.3000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number 12719  
 12712  
 Approved Signatory: J. A. Smith  
 (Senior Technician)  
 Date of Issue: 3/03/2021  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S21DS-03083	S21DS-03084			
Field Sample ID	7	8			
Date Tested	1/03/2021	1/03/2021			
E:	356864	356873			
N:	5777937	5777573			
Elv:	9.43	8.86			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	1.98	2.00			
Peak Converted Wet Density (t/m³)	1.98	2.01			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	0.0	0.0			
Hilf Density Ratio (%)	<b>100.5</b>	<b>99.0</b>			

## Comments



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**Report No: HDR:W21DS03585**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 6/12/2021  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S21DS-13177				
Field Sample ID	1				
Date Tested	4/12/2021				
E:	357034.45				
N:	5777661				
RL / Layer:	7.917 / FSL-0.62m				
Lot:	731				
Other:	Sample: 1				

## Field and Laboratory Data

Depth of Layer (mm)	200				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Wet Density (t/m³)	2.08				
Peak Converted Wet Density (t/m³)	2.13				
Compactive Effort	Standard				
Moisture Variation (%)	3.0 wet				
Hilf Density Ratio (%)	<b>97.5</b>				

## Comments



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**Report No: HDR:W21DS03609**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 14/12/2021  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S21DS-13291	S21DS-13292			
Field Sample ID	1	2			
Date Tested	7/12/2021	7/12/2021			
E:	357042	357041			
N:	5777688	5777711			
RL / Layer:	8.131 / FSL-0.850m	8.199 / FSL-760m			
Other:	Sample 2	Sample 3			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.10	2.11			
Peak Converted Wet Density (t/m³)	2.17	2.14			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	3.0 wet	0.5 wet			
Hilf Density Ratio (%)	<b>97.0</b>	<b>98.5</b>			

## Comments



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**Report No: HDR:W21DS03677**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 3  
**Project No.:** 1016363.3000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 15/12/2021  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** CLAY

## Sample Data

Sample ID	S21DS-13521	S21DS-13522			
Field Sample ID	1	2			
Date Tested	14/12/2021	14/12/2021			
E:	357096	357076			
N:	5777636	5777557			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
Field Wet Density (t/m³)	2.07	2.05			
Peak Converted Wet Density (t/m³)	2.13	2.14			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	0.0	0.0			
<b>Hilf Density Ratio (%)</b>	<b>97.0</b>	<b>96.0</b>			

## Comments





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**Report No: HDR:W21DS03687**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 17/12/2021  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S21DS-13560	S21DS-13561			
Field Sample ID	1	2			
Date Tested	15/12/2021	15/12/2021			
E:	357127	357126			
N:	5777579	5777535			
RL / Layer:	6.703 / 1	6.680 / 1			
Lot:	721	707			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m <sup>3</sup> )	2.08	2.03			
Peak Converted Wet Density (t/m <sup>3</sup> )	2.11	2.06			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	0.5 wet	2.0 dry			
Hilf Density Ratio (%)	<b>98.5</b>	<b>98.5</b>			

## Comments



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**Report No: HDR:W21DS03706**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712

Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 20/12/2021

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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S21DS-13623	S21DS-13624	S21DS-13625	S21DS-13626
Field Sample ID	1	2	3	4
Date Tested	16/12/2021	16/12/2021	16/12/2021	16/12/2021
E:	357064	357119	357087	357135
N:	5777534	5777517	5777638	5777578
Layer:	2	2	2	2
Other:	Sample 7	Sample 8	Sample 9	Sample 10

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0
Field Wet Density (t/m³)	2.04	2.05	1.92	2.08
Peak Converted Wet Density (t/m³)	2.12	2.11	2.13	2.03
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Variation (%)	2.0 wet	0.5 wet	0.0	0.0
Hilf Density Ratio (%)	<b>96.5</b>	<b>97.0</b>	<b>90.5</b>	<b>102.5</b>

## Comments



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**Report No: HDR:W21DS03725**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 20/12/2021  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S21DS-13669				
Field Sample ID	1				
Date Tested	18/12/2021				
E:	357113				
N:	5777616				
Layer:	3				
Other:	Sample 11				

## Field and Laboratory Data

Depth of Test (mm)	175				
Depth of Layer (mm)	200				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Wet Density (t/m³)	2.10				
Peak Converted Wet Density (t/m³)	2.15				
Compactive Effort	Standard				
Moisture Variation (%)	0.0				
Hilf Density Ratio (%)	<b>97.5</b>				

## Comments



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**Report No: HDR:W21DS03751**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** Sandy Clay

## Sample Data

Sample ID	S21DS-13762	S21DS-13763	S21DS-13764	S21DS-13765		
Field Sample ID	1	2	3	4		
Date Tested	20/12/2021	20/12/2021	20/12/2021	20/12/2021		
E:	357089	357110	357118	357096		
N:	5777625	5777605	5777578	5777566		
RL / Layer:	7.840 / 2	7.785 / 3	7.659 / 3	7.886 / 3		
	Sample 14	Sample 15	Sample 16	Sample 17		
Other:	Retest of S21DS-13625					

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175		
Depth of Layer (mm)	200	200	200	200		
AS Sieve Size (mm)	19.0	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0	0		
Field Wet Density (t/m <sup>3</sup> )	2.10	2.10	2.06	2.12		
Peak Converted Wet Density (t/m <sup>3</sup> )	2.12	2.12	2.12	2.09		
Compactive Effort	Standard	Standard	Standard	Standard		
Moisture Variation (%)	0.5 wet	0.5 wet	0.0	0.5 dry		
Hilf Density Ratio (%)	<b>99.0</b>	<b>99.0</b>	<b>97.0</b>	<b>101.5</b>		

## Comments



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**Report No: HDR:W21DS03787**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S21DS-13886	S21DS-13887	S21DS-13888	S21DS-13889
Field Sample ID	1	2	3	4
Date Tested	22/12/2021	22/12/2021	22/12/2021	22/12/2021
E:	357124	357105	357083	357110
N:	5777609	5777623	5777542	5777552
RL / Layer:	8.110 / 4	8.220 / 4	8.019 / 4	7.904 / 4
Lot:	-	-	-	-
Other:	Sample 18	Sample 19	Sample 20	Sample 21

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	37.5
Oversize Wet (%)	0	0	0	9
Field Wet Density (t/m³)	2.08	1.97	2.12	1.99
Peak Converted Wet Density (t/m³)	2.11	2.12	2.17	2.13
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.5 wet	0.0	0.0	0.5 dry
Hilf Density Ratio (%)	<b>99.0</b>	<b>93.0</b>	<b>98.0</b>	<b>93.0</b>

## Comments



**Dandenong South**  
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**Report No: HDR:W21DS03790**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 9  
**Project No.:** 1016363.009  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
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Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S21DS-13896	S21DS-13897			
Field Sample ID	1	2			
Date Tested	22/12/2021	22/12/2021			
E:	357029	356897			
N:	5777710	5777762			
RL / Layer:	8.764 / -	8.502 / -			
Lot:	908	909			
Other:	Sample 1	Sample 2			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.12	2.11			
Peak Converted Wet Density (t/m³)	2.15	2.16			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	0.0	1.0 wet			
<b>Hilf Density Ratio (%)</b>	<b>98.5</b>	<b>98.0</b>			

## Comments



**Dandenong South**  
**ACN 143 009 330**  
 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

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**Report No: HDR:W22DS00002**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S22DS-00003	S22DS-00004	S22DS-00005	S22DS-00006	S22DS-00007	S22DS-00008
Field Sample ID	1	2	3	4	5	6
Date Tested	5/01/2022	5/01/2022	5/01/2022	5/01/2022	5/01/2022	5/01/2022
E:	357099	357116.97	357073	357088	357133	357119
N:	5777620	5777550.22	5777543	5777584	5777607	5777603
RL / Layer:	- / 4	7.73 / 4	- / 5	- / 5	- / 5	- / 6
Lot:	-	708	Sample 24	-	-	-
Other:	Retest of S21DS-13887 / Sample 22	Retest of S21DS-13889 / Sample 23		Sample 25	Sample 26	Sample 27

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Wet Density (t/m <sup>3</sup> )	2.10	2.06	2.04	2.07	2.04	2.02
Peak Converted Wet Density (t/m <sup>3</sup> )	2.17	2.11	2.07	2.03	2.11	2.11
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.5 dry	0.5 dry	2.0 dry	3.5 dry	2.0 dry	2.0 dry
Hilf Density Ratio (%)	<b>97.0</b>	<b>97.5</b>	<b>98.5</b>	<b>102.0</b>	<b>96.5</b>	<b>95.5</b>

## Comments



**Dandenong South**  
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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
 Fax: +61 3 9706 9431

**Report No: HDR:W22DS00003**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S22DS-00009	S22DS-00010	S22DS-00011	S22DS-00012	S22DS-00013	S22DS-00014
Field Sample ID	1	2	3	4	5	6
Date Tested	6/01/2021	6/01/2021	6/01/2021	6/01/2021	6/01/2021	6/01/2021
E:	357076.86	357079	357087	357089	357098	357100
N:	5777594.73	5777597	5777568	5777569	5777535	5777554
RL / Layer:	8.64 / -	8.84 / -	8.42 / -	8.62 / -	8.23 / -	8.43 / -
Lot:	-	-	-	-	-	-
Other:	Sample 28	Sample 29	Sample 30	Retest of S22DS-00006	Sample 32	Sample 33

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Wet Density (t/m <sup>3</sup> )	1.98	1.98	2.05	2.02	2.09	2.13
Peak Converted Wet Density (t/m <sup>3</sup> )	2.11	2.12	2.16	2.13	2.15	2.13
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.0	0.0	0.0	0.0	0.0	0.0
Hilf Density Ratio (%)	<b>93.5</b>	<b>93.5</b>	<b>95.0</b>	<b>95.0</b>	<b>97.5</b>	<b>100.0</b>

## Comments





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**ACN 143 009 330**  
 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

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 Fax: +61 3 9706 9431

**Report No: HDR:W22DS00003**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S22DS-00015	S22DS-00016			
Field Sample ID	7	8			
Date Tested	6/01/2021	6/01/2021			
E:	357131.85	357136			
N:	5777611.75	5777615			
RL / Layer:	8.14 / -	8.34 / -			
Lot:	-	-			
Other:	Sample 34	Sample 35			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.15	2.15			
Peak Converted Wet Density (t/m³)	2.13	2.18			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	0.0	0.0			
<b>Hilf Density Ratio (%)</b>	<b>101.0</b>	<b>98.5</b>			

## Comments



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**Report No: HDR:W22DS00004**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 10  
**Project No.:** 1016363.010  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 11/01/2022  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S22DS-00017	S22DS-00018				
Field Sample ID	1	2				
Date Tested	6/01/2021	6/01/2021				
E:	357000.37	357018.90				
N:	5777694.96	5777675.20				
RL / Layer:	9.15 / -	9.23 / -				
Lot:	-	-				
Other:	Sample 40	Sample 41				

## Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.14	2.01				
Peak Converted Wet Density (t/m³)	2.08	2.06				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	1.0 dry	2.5 dry				
<b>Hilf Density Ratio (%)</b>	<b>103.0</b>	<b>98.0</b>				

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
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**Report No: HDR:W22DS00010**



**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: J. A. Smith  
 (Senior Technician)  
 Date of Issue: 11/01/2022  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Silty CLAY

## Sample Data

Sample ID	S22DS-00027				
Field Sample ID	36				
Date Tested	7/01/2022				
Location	E 357070				
	N 5777685				
	EL. 8.63				

## Field and Laboratory Data

Depth of Test (mm)	175				
Depth of Layer (mm)	200				
Field Wet Density (t/m <sup>3</sup> )	2.00				
Peak Converted Wet Density (t/m <sup>3</sup> )	2.09				
Compactive Effort	Standard				
Moisture Variation (%)	1.0 dry				
Hilf Density Ratio (%)	<b>95.5</b>				

## Comments



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 25 Metcalf Street  
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**Report No: HDR:W22DS00011**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: J. A. Smith  
 (Senior Technician)  
 Date of Issue: 11/01/2022  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy CLAY

## Sample Data

Sample ID	S22DS-00028	S22DS-00029	S22DS-00030	S22DS-00031	S22DS-00032	S22DS-00033
Field Sample ID	37	38	39	40	41	42
Date Tested	8/01/2022	8/01/2022	8/01/2022	8/01/2022	8/01/2022	8/01/2022
Location	E 357010	E 357007	E 357003	E 357023	E 357022	E 357019
	N 5777541	N 5777542	N 5777541	N 5777576	N 5777578	N 5777579
	EL. 8.06	EL. 8.26	EL. 8.46	EL. 8.21	EL. 8.41	EL. 8.61
	Layer 1	Layer 2	Layer 3	Layer 1	Layer 2	Layer 3

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
Field Wet Density (t/m <sup>3</sup> )	2.05	2.14	2.11	2.04	2.12	2.08
Peak Converted Wet Density (t/m <sup>3</sup> )	1.99	2.05	2.01	2.03	2.04	2.09
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	2.0 dry	2.0 dry	2.5 dry	1.0 wet	1.0 dry	2.0 dry
Hilf Density Ratio (%)	<b>103.5</b>	<b>104.5</b>	<b>105.0</b>	<b>100.5</b>	<b>104.0</b>	<b>100.0</b>

## Comments



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 25 Metcalf Street  
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 Fax: +61 3 9706 9431

**Report No: HDR:W22DS00011**



**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

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Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: J. A. Smith  
 (Senior Technician)  
 Date of Issue: 11/01/2022  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy CLAY

## Sample Data

Sample ID	S22DS-00034	S22DS-00035	S22DS-00036		
Field Sample ID	43	44	45		
Date Tested	8/01/2022	8/01/2022	8/01/2022		
Location	E 357045	E 357047	E 357049		
	N 5777627	N 5777629	N 5777631		
	EL. 7.76	EL. 7.96	EL. 8.16		
	Layer 1	Layer 2	Layer 3		

## Field and Laboratory Data

Depth of Test (mm)	175	175	175		
Depth of Layer (mm)	200	200	200		
Field Wet Density (t/m <sup>3</sup> )	2.05	2.04	2.08		
Peak Converted Wet Density (t/m <sup>3</sup> )	2.08	2.03	2.04		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	3.0 wet	2.0 wet	2.0 dry		
Hilf Density Ratio (%)	<b>98.5</b>	<b>100.0</b>	<b>102.5</b>		

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

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**Report No: HDR:W22DS00020**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
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Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b), RC316.10  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S22DS-00060	S22DS-00061	S22DS-00062	S22DS-00063	S22DS-00064	S22DS-00065
Field Sample ID	46	47	48	49	50	51
Date Tested	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022
E:	357044.07	357042.71	357047.42	357079	357119.82	357105.24
N:	5777599.21	5777562.69	5777534.96	5777598	5777544.44	5777584.87
RL / Layer:	8.64 / 4	8.64 / 4	8.35 / 4	8.27 / 8	8.24 / 8	8.23 / 8
Lot:	-	-	-	-	-	-
Other:				Retest of S22DS-00009		

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
Field Wet Density (t/m <sup>3</sup> )	2.12	2.13	2.09	2.08	2.10	2.17
Peak Converted Wet Density (t/m <sup>3</sup> )	2.15	2.13	2.11	2.13	2.15	2.16
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.5 dry	0.5 dry	0.5 dry	1.0 dry	0.0	0.5 dry
Hilf Density Ratio (%)	<b>98.5</b>	<b>100.0</b>	<b>98.5</b>	<b>97.5</b>	<b>98.0</b>	<b>100.5</b>

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
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**Report No: HDR:W22DS00020**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b), RC316.10  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S22DS-00066	S22DS-00067	S22DS-00068	S22DS-00069	S22DS-00070
Field Sample ID	52	53	54	55	56
Date Tested	10/01/2022	10/01/2022	10/01/2022	10/01/2022	10/01/2022
E:	357127.34	357114.20	357112	357081.40	357091
N:	5777600.81	5777649.38	5777651	5777596.37	5777603
RL / Layer:	8.38 / 8	7.43 / 1	7.6.3 / 2	8.26 / 6	8.46 / 7
Lot:	-	-	-	717	-
Other:					Retest of S22DS-00010

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
Field Wet Density (t/m <sup>3</sup> )	2.19	2.11	2.07	2.14	2.06
Peak Converted Wet Density (t/m <sup>3</sup> )	2.18	2.13	2.13	2.07	2.05
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.5 dry	0.0	0.0	2.5 dry	2.0 dry
Hilf Density Ratio (%)	<b>100.5</b>	<b>99.0</b>	<b>97.0</b>	<b>103.0</b>	<b>100.5</b>

## Comments



**Dandenong South**  
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**Report No: HDR:W22DS00029**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 14/01/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy CLAY

## Sample Data

Sample ID	S22DS-00098				
Field Sample ID	57				
Date Tested	11/01/2022				
Location	E 357106.75				
	N 5777655.26				
	E.L 7.67				
	Layer 3				
	Lot 736				

## Field and Laboratory Data

Depth of Test (mm)	175				
Depth of Layer (mm)	200				
Field Wet Density (t/m³)	2.10				
Peak Converted Wet Density (t/m³)	2.09				
Compactive Effort	Standard				
Moisture Variation (%)	0.0				
Hilf Density Ratio (%)	<b>101.0</b>				

## Comments





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**Report No: HDR:W22DS00043**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
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Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 98%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy CLAY

## Sample Data

Sample ID	S22DS-00127	S22DS-00128			
Field Sample ID	1	2			
Date Tested	13/01/2022	13/01/2022			
E:	357116.32	357135			
N:	5777658.00	5777649			
EL:	7.43	7.33			
Lot:	737	739			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
Field Wet Density (t/m³)	2.11	2.03			
Peak Converted Wet Density (t/m³)	2.13	2.12			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	0.0	0.0			
Hilf Density Ratio (%)	<b>99.0</b>	<b>95.5</b>			

## Comments



**Dandenong South**  
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**Report No: HDR:W22DS00051**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 3  
**Project No.:** 1016363.3000  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 20/01/2022  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S22DS-00157	S22DS-00158			
Field Sample ID	1	2			
Date Tested	14/01/2022	14/01/2022			
Lot No:	332	340			
E:	356997.59	357010.10			
N:	5777570.75	5777603.87			
Elv:	8.93	8.94			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.03	2.09			
Peak Converted Wet Density (t/m³)	2.14	2.16			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	2.0 wet	1.5 wet			
Hilf Density Ratio (%)	<b>95.0</b>	<b>97.0</b>			

## Comments



Dandenong South  
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**Report No: HDR:W22DS00059**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 18/01/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-00199	S22DS-00200			
Field Sample ID	1	2			
Date Tested	17/01/2022	17/01/2022			
Lot No:	735	738			
E:	357091.19	357122.44			
N:	5777651.33	5777651.50			
RL:	8.37	8.02			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
Field Wet Density (t/m <sup>3</sup> )	1.98	1.97			
Peak Converted Wet Density (t/m <sup>3</sup> )	2.08	2.06			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	0.0	0.5 wet			
Hilf Density Ratio (%)	<b>95.0</b>	<b>95.5</b>			

## Comments



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**Report No: HDR:W22DS00071**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 20/01/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-00241	S22DS-00242	S22DS-00243	S22DS-00244
Field Sample ID	1	2	3	4
Date Tested	18/01/2022	18/01/2022	18/01/2022	18/01/2022
Lot No:	837	804	833	804
E:	357133	357108	357134	357108
N:	5777710	5777694	5777771	5777695
RL:	7.179	7.405	7.043	7.482

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
Field Wet Density (t/m <sup>3</sup> )	2.11	2.07	1.88	2.08
Peak Converted Wet Density (t/m <sup>3</sup> )	2.11	2.12	1.98	2.09
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Variation (%)	2.5 dry	2.5 dry	2.5 dry	0.5 dry
Hilf Density Ratio (%)	<b>100.0</b>	<b>98.0</b>	<b>95.0</b>	<b>99.5</b>

## Comments



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**ACN 143 009 330**  
 25 Metcalf Street  
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**Report No: HDR:W22DS00098**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Retirement Village  
**Project No.:** 1016363.RV  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: J. Lamont  
 (Dandenong Laboratory Manager)  
 Date of Issue: 29/07/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-00347	S22DS-00348	S22DS-00349	S22DS-00350	S22DS-00351	S22DS-00352
Field Sample ID	1	2	3	4	5	6
Date Tested	20/01/2022	20/01/2022	20/01/2022	20/01/2022	20/01/2022	20/01/2022
E:	357093	357107	357116	357012	357034	356551
N:	5777718	5777730	5777689	5777803	5777751	5778184
Elv:	7.845	8.277	7.612	9.103	8.779	

## Field and Laboratory Data

Depth of Test (mm)	125	125	125	125	125	175
Depth of Layer (mm)	150	150	150	150	150	200
Field Wet Density (t/m <sup>3</sup> )	2.05	2.08	2.11	2.09	2.00	2.05
Peak Converted Wet Density (t/m <sup>3</sup> )	2.13	2.09	2.12	2.15	2.11	2.04
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.5 dry	0.5 dry	0.0	2.0 dry	2.5 dry	0.0
Hilf Density Ratio (%)	<b>96.0</b>	<b>99.5</b>	<b>99.5</b>	<b>97.0</b>	<b>95.0</b>	<b>100.5</b>

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

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**Report No: HDR:W22DS00098**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Retirement Village  
**Project No.:** 1016363.RV  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: J. Lamont  
 (Dandenong Laboratory Manager)  
 Date of Issue: 29/07/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-00353	S22DS-00354	S22DS-00355			
Field Sample ID	7	8	9			
Date Tested	20/01/2022	20/01/2022	20/01/2022			
E:	356559	356583	356633			
N:	5778197	5778268	5778260			

## Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
Field Wet Density (t/m <sup>3</sup> )	2.03	1.98	2.04			
Peak Converted Wet Density (t/m <sup>3</sup> )	2.04	2.01	1.97			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	2.0 wet	0.5 wet	0.5 wet			
Hilf Density Ratio (%)	<b>99.5</b>	<b>98.5</b>	<b>103.5</b>			

## Comments



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 25 Metcalf Street  
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**Report No: HDR:W22DS00128**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 25/01/2022

Accreditation Number: 12719  
 Site Number: 12712  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-00450	S22DS-00451	S22DS-00452		
Field Sample ID	1	2	3		
Date Tested	24/01/2022	24/01/2022	24/01/2022		
Lot No:	836	806	830		
E:	357143.70	357136.10	357158.79		
N:	5777733.62	5777687.27	5777767.34		
Elv:	7.69	7.61	8.10		

## Field and Laboratory Data

Depth of Test (mm)	175	175	175		
Depth of Layer (mm)	200	200	200		
Field Wet Density (t/m <sup>3</sup> )	2.16	2.13	2.01		
Peak Converted Wet Density (t/m <sup>3</sup> )	2.08	2.07	2.03		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	2.0 dry	2.5 dry	2.5 dry		
Hilf Density Ratio (%)	<b>104.0</b>	<b>103.0</b>	<b>99.0</b>		

## Comments



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 25 Metcalf Street  
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**Report No: HDR:W22DS00204**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 8/02/2022  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-00709	S22DS-00710	S22DS-00711	S22DS-00712	S22DS-00713
Field Sample ID	1	2	3	4	5
Date Tested	3/02/2022	3/02/2022	3/02/2022	3/02/2022	3/02/2022
Lot No:	848	Roadway	849	850	Roadway
E:	357069	357052	357079	357045	357051
N:	5777735	5777645	5777720	5777782	5777652
Elv:	7.975	8.185	8.064	8.591	8.430

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0
Field Wet Density (t/m³)	2.09	2.05	2.09	2.01	2.02
Peak Converted Wet Density (t/m³)	2.06	2.08	2.04	2.08	2.07
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.5 wet	0.5 wet	1.5 wet	0.5 wet	0.0
Hilf Density Ratio (%)	<b>101.0</b>	<b>98.5</b>	<b>102.5</b>	<b>96.5</b>	<b>97.0</b>

## Comments





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 25 Metcalf Street  
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**Report No: HDR:W22DS00205**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712

Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 8/02/2022

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-00714	S22DS-00715	S22DS-00716		
Field Sample ID	1	2	3		
Date Tested	3/02/2022	3/02/2022	3/02/2022		
Lot No:	734	730	729		
E:	357006	357022	357021		
N:	5777660	5777639	5777634		
Elv:	7.871	8.926	9.023		

## Field and Laboratory Data

Depth of Test (mm)	175	175	175		
Depth of Layer (mm)	200	200	200		
AS Sieve Size (mm)	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0		
Field Wet Density (t/m³)	2.05	2.02	2.11		
Peak Converted Wet Density (t/m³)	2.11	2.07	2.03		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	0.5 wet	3.0 wet	2.0 wet		
Hilf Density Ratio (%)	<b>97.0</b>	<b>97.5</b>	<b>104.0</b>		

## Comments



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**Report No: HDR:W22DS00208**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 4/02/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-00719	S22DS-00720	S22DS-00721		
Field Sample ID	1	2	3		
Date Tested	2/02/2022	2/02/2022	2/02/2022		
Lot No:	852	801	803		
E:	357050	357094.576	357081.762		
N:	5777744	5777685.305	5777698.086		
Elv:	7.902	7.463	7.369		

## Field and Laboratory Data

Depth of Test (mm)	175	175	175		
Depth of Layer (mm)	200	200	200		
Field Wet Density (t/m <sup>3</sup> )	2.01	2.16	2.08		
Peak Converted Wet Density (t/m <sup>3</sup> )	2.04	2.09	2.05		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	0.5 wet	2.0 dry	0.0		
Hilf Density Ratio (%)	<b>98.0</b>	<b>103.5</b>	<b>101.5</b>		

## Comments



**Dandenong South**  
**ACN 143 009 330**  
 25 Metcalf Street  
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**Report No: HDR:W22DS00210**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 4/02/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95%  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-00724	S22DS-00725			
Field Sample ID	1	2			
Date Tested	2/02/2022	2/02/2022			
Lot No:	730	Roadway			
E:	357025	357049			
N:	5777641	5777652			
Elv:	8.645	8.005			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
Field Wet Density (t/m <sup>3</sup> )	2.13	2.08			
Peak Converted Wet Density (t/m <sup>3</sup> )	2.04	2.09			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	2.0 dry	0.0			
Hilf Density Ratio (%)	<b>104.0</b>	<b>99.5</b>			

## Comments



**Dandenong South**  
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 25 Metcalf Street  
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**Report No: HDR:W22DS00224**


**Issue No: 2**

*This report replaces all previous issues of report no 'HDR:W22DS00224'.*

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 14/09/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** Clay

## Sample Data

Sample ID	S22DS-00776	S22DS-00777			
Field Sample ID	1	2			
Date Tested	4/02/2022	4/02/2022			
Lot No:	729	734			
E:	357023	357080			
N:	5777635	5777665			
Elv:	8.96	-			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.06	2.05			
Peak Converted Wet Density (t/m³)	2.04	2.09			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	1.0 wet	0.0			
Hilf Density Ratio (%)	<b>101.0</b>	<b>98.0</b>			

## Comments



**Dandenong South**  
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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

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**Report No: HDR:W22DS00230**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Date of Issue: 3/08/2022  
 Approved Signatory: M. Robinson  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** Clay

## Sample Data

Sample ID	S22DS-00793	S22DS-00794	S22DS-00795		
Field Sample ID	1	2	3		
Date Tested	7/02/2022	7/02/2022	7/02/2022		
Lot No:	729	734	734		
E:	357032	357075	357080		
N:	5777640	5777659	5777661		
Elv:	8.840	8.397	8.369		

## Field and Laboratory Data

Depth of Test (mm)	175	175	175		
Depth of Layer (mm)	200	200	200		
AS Sieve Size (mm)	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0		
Field Wet Density (t/m³)	2.06	2.08	2.06		
Peak Converted Wet Density (t/m³)	2.11	2.04	2.07		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	2.0 wet	3.0 dry	0.5 dry		
Hilf Density Ratio (%)	<b>97.5</b>	<b>102.0</b>	<b>99.5</b>		

## Comments



**Dandenong South**  
**ACN 143 009 330**  
 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
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**Report No: HDR:W22DS00244**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712

Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 11/02/2022

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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** Clay

## Sample Data

Sample ID	S22DS-00829	S22DS-00830			
Field Sample ID	1	2			
Date Tested	8/02/2022	8/02/2022			
Lot No:	803	847			
E:	357094	357072			
N:	5777693	5777748			
Elv:	8.322	8.752			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.01	2.07			
Peak Converted Wet Density (t/m³)	2.02	2.03			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	1.5 wet	0.0			
Hilf Density Ratio (%)	<b>99.0</b>	<b>102.0</b>			

## Comments



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**Report No: HDR:W22DS00339**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 17/02/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** Clay

## Sample Data

Sample ID	S22DS-01079	S22DS-01080			
Field Sample ID	1	2			
Date Tested	15/02/2022	15/02/2022			
Lot No:	745	743			
E:	357230	357201			
N:	5777631	5777652			
Elv:	6.271	6.296			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.00	2.01			
Peak Converted Wet Density (t/m³)	2.03	2.02			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	2.0 dry	1.0 dry			
Hilf Density Ratio (%)	<b>98.5</b>	<b>99.5</b>			

## Comments



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**Report No: HDR:W22DS00343**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 17/02/2022  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** Clay

## Sample Data

Sample ID	S22DS-01094	S22DS-01095			
Field Sample ID	1	2			
Date Tested	15/02/2022	15/02/2022			
Lot No:	811	813			
E:	357202	357234			
N:	5777680	5777670			
Elv:	6.505	6.336			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.03	2.11			
Peak Converted Wet Density (t/m³)	2.12	2.11			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	0.0	1.0 dry			
Hilf Density Ratio (%)	<b>95.5</b>	<b>100.0</b>			

## Comments





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**Report No: HDR:W22DS00414**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 24/02/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-01348				
Field Sample ID	1				
Date Tested	22/02/2022				
Lot No:	745				
E:	357232				
N:	5777640				
Elv:	6.547				

## Field and Laboratory Data

Depth of Test (mm)	175				
Depth of Layer (mm)	200				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Wet Density (t/m³)	2.05				
Peak Converted Wet Density (t/m³)	2.05				
Compactive Effort	Standard				
Moisture Variation (%)	0.5 dry				
Hilf Density Ratio (%)	<b>100.0</b>				

## Comments



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**Report No: HDR:W22DS00415**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
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Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 24/02/2022  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-01349	S22DS-01350	S22DS-01351	S22DS-01352	S22DS-01353	S22DS-01354
Field Sample ID	1	2	3	4	5	6
Date Tested	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022	22/02/2022
Lot No:	819	818	817	816	815	813
E:	357250	357249	357247	357246	357245	357236
N:	5777769	5777755	5777734	5777719	5777709	5777666
Elv:	7.509	7.615	7.515	7.457	7.422	8.435

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Wet Density (t/m³)	2.04	2.06	2.10	2.09	2.17	2.18
Peak Converted Wet Density (t/m³)	2.14	2.14	2.15	2.12	2.09	2.12
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.0	0.0	0.0	0.0	2.0 dry	0.0
Hilf Density Ratio (%)	<b>95.5</b>	<b>96.0</b>	<b>97.5</b>	<b>98.5</b>	<b>103.5</b>	<b>102.5</b>

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

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**Report No: HDR:W22DS00425**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
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Accreditation Number: 12719  
 Site Number: 12712

Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 24/02/2022

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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-01397	S22DS-01398	S22DS-01399		
Field Sample ID	1	2	3		
Date Tested	23/02/2022	23/02/2022	23/02/2022		
Lot No:	818	815	812		
E:	357227	357233	357221		
N:	5777752	5777717	5777653		
Elv:	5.895	7.737	6.785		

## Field and Laboratory Data

Depth of Test (mm)	175	175	175		
Depth of Layer (mm)	200	200	200		
AS Sieve Size (mm)	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0		
Field Wet Density (t/m³)	2.15	2.10	2.06		
Peak Converted Wet Density (t/m³)	2.14	2.16	2.16		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	0.0	0.0	0.5 dry		
Hilf Density Ratio (%)	<b>100.5</b>	<b>97.0</b>	<b>95.5</b>		

## Comments



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 25 Metcalf Street  
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**Report No: HDR:W22DS00426**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
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Accreditation Number: 12719  
 Site Number: 12712

Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 24/02/2022

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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-01400				
Field Sample ID	1				
Date Tested	23/02/2022				
Lot No:	745				
E:	357222				
N:	5777638				
Elv:	6.740				

## Field and Laboratory Data

Depth of Test (mm)	175				
Depth of Layer (mm)	200				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Wet Density (t/m³)	2.13				
Peak Converted Wet Density (t/m³)	2.13				
Compactive Effort	Standard				
Moisture Variation (%)	0.0				
Hilf Density Ratio (%)	<b>99.5</b>				

## Comments



**Dandenong South**  
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**Report No: HDR:W22DS00440**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-01441	S22DS-01442	S22DS-01443		
Field Sample ID	1	2	3		
Date Tested	24/02/2022	24/02/2022	24/02/2022		
Lot No:	805	804	802		
E:	357125	357106	357088		
N:	5777686	5777680	5777673		
Elv:	8.515	8.7.30	8.888		

## Field and Laboratory Data

Depth of Test (mm)	175	175	175		
Depth of Layer (mm)	200	200	200		
AS Sieve Size (mm)	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0		
Field Wet Density (t/m³)	2.03	2.13	2.07		
Peak Converted Wet Density (t/m³)	1.99	2.12	2.03		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	0.0	0.0	0.5 wet		
Hilf Density Ratio (%)	<b>102.0</b>	<b>100.5</b>	<b>102.5</b>		

## Comments



**Dandenong South**  
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**Report No: HDR:W22DS00457**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-01484	S22DS-01485	S22DS-01486		
Field Sample ID	1	2	3		
Date Tested	25/02/2022	25/02/2022	25/02/2022		
Lot No:	742	740	744		
E:	357176	357160	357212		
N:	5777643	5777656	5777645		
Elv:	7.305	7.759	6.760		

## Field and Laboratory Data

Depth of Test (mm)	175	175	175		
Depth of Layer (mm)	200	200	200		
AS Sieve Size (mm)	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0		
Field Wet Density (t/m³)	2.15	2.09	2.05		
Peak Converted Wet Density (t/m³)	2.03	2.09	2.11		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	2.0 dry	0.5 dry	1.5 dry		
Hilf Density Ratio (%)	<b>105.5</b>	<b>100.0</b>	<b>97.0</b>		

## Comments



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**Report No: HDR:W22DS00458**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
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Accreditation Number: 12719  
 Site Number: 12712

Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 28/02/2022

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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-01487	S22DS-01488	S22DS-01489		
Field Sample ID	1	2	3		
Date Tested	25/02/2022	25/02/2022	25/02/2022		
Lot No:	808	810	811		
E:	357165	357181	357200		
N:	5777670	5777667	5777662		
Elv:	7.955	7.392	7.047		

## Field and Laboratory Data

Depth of Test (mm)	175	175	175		
Depth of Layer (mm)	200	200	200		
AS Sieve Size (mm)	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0		
Field Wet Density (t/m³)	2.17	2.12	2.26		
Peak Converted Wet Density (t/m³)	2.11	2.14	2.09		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	0.5 wet	0.0	0.5 dry		
Hilf Density Ratio (%)	<b>102.5</b>	<b>99.0</b>	<b>108.0</b>		

## Comments



**Dandenong South**  
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**Report No: HDR:W22DS00501**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
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Approved Signatory: M. Robinson  
 (Team Leader)

Accreditation Number: 12719  
 Site Number: 12712  
 Date of Issue: 3/03/2022  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** Clay

## Sample Data

Sample ID	S22DS-01634	S22DS-01635			
Field Sample ID	1	2			
Date Tested	2/03/2022	2/03/2022			
Lot No:	742	741			
E:	357180	357169			
N:	5777654	5777644			
Elv:	7.735	7.811			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	1.98	2.09			
Peak Converted Wet Density (t/m³)	1.99	2.09			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	1.5 dry	0.5 dry			
Hilf Density Ratio (%)	<b>99.5</b>	<b>100.0</b>			

## Comments





**Dandenong South**  
**ACN 143 009 330**  
 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

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**Report No: HDR:W22DS00502**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 3/03/2022  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** Clay

## Sample Data

Sample ID	S22DS-01636				
Field Sample ID	1				
Date Tested	2/03/2022				
Lot No:	811				
E:	357201				
N:	5777670				
Elv:	7.537				

## Field and Laboratory Data

Depth of Test (mm)	175				
Depth of Layer (mm)	200				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Wet Density (t/m³)	2.06				
Peak Converted Wet Density (t/m³)	2.04				
Compactive Effort	Standard				
Moisture Variation (%)	0.5 wet				
Hilf Density Ratio (%)	<b>101.0</b>				

## Comments



**Dandenong South**  
**ACN 143 009 330**  
 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
 Fax: +61 3 9706 9431

**Report No: HDR:W22DS00561**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712

Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 21/03/2022

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Clay

## Sample Data

Sample ID	S22DS-01811	S22DS-01812			
Field Sample ID	1	2			
Date Tested	9/03/2022	9/03/2022			
E:	357175	357210			
N:	5777655	5777643			
RL:	7.955	7.605			
Lot / Layer:	741 / -	744 / -			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Wet Density (t/m³)	2.09	2.12			
Peak Converted Wet Density (t/m³)	2.10	2.11			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	0.0	0.5 wet			
<b>Hilf Density Ratio (%)</b>	<b>99.5</b>	<b>100.5</b>			

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
 Fax: +61 3 9706 9431



**Report No: HDR:W22DS00562**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 21/03/2022  
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

## Sample Details

**Location:**  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S22DS-01813				
Field Sample ID	1				
Date Tested	9/03/2022				
E:	357170				
N:	5777679				
EL:	8.325				
Lot / Layer:	809 / -				

## Field and Laboratory Data

Depth of Test (mm)	175				
Depth of Layer (mm)	200				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Wet Density (t/m³)	2.09				
Peak Converted Wet Density (t/m³)	2.05				
Compactive Effort	Standard				
Moisture Variation (%)	1.5 wet				
Hilf Density Ratio (%)	<b>102.5</b>				

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
 Fax: +61 3 9706 9431

**Report No: HDR:W22DS00671**


**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 19/01/2023  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** CLAY

## Sample Data

Sample ID	S22DS-02230	S22DS-02231	S22DS-02232	S22DS-02233
Field Sample ID	1	2	3	4
Date Tested	22/03/2022	22/03/2022	22/03/2022	22/03/2022
Time Tested	08:30	08:40	08:50	10:22
Lot No:	745	740	737	743
E:	357223	357147	357122	357192
N:	5777647	5777651	5777665	5777655
RL:	7.853	8.533	8.750	8.229

## Field and Laboratory Data

Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0
Field Wet Density (t/m <sup>3</sup> )	2.19	2.24	2.15	2.03
Peak Converted Wet Density (t/m <sup>3</sup> )	2.11	2.00	2.03	2.03
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Variation (%)	0.5 dry	3.0 dry	0.0	2.5 dry
Hilf Density Ratio (%)	<b>103.5</b>	<b>112.0</b>	<b>106.0</b>	<b>100.0</b>

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
 Fax: +61 3 9706 9431



**Report No: HDR:W22DS00688**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield Estate - Stage 8  
**Project No.:** 1016363.008  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 19/04/2022  
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## Sample Details

**Location:** Clyde North  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 95% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Imported  
**Material:** Sandy Clay

## Sample Data

Sample ID	S22DS-02304	S22DS-02305			
Field Sample ID	1	2			
Date Tested	23/03/2022	23/03/2022			
Time Tested	14:10	14:20			
E:	357229	357230			
N:	5777665	5777647			
RL:	8.183	8.288			
Lot	813	812			

## Field and Laboratory Data

Depth of Test (mm)	175	175			
Depth of Layer (mm)	200	200			
AS Sieve Size (mm)	19.0	37.5			
Oversize Wet (%)	0	11			
Field Wet Density (t/m <sup>3</sup> )	2.16	2.22			
Peak Converted Wet Density (t/m <sup>3</sup> )	2.03	2.12			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	3.0 dry	1.5 dry			
Hilf Density Ratio (%)	<b>106.5</b>	<b>104.5</b>			

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
 Fax: +61 3 9706 9431


**Report No: HDR:W22DS00830**

**Issue No: 1**

# HILF Density Ratio Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield, Intersection IN53-12  
**Project No.:** 1016363.IN53-12  
**Order No.:** **CG Request No.:**  
**TRN:** **Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing



Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Robinson  
 (Team Leader)  
 Date of Issue: 19/04/2022  
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## Sample Details

**Location:** Clyde  
**Client Request ID:**  
**Specification Requirements:** Minimum Hilf Density Ratio of 98% (+- 3% of OMC)  
**Field Test procedures:** AS 1289.5.8.1  
**Laboratory Test procedures:** AS 1289.5.7.1  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Source:** Onsite  
**Material:** Clay

## Sample Data

Sample ID	S22DS-02800	S22DS-02801	S22DS-02802		
Field Sample ID	1	2	3		
Date Tested	7/04/2022	7/04/2022	7/04/2022		
Time Tested	11:20	11:30	14:30		
E:	357183	357157	357092		
N:	5777497	5777511	5777508		
EL:	7.091	7.992	7.239		

## Field and Laboratory Data

Depth of Test (mm)	225	225	225		
Depth of Layer (mm)	250	250	250		
AS Sieve Size (mm)	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0		
Field Wet Density (t/m³)	2.20	2.09	2.05		
Peak Converted Wet Density (t/m³)	2.08	2.04	1.94		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	1.5 dry	1.5 dry	2.5 dry		
Hilf Density Ratio (%)	<b>105.5</b>	<b>102.5</b>	<b>105.5</b>		

## Comments



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 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
 Fax: +61 3 9706 9431

**Report No: MAT:S22DS-09967/1**

**Issue No: 1**

# Material Test Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712  
 Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 9/01/2023  
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## Sample Details

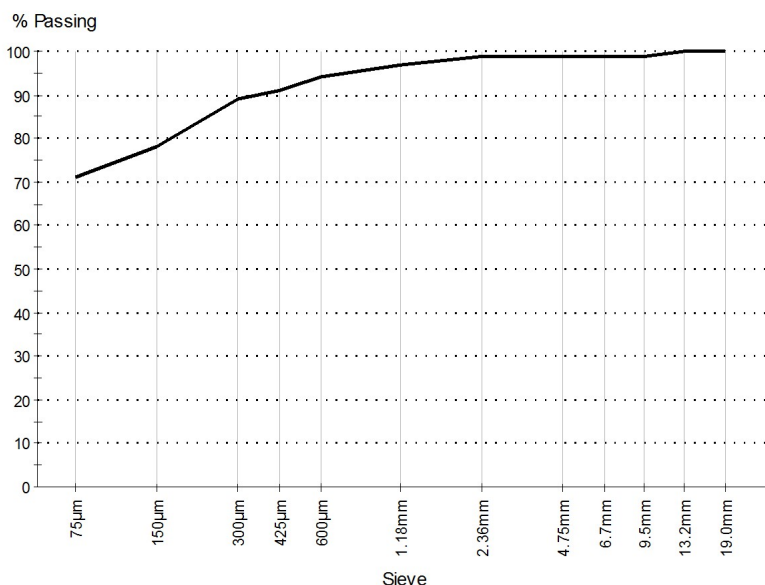
**Location:** Dam  
**Sample Location:** E: 357201, N: 5777533, RL: 5.114  
**Field Sample ID:** 1  
**Date Sampled:** 15/12/2022  
**Time Sampled:** 09:45  
**Source:** Onsite  
**Material:** Clay  
**Specification:** AS Grading  
**Sampling Method:** AS1289.1.2.1 Clause 6.4 (b)  
**Sample ID:** S22DS-09967

## Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	24.9	
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	17.5	
Mould Length (mm)		250	
Crumbling		No	

## Particle Size Distribution

AS 1289.3.6.1



**Drying By:** Oven  
**Date Tested:** 20/12/2022

**Note:** Sample Washed

Sieve Size	% Passing	Limits
19.0mm	100	100
13.2mm	100	100
9.5mm	99	99
6.7mm	99	99
4.75mm	99	99
2.36mm	99	99
1.18mm	97	97
600µm	94	94
425µm	91	91
300µm	89	89
150µm	78	78
75µm	71	71

## Comments

N/A



**Dandenong South**  
**ACN 143 009 330**  
 25 Metcalf Street  
 DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900  
 Fax: +61 3 9706 9431

**Report No: MAT:S22DS-09967/1**



**Issue No: 1**

# Material Test Report

**Client:** Greenridge Properties Pty Ltd  
**Address:** PO Box 3131  
 AUBURN VIC 3123  
**Project:** Riverfield - Stage 7  
**Project No.:** 1016363.007  
**Order No.:**  
**TRN:**

**CG Request No.:**  
**Lot No.:**

Accredited for compliance with ISO/IEC 17025  
 - Testing

Accreditation Number: 12719  
 Site Number: 12712

Approved Signatory: M. Longfield  
 (Senior Technician)  
 Date of Issue: 9/01/2023

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## Other Test Results

Description	Method	Result	Limits
Curling		Yes	
Cracking		No	
Liquid Limit (%)	AS 1289.3.1.2	57	
Plastic Limit (%)	AS 1289.3.2.1	15	
Plasticity Index (%)	AS 1289.3.3.1	42	
Date Tested		21/12/2022	

## Comments

N/A



## **Appendix D: Controlled Fill certificate**

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## CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

**PROJECT** : Lot No's: 701 to Lot 745

**Chadwick Geotechnics REF:** 1016363.007v1

**CLIENT** : Grosvenor Lodge Pty Ltd

**DATE:** 19 January 2023

PO Box 4136

DANDENONG SOUTH VIC 3164

### SUMMARY

Chadwick Geotechnics Pty Ltd conducted level 1 inspection and testing, in accordance with Section 8.2 level 1 inspection and Testing AS3798-2007, *Guidelines on earthworks for commercial and residential developments*, during the filling of the site.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved.

### LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding topsoil).

This report is based on the conditions present and factors affecting the soil at the time of inspection (6 December 2021 and was completed on 17 January 2023). No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

### CHADWICK GEOTECHNICS PTY LTD

A handwritten signature in black ink that reads 'Robert Barden'.

A handwritten signature in black ink that reads 'Timothy Chadwick'.

Per Michael DiMeglio

**Robert Barden**  
**Project Manager**

**Timothy Chadwick**  
**Project Director**

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