



REPORT

Level 1 Geotechnical Inspection and Testing Authority Services

**Riverfield Square Estate Stage 26 Lot's 2601
to 2646**

Prepared for:
Greenridge Properties Pty Ltd

10 June 2025
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1 Introduction

Chadwick Geotechnics Pty Ltd (Chadwick Geotechnics), was engaged by Greenridge Properties Pty Ltd, to provide Level 1 Geotechnical Inspection and Testing Authority (GITA) services for the earthworks conducted within Stage 26 of the Riverfield Square Estate in Clyde North between 21 August 2024 and 29 May 2025.

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

2.1 Location

Stage 26 is located to the East of Tyrian Drive and West of Brioche Parade. Cornsilk Drive runs up the centre of Stage 26.

The included works area is shown on the Site Plan in Appendix A and within **Figure 2.1** below is an extract from Nearmap.



Figure 2.1: Approximate extent of work – Stage 26 - Extract from Nearmap

2.2 Roles

The organisations and their roles are presented in Table 2.1

Table 2.1: Roles on the Project

Role	Organisation
Developer	Greenridge Properties Pty Ltd
Geotechnical Inspection and Testing Authority (GITA)	Chadwick Geotechnics Pty Ltd
Designer / Superintendent	Beveridge Williams Pty Ltd
Earthworks Contractor	Brown Property Group Pty Ltd

Chadwick Geotechnics undertook the field density testing, and the compaction control laboratory testing was conducted in our NATA accredited laboratories.

2.3 Dates on Site

Geotechnical technical and engineering staff from Chadwick Geotechnics were onsite for the duration of the earthworks program on the days shown in Table 2.2 below.

Table 2.2: Level 1 GITA – Onsite Presence

Month	Dates on site
August 2024	21, 26, 27, 28, 29, 30
September 2024	23
October 2024	17, 23, 24
January 2025	22, 29
February 2025	7, 11, 12, 13
April 2025	3, 8, 9, 10, 11, 14, 15, 16, 17, 28, 29, 30
May 2025	1, 2, 5, 6, 7, 8, 9, 12, 26, 29

2.4 Included Areas

This report is applicable to material placed by the contractor on the residential lots within Riverfield Square Estate Stage 26, as shown on **Figure 2.1** and on the Site Plan in **Appendix A**, with reference to Section 2.5 (Excluded Areas) of this report.

The following Lots were filled (or partially filled) during the Level 1 GITA supervision:

- Lot's 2601 to 2646

2.5 Excluded Areas

This report does not include fill outside the general boundary of the filled areas as shown in **Figure 2.1**. No fill was placed on the lots not mentioned in Section 2.4 of this report.

Backfill of trenches for the underground services, fill on footpaths, driveways and roads, or placement of topsoil, were not part of the scope for the works supervised by Chadwick Geotechnics.

3 Specifications

The works were to be conducted in general accordance with the 'Guidelines on earthworks for commercial and residential developments' of AS 3798-2007.

The following items were adopted as part of the project earthworks specifications:

- All Filling, in excess, of 200mm depth within the residential lots shall be undertaken to specifications satisfying the requirements of AS 3798-2007 "Guidelines on Earthworks for Commercial and Residential Development".
- 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 prior to placement of an engineered fill.
- Fill to be compacted in near horizontal layers not exceeding 250mm loose thickness.
- Compaction to achieve a ratio of at least 95% Standard Maximum Dry Density (SMDD).
- Moisture content of the fill material is to be within $\pm 3\%$ of the soils Standard Optimum Moisture Content (SOMC).
- Frequency of testing to be in accordance with Table 8.1 of AS3798-2007.

4 Inspection and Testing

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 Table 8.1 (explained in Section 4.5 of this report). Compaction control laboratory testing was performed in a Chadwick Geotechnics NATA accredited laboratory in accordance with AS1289 'Methods of Testing Soils for Engineering Purposes'.

4.1 Earthworks

The earthworks for the project comprised of the following phases:

- Stripping of topsoil from the proposed fill areas.
- Assessment, remediation, and proof rolling of subgrade.
- Geotechnical compliance testing of the soils used for fill.
- Placement and compaction of engineered fill.

4.2 Fill material

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

Samples taken from the site stockpiles comprising local material used for fill were taken for geotechnical compliance testing during the works. The material compliance test results are summarised in **Table 4.1 below**. The laboratory test certificates are attached in **Appendix C**.

Table 4.1: Compliance test Result Summary

Sample #	Particle Size Distribution (PSD)						Liquid Limit %	Plastic Limit %	Plasticity Index %
	37.5 mm	13.2 mm	4.75 mm	1.18 mm	425 μm	0.75 μm			
S24DS-06038/1	100	98	97	94	84	35	27	13	14
S25DS-02818/1	100	100	99	91	73	49	46	23	23
S25DS-03373/1	100	100	97	92	87	80	35	17	18

The laboratory test result indicated material is clay of medium plasticity and satisfied the requirements of the Specification.

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 material imported and placed at the site by Brown Property Group was assessed by the Superintendent as being derived from natural soils and meeting the classification of 'Fill Material' as defined in EPA publication 1828.2-2021 "Waste disposal categories – characteristics and thresholds". Environmental testing of the material was not within Chadwick Geotechnics' scope.

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

Photographs of typical materials used during construction are shown below.

Photograph 4.1: Photographs of the material used on site

Photograph 1: sandy clay imported material used on site



Photograph 2: sandy clay material

4.3 Subgrade Assessment / Proof Roll

The Subgrade of the site was progressively assessed during the period Chadwick Geotechnics personnel were on site.

Subgrade assessments were conducted following the removal of natural grasses and topsoil that was present on site.

The subgrade inspection was performed in accordance with the Level 1 guidelines presented in AS 3798-2007 Section 5.5. No soft spots or deflections were encountered during the inspections and the area was found to be firm and free of vegetation and other deleterious material.

Two photographs of the subgrade assessment phase at the project are shown below.

Photograph 4.2: Subgrade assessment photographs



Photograph 3: HAM Padfoot



Photograph 4: Subgrade assessment using loaded dump truck

4.4 Engineered Fill Construction

All fill material was brought by dump trucks and truck and trailers from the local stockpiles and imported from approved sources, spread with a bulldozer and compacted with a pad foot roller. A water cart was present onsite during the works for moisture conditioning of the materials.

All fill material was placed in lift sequences comprising horizontal layers. Chadwick Geotechnics verified that the surface of the stripped area, and that of additional lifts, was thoroughly scarified and moisture conditioned prior to placement of additional layers to prevent delamination at the layer interface. Once the placed fill was approved, the layer was compacted accordingly. Chadwick Geotechnics personnel were on site on a fulltime basis during the placement, moisture conditioning, compaction, and testing of the fill on the dates noted in Table 2.2 of this report.

The following machinery was on site during earthworks.

Table 4.2: Earthworks plant on site

Equipment type	Model
Dozer	CAT D6
Pad foot roller	HAM 20 T and BPG 18 T Vibrating Pad Foot Roller
Water cart	Volvo 25 T and road going truck
Dump Trucks	Volvo A256
Excavator	CAT 25 T
Truck and Trailer	Various road going truck models

Photographs of typical machinery on site used during construction are shown below.

Photograph 4.3: General Earthwork machinery and fill construction photographs



Photograph 5: Dozer used during fill construction



Photograph 6: truck and trailers used during fill construction



Photograph 7: Water cart during fill construction



Photograph 8: Excavator used during fill construction

4.5 Density and Moisture testing

Field density and moisture content testing was undertaken progressively during the construction on the compacted fill 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 determinations in accordance with AS 1289.5.7.1. Test locations were recorded using a handheld GPS unit. A site plan showing the field density test locations is provided in **Appendix A**.

Testing was undertaken under the frequencies listed below, subject to the area and volume worked on the day of testing:

- 1 test per material type per layer per 2500m² or 1 test per 500m³ distributed reasonably evenly or 3 tests per lot – whichever requires the most tests in accordance with Type 1 Earthworks (large scale operations) as defined in Table 8.1 of the AS 3798-2007;

Eighty Four (84) tests were performed during the filling process. Thirteen (13) of the tests did not achieve the required density and or moisture ratio initially. The failed areas were reworked and retested accordingly. The retests returned passing density and moisture test results.

A summary table of HILF density tests is provided in **Appendix B** and the laboratory test reports are provided in **Appendix C**. Two photographs of field density testing conducted on site are shown below.

Photograph 4.4: Field Density / Moisture Testing photographs



Photo 9: Field density/moisture test



Photo 10: Field density/moisture test

5 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 to be determined, that:

- The materials, used by the earth-works contractor met the geotechnical property requirements of the specification.
- The sourced fill was, considered to be natural, clean, and suitable for use at the site.
- 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 clay achieved the density requirement of the specification.
- Given the consistent construction practices followed by the earthworks contractor and as witnessed by the 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.
- Based on observations made by Chadwick Geotechnics Level 1 personal and the results of field and laboratory tests, we consider that the engineered fill within the site (noted in Section 2.5), as far as we have been able to reasonably determine, have been placed in general accordance with the intent of the specification.
- It is our opinion that the earthworks undertaken have been performed in accordance with the requirements of Section 8.2 – Level 1 Inspection and Testing - AS3798-2007 Guidelines on Earthworks for Commercial and Residential Developments.
- Chadwick Geotechnics completed its Inspection and testing services on, 2 April 2025. After this date, the maintenance of the fill is the sole responsibility of the Contractor. If the fill is not well maintained or protected with a sacrificial layer of topsoil or other fill, the uppermost layers and the exposed faces of the engineered fill may deteriorate, as, a result of exposure to varying weather conditions which can cause cracking or heaving of the fill.
- Any deterioration will need to be remediated prior to further construction on the site. Chadwick Geotechnics has not provided supervision since the above date and is not responsible for any subsequent deterioration that may have occurred or may occur since that date.

6 Applicability

This report has been prepared for the exclusive use of our client Greenridge Properties Pty Ltd in good faith and in accordance with the Chadwick Geotechnics quality system for the earthworks filling at the site.

This report is based on the nature of the project and the prevailing conditions between 21 August 2024 and 29 May 2025. No responsibility or liability will be accepted, and Chadwick Geotechnics is indemnified to the full extent permitted by law in respect of the use of this report where there has been a change in the nature of the project or the conditions on site that may alter or affect the conclusions of this report.

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:



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Robert Barden

Project Manager

Authorised for Chadwick Geotechnics Pty Ltd by:

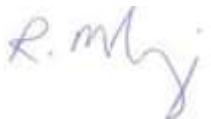


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Michael DiMeglio

Project Director

Report reviewed by:



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Robert McKenzie

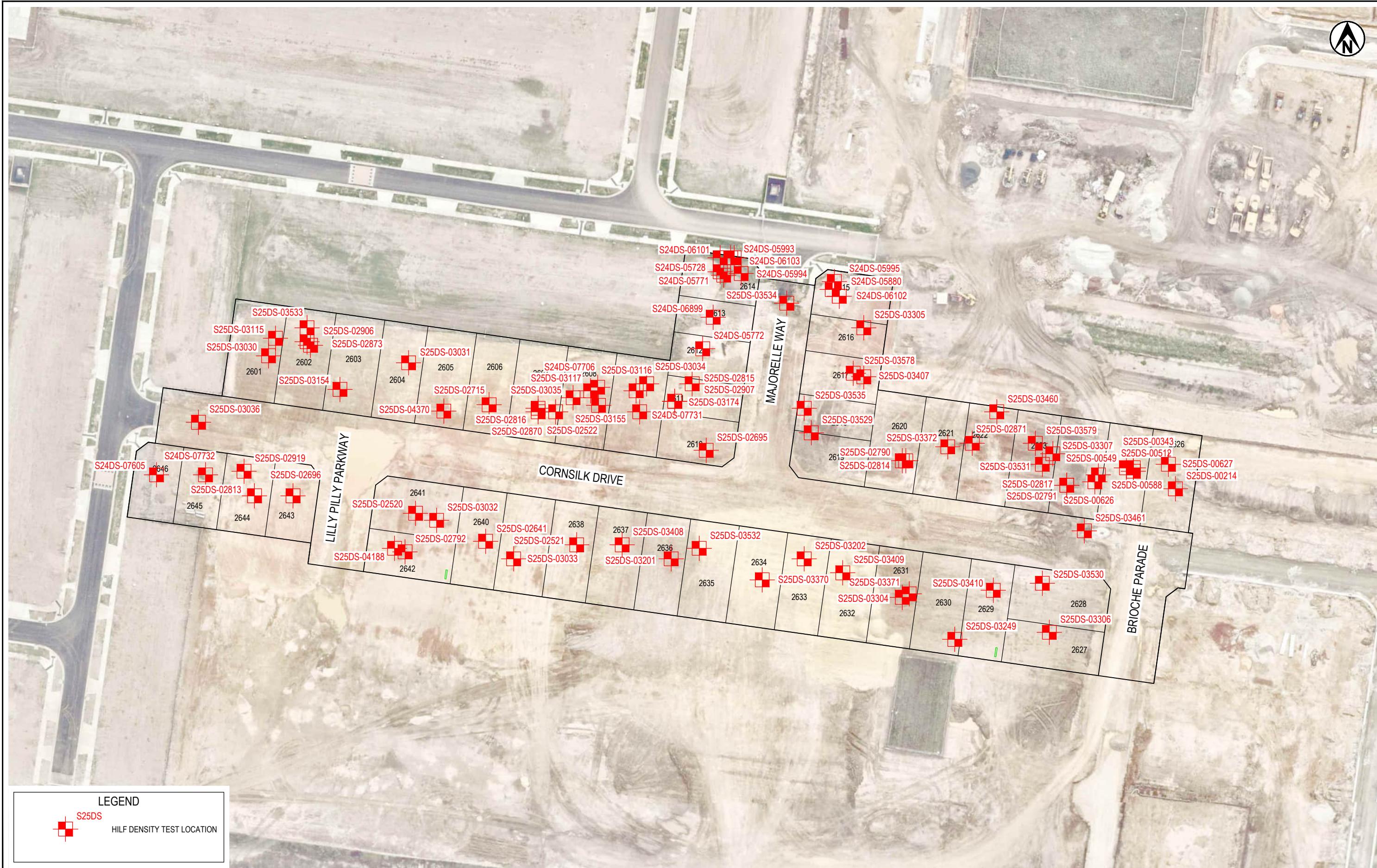
Principal Geotechnical Engineer

PE0005222

RHB

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Appendix A Test Location Plan



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NOTES:
1. AERIAL IMAGE SOURCED FROM NEARMAP. COPYRIGHT NEARMAP PTY LTD IMAGERY DATE: 04/05/2025.
2. BASE PLAN PROVIDED BY GREENRIDGE PROPERTIES PTY LTD DRAWING REFERENCE: 2101578-26-BASE_20240611.dwg
DATE RECEIVED: 20/05/2025.

A3 SCALE 1:1000

ORIGINAL IN COLO

PROJECT No. 1091938.026		
DESIGNED	RHB	May.25
DRAWN	KMJA	May.25
CHECKED	RHB	May.25
R. BARDEN	26.05.2025	
APPROVED	DATE	

CLIENT GREENRIDGE PROPERTIES PTY LTD
PROJECT RIVERFIELD SQUARE ESTATE - STAGE 26
TITLE LEVEL ONE HILF DENSITY TESTING
HILF DENSITY TEST LOCATION PLAN

SCALE (A3) 1:1000 FIG No. 1091938.026-F01

REV 1

Appendix B HILF Density Test Summary



Riverfield Square Estate, 1091938.026 Stage 26

Chadwick Geotechnics
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Dandenong South VIC 3175
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Density Testing - Field Summary

Report No	Sample No	Date	Test Number	Lot No	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W24DS01378	S24DS-05728	21/08/2024	1	2614 / 1	355302	5778432	17.763	100	1 wet	Pass	
HDR:W24DS01396	S24DS-05771	26/08/2024	1	2614 / -	355303	5778431	17.845	95.5	3 wet	Pass	
HDR:W24DS01396	S24DS-05772	26/08/2024	2	2612 / 3	355297	5778410	17.769	95	3 wet	Pass	
HDR:W24DS01423	S24DS-05880	27/08/2024	1	2615 / 1	355334	5778427	17.943	96	2.5 wet	Pass	
HDR:W24DS01443	S24DS-05993	29/08/2024	1	2614 / -	355305	5778436	18.637	91.5	0 wet	Fail	See Retest S24DS-06103
HDR:W24DS01443	S24DS-05994	29/08/2024	2	2614 / -	355308	5778432	18.531	99	1.5 wet	Pass	
HDR:W24DS01443	S24DS-05995	29/08/2024	3	2615 / -	355335	5778429	18.531	97	1 wet	Pass	
HDR:W24DS01462	S24DS-06101	30/08/2024	1	2614 / -	355302	5778436	19.021	95.5	3 wet	Pass	
HDR:W24DS01462	S24DS-06102	30/08/2024	2	2615 / -	355336	5778425	18.504	95	3 wet	Pass	
HDR:W24DS01462	S24DS-06103	30/08/2024	3	2614 / -	355306	5778436	18.725	99	1.5 wet	Pass	Retest of S24DS-05993
HDR:W24DS01658	S24DS-06899	23/09/2024	1	2316 / 4	355300	5778419	18.956	97.5	2.5 wet	Pass	
HDR:W24DS01838	S24DS-07605	17/10/2024	1	2646 / 1	355141	5778374	19.771	101.5	2 dry	Pass	
HDR:W24DS01870	S24DS-07706	23/10/2024	1	2608 / 1	355267	5778399	17.712	97.5	0 dry	Pass	
HDR:W24DS01880	S24DS-07731	24/10/2024	1	2609 / 2	355279	5778392	17.85	98.5	2.5 wet	Pass	
HDR:W24DS01880	S24DS-07732	24/10/2024	2	2645 / 4	355155	5778374	19.94	102.5	0.5 wet	Pass	
HDR:W25DS00069	S25DS-00214	22/01/2025	1	2626 / 2	355432	5778370	15.659	96	1.5 dry	Pass	
HDR:W25DS00105	S25DS-00343	29/01/2025	1	2625 / 3	355420	5778376	16.661	96	2 dry	Pass	
HDR:W25DS00167	S25DS-00512	7/02/2025	1	2625 / 4	355418	5778376	17.2	99.5	2.5 dry	Pass	
HDR:W25DS00180	S25DS-00549	11/02/2025	1	2624 / 7	355410	5778374	17.693	103.5	3 dry	Pass	
HDR:W25DS00197	S25DS-00588	12/02/2025	1	2625 / 8	355420	5778375	17.679	92.5	2.5 dry	Fail	See Retest S25DS-00626
HDR:W25DS00216	S25DS-00626	13/02/2025	1	2625 / -	355409	5778372	17.67	103.5	2.5 dry	Pass	Retest of S25DS-00588
HDR:W25DS00216	S25DS-00627	13/02/2025	2	2626 / -	355430	5778377	18.236	109.5	2.5 dry	Pass	



Riverfield Square Estate, 1091938.026 Stage 26

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Density Testing - Field Summary

Report No	Sample No	Date	Test Number	Lot No	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W25DS00658	S25DS-02520	3/04/2025	1	2641 / 1	355215	5778363	18.672	97.5	3 dry	Pass	
HDR:W25DS00658	S25DS-02521	3/04/2025	2	2638 / 1	355261	5778354	18.234	102.5	2.5 dry	Pass	
HDR:W25DS00658	S25DS-02522	3/04/2025	3	2607 / 1	355255	5778392	18.19	100	1 wet	Pass	
HDR:W25DS00695	S25DS-02641	8/04/2025	1	2640 / 2	355235	5778355	18.684	96.5	0 wet	Pass	
HDR:W25DS00713	S25DS-02695	9/04/2025	1	2610 / 2	355298	5778381	17.78	99	0.5 wet	Pass	
HDR:W25DS00713	S25DS-02696	9/04/2025	2	2643 / 2	355180	5778368	19.255	98.5	0.5 wet	Pass	
HDR:W25DS00721	S25DS-02715	10/04/2025	1	2606 / 2	355236	5778394	18.52	97.5	0 wet	Pass	
HDR:W25DS00741	S25DS-02790	11/04/2025	1	Road Reserve / 3	355354	5778378	15.1	100	4.5 dry	Fail	See Retest S25DS-02814
HDR:W25DS00741	S25DS-02791	11/04/2025	2	Road Reserve / 4	355401	5778371	15.92	93	3.5 dry	Fail	See Retest S25DS-02817
HDR:W25DS00741	S25DS-02792	11/04/2025	3	2642 / 4	355212	5778352	19.034	98	0.5 dry	Pass	
HDR:W25DS00749	S25DS-02813	14/04/2025	1	2644 / 4	355169	5778368	19.611	99	0 wet	Pass	
HDR:W25DS00749	S25DS-02814	14/04/2025	2	Road Reserve / 3	355355	5778378	15.092	95.5	0 dry	Pass	Retest of S25DS-02790
HDR:W25DS00749	S25DS-02815	14/04/2025	5	2611 / 5	355294	5778400	18.534				*FAILED HILF - Converted to MDD
HDR:W25DS00749	S25DS-02816	14/04/2025	3	2607 / 5	355250	5778392	18.662	91	2.5 wet	Fail	See Retest S25DS-02870
HDR:W25DS00749	S25DS-02817	14/04/2025	4	Road Reserve / 4	355401	5778371	15.91	95	1 dry	Pass	Retest of S25DS-02791
DDR:W25DS00756	S25DS-02836	14/04/2025	5	2611	355294	5778400	18.534	88.5	5.5 Wet	Fail	From test number S25DS-02815, See Retest 2907
HDR:W25DS00766	S25DS-02870	15/04/2025	1	2607 / 5	355250	5778393	18.659	96.5	2.5 wet	Pass	Retest of S25DS-02816
HDR:W25DS00766	S25DS-02871	15/04/2025	2	2602 / 6	355374	5778383	16.97	95	0.5 dry	Pass	
DDR:W25DS00767	S25DS-02873	15/04/2025	6	2602	355185	5778411	19.094	92	5.0 Wet	Fail	See Retest S25DS-02906
HDR:W25DS00777	S25DS-02906	16/04/2025	1	2602	355184	5778412	-	94	3.5 wet	Fail	Retest of S25DS-02873 See Retest S25DS-03533
HDR:W25DS00777	S25DS-02907	16/04/2025	2	2611 / -	355289	5778395	18.65	94	2 wet	Fail	Retest of 2836, See Retest S25DS-03174
HDR:W25DS00781	S25DS-02919	16/04/2025	1	2644 / 6	355166	5778375	19.91	95.5	1.5 dry	Pass	
HDR:W25DS00804	S25DS-03030	17/04/2025	1	2601 / 5	355173	5778408	19.503	94.5	2 dry	Fail	See Retest S25DS-03115



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Density Testing - Field Summary

Report No	Sample No	Date	Test Number	Lot No	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W25DS00804	S25DS-03031	17/04/2025	2	2604 / 5	355213	5778406	19.246	95	0 dry	Pass	
HDR:W25DS00804	S25DS-03032	17/04/2025	3	2641 / 5	355221	5778361	19.232	97	0 dry	Pass	
HDR:W25DS00804	S25DS-03033	17/04/2025	4	2639 / 5	355243	5778350	19.238	96.5	0 wet	Pass	
HDR:W25DS00804	S25DS-03034	17/04/2025	5	2609 / 5	355281	5778400	18.963	91.5	2.5 wet	Fail	See Retest S25DS-03116
HDR:W25DS00804	S25DS-03035	17/04/2025	6	2608 / 6	355260	5778396	19.2336	94	0 wet	Fail	See Retest S25DS-03117
HDR:W25DS00804	S25DS-03036	17/04/2025	7	Road Reserve / -	355153	5778389	18.532	100.5	0.5 dry	Pass	
HDR:W25DS00831	S25DS-03115	28/04/2025	1	2601 / 5	355175	5778413	19.479	98	0 dry	Pass	Retest of S25DS-03030
HDR:W25DS00831	S25DS-03116	28/04/2025	2	2609 / 5	355278	5778398	18.902	103.5	1.5 dry	Pass	Retest of S25DS-03034
HDR:W25DS00831	S25DS-03117	28/04/2025	3	2608 / 5	355265	5778398	19.012	98.5	0.5 wet	Pass	Retest of S25DS-03035
HDR:W25DS00841	S25DS-03154	29/04/2025	1	2603 / -	355193.4	5778398.39	19.523	99	2.5 dry	Pass	
HDR:W25DS00841	S25DS-03155	29/04/2025	2	2608 / -	355267	5778394	19.163	99	2.5 dry	Pass	
HDR:W25DS00847	S25DS-03174	30/04/2025	1	2611 / 5	355289	5778395	18.65	98	0 wet	Pass	Retest of S25DS-02907
HDR:W25DS00859	S25DS-03201	1/05/2025	1	2636 / 1	355288	5778350	17.996	97.5	0.5 wet	Pass	
HDR:W25DS00859	S25DS-03202	1/05/2025	2	2633 / 1	355326	5778350	17.734	98.5	0 dry	Pass	
HDR:W25DS00873	S25DS-03249	2/05/2025	1	2630 / 1	355369	5778327	17.297	96	1.5 dry	Pass	
HDR:W25DS00890	S25DS-03304	5/05/2025	1	2631 / 2	355354	5778339	17.622	93.5	1 dry	Fail	See Retest S25DS-03371
HDR:W25DS00890	S25DS-03305	5/05/2025	2	2616 / 1	355343	5778416	17.993	95.5	2 wet	Pass	
HDR:W25DS00890	S25DS-03306	5/05/2025	3	2627 / 2	355396	5778329	17.43	105.5	1 dry	Pass	
HDR:W25DS00890	S25DS-03307	5/05/2025	4	2623 / 1	355397	5778380	17.407	98	0.5 wet	Pass	
HDR:W25DS00909	S25DS-03370	6/05/2025	1	2634 / 5	355314	5778344	18.446	100.5	0.5 dry	Pass	
HDR:W25DS00909	S25DS-03371	6/05/2025	2	2631 / -	355356	5778340	17.987	100.5	1 dry	Pass	Retest of S25DS-03304
HDR:W25DS00909	S25DS-03372	6/05/2025	3	2621 / 3	355367	5778382	17.738	97.5	3 wet	Pass	

Density Testing - Field Summary

Report No	Sample No	Date	Test Number	Lot No	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W25DS00923	S25DS-03407	7/05/2025	1	2617 / 3	355343	5778402	18.078	100	2 dry	Pass	
HDR:W25DS00923	S25DS-03408	7/05/2025	2	2637 / 6	355274	5778354	18.802	96.5	1 dry	Pass	
HDR:W25DS00923	S25DS-03409	7/05/2025	3	2632 / 6	355337	5778346	18.47	99.5	0 dry	Pass	
HDR:W25DS00923	S25DS-03410	7/05/2025	4	2629 / 4	355380	5778341	18.126	99	0 dry	Pass	
HDR:W25DS00931	S25DS-03460	8/05/2025	1	2622 / 4	355381 (5382.149)	5778392 (78385.714)	18.001	99	2 wet	Pass	
HDR:W25DS00931	S25DS-03461	8/05/2025	2	Road Reserve / -	355406 (5406.771)	5778358 (78351.797)	17.616	97.5	1.5 wet	Pass	
HDR:W25DS00945	S25DS-03529	9/05/2025	1	2619 / 4	355328 (5329.079)	78380.271 (5778386)	18.033	96.5	0 dry	Pass	
HDR:W25DS00945	S25DS-03530	9/05/2025	2	2628 / 7	355394 (5396.981)	5778343 (78388.358)	18.199	99	0.5 wet	Pass	
HDR:W25DS00945	S25DS-03531	9/05/2025	3	2623 / 4	355394 (5392.293)	5778377 (78368.253)	18.034	100	2 dry	Pass	
HDR:W25DS00945	S25DS-03532	9/05/2025	4	2636 / 7	355296 (5295.976)	5778353 (78347.111)	18.945	101.5	2.5 dry	Pass	
HDR:W25DS00945	S25DS-03533	9/05/2025	5	2602	355184 (5184.327)	5778416 (78409.869)	19.116	101	2.5 dry	Pass	Retest of S25DS-02906
HDR:W25DS00945	S25DS-03534	9/05/2025	6	Road Reserve / -	355321 (5321.186)	5778423 (78418.500)	17.482	96.5	2.5 dry	Pass	
HDR:W25DS00945	S25DS-03535	9/05/2025	7	2618 / 5	355326 (5329.254)	5778393 (78389.612)	18.275	99	1.5 dry	Pass	
HDR:W25DS00956	S25DS-03578	12/05/2025	1	2617 / 6	355340 (5339.715)	5778403 (78401.152)	18.87	98.5	0.5 wet	Pass	
HDR:W25DS00956	S25DS-03579	12/05/2025	2	2623 / 6	355392 (5392.157)	5778383 (78377.945)	18.362	96.5	0 dry	Pass	
HDR:W25DS01094	S25DS-04188	26/05/2025	1	2642/ final	355209 (5209.9)	5778353 (78349)	19.25	96	2.5 dry	Pass	
HDR:W25DS01133	S25DS-04370	29/05/2025	1	2605	355223	5778392	final	101.5	OMC	Pass	
											no further tests

Appendix C NATA Endorsed Reports

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 – Testing
 
 Krushik Patel
 Accreditation Number: 12719
 Site Number: 12712 Date of Issue: 2/09/2024
 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 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

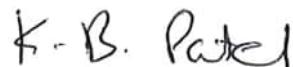
Sample ID	S24DS-05728	
Field Sample ID	1	
Date Tested	21/08/2024	
Time Tested	11:30	
E:	355302	
N:	5778432	
EL:	17.763	
Lot / Layer:	2614 / 1	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	19.5	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.05	
Field Dry Density (t/m³)	1.72	
Peak Converted Wet Density (t/m³)	2.05	
Optimum Moisture Content (%)	18.5	
Compactive Effort	Standard	
Moisture Ratio (%)	105.5	
Moisture Variation (%)	1.0 wet	
Hilf Density Ratio (%)	100.0	

Comments

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd	  	Accredited for compliance with ISO/IEC 17025 - Testing
Address:	PO Box 3131 AUBURN VIC 3123		
Project:	Riverfield Square Estate, Stage 26		
Project No.:	1091938.026		
Order No.:	CG Request No.:		
TRN:	Lot No.:		Accreditation Number: 12719 Site Number: 12712 Date of Issue: 28/08/2024 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 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Onsite
Material:	Clay

Sample Data

Sample ID	S24DS-05771	S24DS-05772	
Field Sample ID	1	2	
Date Tested	26/08/2024	26/08/2024	
Time Tested	09:10	09:30	
E:	255303	355297	
N:	5778431	5778410	
EL:	17.845	17.769	
Lot / Layer:	2614 / -	2612 / 3	
Soil Description	Clay	Clay	

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 Moisture Content (%)	19.0	17.9	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.00	2.06	
Field Dry Density (t/m³)	1.68	1.74	
Peak Converted Wet Density (t/m³)	2.10	2.16	
Optimum Moisture Content (%)	16.0	15.0	
Compactive Effort	Standard	Standard	
Moisture Ratio (%)	119.0	118.5	
Moisture Variation (%)	3.0 wet	3.0 wet	
Hilf Density Ratio (%)	95.5	95.0	

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026

Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

K. B. Patel

Accreditation Number: 12719
 Site Number: 12712 Date of Issue: 23/05/2025
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Sample Details

Location: Clyde Noth
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S24DS-05880	
Field Sample ID	1	
Date Tested	27/08/2024	
Time Tested	12:00	
E:	355334	
N:	5778427	
EL:	17.943	
Lot / Layer:	2615 / 1	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	22.0	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.99	
Field Dry Density (t/m³)	1.63	
Peak Converted Wet Density (t/m³)	2.07	
Optimum Moisture Content (%)	19.5	
Compactive Effort	Standard	
Moisture Ratio (%)	113.0	
Moisture Variation (%)	2.5 wet	
Hilf Density Ratio (%)	96.0	

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd	Accredited for compliance with ISO/IEC 17025 – Testing
Address:	PO Box 3131 AUBURN VIC 3123	
Project:	Riverfield Square Estate, Stage 26	
Project No.:	1091938.026	
Order No.:	CG Request No.:	
TRN:	Lot No.:	



K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
Site Number: 12712 (Senior Geotechnician)
Date of Issue: 23/05/2025
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 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Onsite
Material:	Clay

Sample Data

Sample ID	S24DS-05993	S24DS-05994	S24DS-05995
Field Sample ID	1	2	3
Date Tested	29/08/2024	29/08/2024	29/08/2024
Time Tested	08:45	12:20	14:15
E:	355305	355308	355335
N:	5778436	5778432	5778429
EL:	18.637	18.531	18.531
Lot / Layer:	2614 / -	2614 / -	2615 / -

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 Moisture Content (%)	16.0	15.2	15.8
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.93	2.10	2.06
Field Dry Density (t/m³)	1.66	1.82	1.78
Peak Converted Wet Density (t/m³)	2.11	2.12	2.12
Optimum Moisture Content (%)	16.0	13.5	15.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	100.5	112.5	106.5
Moisture Variation (%)	0.0	1.5 wet	1.0 wet
Hilf Density Ratio (%)	91.5	99.0	97.0

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 - Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
 Site Number: 12712 (Senior Geotechnician)
 Date of Issue: 4/09/2024
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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 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S24DS-06101	S24DS-06102	S24DS-06103
Field Sample ID	1	2	3
Date Tested	30/08/2024	30/08/2024	30/08/2024
Time Tested	09:50	10:56	13:50
E:	355302	355336	355306
N:	5778436	5778425	5778436
EL:	19.021	18.504	18.725
Lot / Layer:	2614 / -	2615 / -	2614 / -
			Retest of S24DS-05993

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 Moisture Content (%)	16.0	17.1	16.7
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.04	2.02	2.08
Field Dry Density (t/m³)	1.76	1.73	1.78
Peak Converted Wet Density (t/m³)	2.14	2.13	2.10
Optimum Moisture Content (%)	13.0	14.0	15.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	123.0	122.5	110.5
Moisture Variation (%)	3.0 wet	3.0 wet	1.5 wet
Hilf Density Ratio (%)	95.5	95.0	99.0

Comments



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

Ph: +61 3 8796 7900
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Report No: HDR:W24DS01658

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
- Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
(Senior Geotechnician)
Site Number: 12712 Date of Issue: 1/10/2024
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 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Sandy Clay

Sample Data

Sample ID	S24DS-06899
Field Sample ID	1
Date Tested	23/09/2024
Time Tested	13:07
E:	0355300
N:	5778419
RL:	18.956
Lot / Layer:	2316 / 4

Field and Laboratory Data

Depth of Test (mm)	175
Depth of Layer (mm)	200
AS Sieve Size (mm)	19.0
Oversize Wet (%)	0
Field Moisture Content (%)	17.6
Field Moisture Content Method	AS 1289.2.1.1
Field Wet Density (t/m³)	2.04
Field Dry Density (t/m³)	1.74
Peak Converted Wet Density (t/m³)	2.10
Optimum Moisture Content (%)	15.0
Compactive Effort	Standard
Moisture Ratio (%)	115.5
Moisture Variation (%)	2.5 wet
Hilf Density Ratio (%)	97.5

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 – Testing
 
 Krushik Patel
 Accreditation Number: 12719
 Approved Signatory: Krushik Patel
 (Senior Geotechnician)
 Site Number: 12712 Date of Issue: 24/10/2024
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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 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S24DS-07605	
Field Sample ID	1	
Date Tested	17/10/2024	
Time Tested	09:00	
E:	355141	
N:	5778374	
EL	19.771	
Lot / Layer:	2646 / 1	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	17.7	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.00	
Field Dry Density (t/m³)	1.70	
Peak Converted Wet Density (t/m³)	1.98	
Optimum Moisture Content (%)	20.0	
Compactive Effort	Standard	
Moisture Ratio (%)	89.5	
Moisture Variation (%)	2.0 dry	
Hilf Density Ratio (%)	101.5	

Comments

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	<p>Accredited for compliance with ISO/IEC 17025 – Testing</p> <p> </p> <p>K. B. Patel</p> <p>Accreditation Number: 12719 Approved Signatory: Krushik Patel (Senior Geotechnician) Site Number: 12712 Date of Issue: 29/10/2024 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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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 1289.2.1.1, AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S24DS-07706	
Field Sample ID	1	
Date Tested	23/10/2024	
Time Tested	14:30	
E:	355267	
N:	5778399	
EL:	17.712	
Lot / Layer:	2608 / 1	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	16.0	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.04	
Field Dry Density (t/m³)	1.75	
Peak Converted Wet Density (t/m³)	2.09	
Optimum Moisture Content (%)	16.0	
Compactive Effort	Standard	
Moisture Ratio (%)	99.5	
Moisture Variation (%)	0.0	
Hilf Density Ratio (%)	97.5	

Comments

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd	  Accredited for compliance with ISO/IEC 17025 - Testing
Address:	PO Box 3131 AUBURN VIC 3123	
Project:	Riverfield Square Estate, Stage 26	
Project No.:	1091938.026	
Order No.:	CG Request No.:	
TRN:	Lot No.:	

Accreditation Number: 12719
Approved Signatory: Krushik Patel
(Senior Geotechnician)
Site Number: 12712 Date of Issue: 29/10/2024
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

K. B. Patel

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 1289.2.1.1, AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Imported

Material: Clay

Sample Data

Sample ID	S24DS-07731	S24DS-07732	
Field Sample ID	1	2	
Date Tested	24/10/2024	24/10/2024	
Time Tested	11:20	11:30	
E:	355279	355155	
N:	5778392	5778374	
EL:	17.850	19.940	
Lot / Layer:	2609 / 2	2645 / 4	

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 Moisture Content (%)	17.0	19.5	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.08	2.01	
Field Dry Density (t/m³)	1.78	1.68	
Peak Converted Wet Density (t/m³)	2.12	1.96	
Optimum Moisture Content (%)	14.5	19.5	
Compactive Effort	Standard	Standard	
Moisture Ratio (%)	118.0	101.5	
Moisture Variation (%)	2.5 wet	0.5 wet	
Hilf Density Ratio (%)	98.5	102.5	

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026

Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

K. B. Patel

Accreditation Number: 12719
 Site Number: 12712 Date of Issue: 28/01/2025
 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 1289.2.1.1, AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S25DS-00214	
Field Sample ID	1	
Date Tested	22/01/2025	
Time Tested	14:20	
E:	355432	
N:	5778370	
EL:	15.659	
Lot / Layer:	2626 / 2	

Field and Laboratory Data

Depth of Test (mm)	125	
Depth of Layer (mm)	150	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	15.7	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.94	
Field Dry Density (t/m³)	1.68	
Peak Converted Wet Density (t/m³)	2.02	
Optimum Moisture Content (%)	17.5	
Compactive Effort	Standard	
Moisture Ratio (%)	90.5	
Moisture Variation (%)	1.5 dry	
Hilf Density Ratio (%)	96.0	

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026

Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

K. B. Patel

Accreditation Number: 12719
 Site Number: 12712 Date of Issue: 3/02/2025
 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 1289.2.1.1, AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S25DS-00343	
Field Sample ID	1	
Date Tested	29/01/2025	
Time Tested	15:00	
E:	355420	
N:	5778376	
EL:	16.661	
Lot / Layer:	2625 / 3	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	7	
Field Moisture Content (%)	12.5	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.00	
Field Dry Density (t/m³)	1.78	
Peak Converted Wet Density (t/m³)	2.08	
Optimum Moisture Content (%)	14.5	
Compactive Effort	Standard	
Moisture Ratio (%)	85.5	
Moisture Variation (%)	2.0 dry	
Hilf Density Ratio (%)	96.0	

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 - Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
 Site Number: 12712 (Senior Geotechnician)
 Date of Issue: 1/03/2025
 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 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-00512	
Field Sample ID	1	
Date Tested	7/02/2025	
Time Tested	07:50	
E:	355418	
N:	5778376	
EL:	17.2	
Lot / Layer:	2625 / 4	

Field and Laboratory Data

Depth of Test (mm)	125	
Depth of Layer (mm)	150	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	14.0	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.00	
Field Dry Density (t/m³)	1.75	
Peak Converted Wet Density (t/m³)	2.01	
Optimum Moisture Content (%)	16.5	
Compactive Effort	Standard	
Moisture Ratio (%)	84.0	
Moisture Variation (%)	2.5 dry	
Hilf Density Ratio (%)	99.5	

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 – Testing
 
 Krushik Patel
 Accreditation Number: 12719
 Site Number: 12712 Date of Issue: 1/03/2025
 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 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-00549	
Field Sample ID	1	
Date Tested	11/02/2025	
Time Tested	11:30	
E:	355410	
N:	5778374	
EL:	17.693	
Lot / Layer:	2624 / 7	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	19.2	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.97	
Field Dry Density (t/m³)	1.65	
Peak Converted Wet Density (t/m³)	1.90	
Optimum Moisture Content (%)	22.0	
Compactive Effort	Standard	
Moisture Ratio (%)	87.0	
Moisture Variation (%)	3.0 dry	
Hilf Density Ratio (%)	103.5	

Comments

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	<p>Accredited for compliance with ISO/IEC 17025 – Testing</p> <p> </p> <p>K. B. Patel</p> <p>Accreditation Number: 12719 Site Number: 12712 Date of Issue: 1/03/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-00588
Field Sample ID	1
Date Tested	12/02/2025
Time Tested	15:50
E:	355470
N:	5778375
EL:	17.679
Lot / Layer:	2625 / 8

Field and Laboratory Data

Depth of Test (mm)	175
Depth of Layer (mm)	200
AS Sieve Size (mm)	19.0
Oversize Wet (%)	0
Field Moisture Content (%)	11.3
Field Moisture Content Method	AS 1289.2.1.1
Field Wet Density (t/m³)	1.87
Field Dry Density (t/m³)	1.68
Peak Converted Wet Density (t/m³)	2.01
Optimum Moisture Content (%)	13.5
Compactive Effort	Standard
Moisture Ratio (%)	82.0
Moisture Variation (%)	2.5 dry
Hilf Density Ratio (%)	92.5

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 - Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
 Site Number: 12712 (Senior Geotechnician)
 Date of Issue: 1/03/2025
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-00626	S25DS-00627	
Field Sample ID	1	2	
Date Tested	13/02/2025	13/02/2025	
Time Tested	09:40		
E:	355420	355420	
N:	5778376	5778377	
EL:	17.670	18.236	
Lot / Layer:	2625 / -	2626 / -	
	Retest of S25DS-00588		

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 Moisture Content (%)	18.2	25.0	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.02	2.00	
Field Dry Density (t/m³)	1.71	1.60	
Peak Converted Wet Density (t/m³)	1.95	1.83	
Optimum Moisture Content (%)	20.5	27.5	
Compactive Effort	Standard	Standard	
Moisture Ratio (%)	88.5	91.0	
Moisture Variation (%)	2.5 dry	2.5 dry	
Hilf Density Ratio (%)	103.5	109.5	

Comments

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd	  Accredited for compliance with ISO/IEC 17025 - Testing
Address:	PO Box 3131 AUBURN VIC 3123	
Project:	Riverfield Square Estate, Stage 26	
Project No.:	1091938.026	
Order No.:	CG Request No.:	
TRN:	Lot No.:	

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-02520	S25DS-02521	S25DS-02522
Field Sample ID	1	2	3
Date Tested	3/04/2025	3/04/2025	3/04/2025
Time Tested	08:30	14:00	14:20
E:	355215	355261	355255
N:	5778363	5778354	5778392
EL:	18.672	18.234	18.191
Lot / Layer:	2641 / 1	2638 / 1	2607 / 1

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 Moisture Content (%)	16.5	14.9	24.4
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.91	2.01	1.97
Field Dry Density (t/m³)	1.64	1.75	1.59
Peak Converted Wet Density (t/m³)	1.96	1.96	1.97
Optimum Moisture Content (%)	19.5	17.0	23.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	85.5	86.5	103.5
Moisture Variation (%)	3.0 dry	2.5 dry	1.0 wet
Hilf Density Ratio (%)	97.5	102.5	100.0

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 - Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
 Site Number: 12712 (Senior Geotechnician)
 Date of Issue: 28/04/2025
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Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-02641	
Field Sample ID	1	
Date Tested	8/04/2025	
Time Tested	15:30	
E:	355235	
N:	5778355	
EL:	18.684	
Lot / Layer:	2640 / 2	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	18.3	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.98	
Field Dry Density (t/m³)	1.67	
Peak Converted Wet Density (t/m³)	2.05	
Optimum Moisture Content (%)	18.0	
Compactive Effort	Standard	
Moisture Ratio (%)	101.0	
Moisture Variation (%)	0.0	
Hilf Density Ratio (%)	96.5	

Comments

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd	Accredited for compliance with ISO/IEC 17025 – Testing
Address:	PO Box 3131 AUBURN VIC 3123	
Project:	Riverfield Square Estate, Stage 26	
Project No.:	1091938.026	
Order No.:	CG Request No.:	
TRN:	Lot No.:	




Accreditation Number: 12719 Approved Signatory: J. Lamont
Site Number: 12712 (Base Laboratory Manager -
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Date of Issue: 5/06/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-02695	S25DS-02696
Field Sample ID	1	2
Date Tested	9/04/2025	9/04/2025
Time Tested	11:30	12:15
E:	355298	355180
N:	5778381	5778368
EL:	17.780	19.255
Lot / Layer:	2610 / 2	2643 / 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 Moisture Content (%)	24.9	24.3
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.96	1.95
Field Dry Density (t/m³)	1.57	1.57
Peak Converted Wet Density (t/m³)	1.98	1.99
Optimum Moisture Content (%)	24.0	24.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	103.0	102.5
Moisture Variation (%)	0.5 wet	0.5 wet
Hilf Density Ratio (%)	99.0	98.5

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd	  <p>K. B. Patel</p>	Accredited for compliance with ISO/IEC 17025 – Testing
Address:	PO Box 3131 AUBURN VIC 3123		Accreditation Number: 12719 Site Number: 12712 Date of Issue: 27/04/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL
Project:	Riverfield Square Estate, Stage 26		Approved Signatory: Krushik Patel (Senior Geotechnician)
Project No.:	1091938.026		
Order No.:	CG Request No.:		
TRN:	Lot No.:		

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-02715	
Field Sample ID	1	
Date Tested	10/04/2025	
Time Tested	09:20	
E:	355236	
N:	5778394	
EL:	18.520	
Lot / Layer:	2606 / 2	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	24.1	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.94	
Field Dry Density (t/m³)	1.56	
Peak Converted Wet Density (t/m³)	1.99	
Optimum Moisture Content (%)	24.0	
Compactive Effort	Standard	
Moisture Ratio (%)	101.0	
Moisture Variation (%)	0.0	
Hilf Density Ratio (%)	97.5	

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026

Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
 Site Number: 12712 (Senior Geotechnician)
 Date of Issue: 27/04/2025
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-02790	S25DS-02791	S25DS-02792
Field Sample ID	1	2	3
Date Tested	11/04/2025	11/04/2025	11/04/2025
Time Tested	09:00	09:15	09:30
E:	355354	355401	355212
N:	5778378	5778371	5778352
EL:	15.100	15.920	19.034
Lot / Layer:	Road Reserve / 3	Road Reserve / 4	2642 / 4

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	12	0
Field Moisture Content (%)	17.6	15.0	21.9
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.91	1.82	1.98
Field Dry Density (t/m³)	1.63	1.59	1.62
Peak Converted Wet Density (t/m³)	1.92	1.97	2.02
Optimum Moisture Content (%)	22.0	19.0	22.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	80.0	78.0	99.0
Moisture Variation (%)	4.5 dry	3.5 dry	0.5 dry
Hilf Density Ratio (%)	100.0	93.0	98.0

Comments

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd
Address:	PO Box 3131 AUBURN VIC 3123
Project:	Riverfield Square Estate, Stage 26
Project No.:	1091938.026
Order No.:	CG Request No.:
TRN:	Lot No.:

Accredited for compliance with ISO/IEC 17025 – Testing	
	
Accreditation Number: 12719	Approved Signatory: J. Lamont (Discipline Manager - CMT)
Site Number: 12712 Date of Issue: 17/04/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL	

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-02813	S25DS-02814	S25DS-02815	S25DS-02816	S25DS-02817
Field Sample ID	1	2	3	4	5
Date Tested	14/04/2025	14/04/2025	14/04/2025	14/04/2025	14/04/2025
Time Tested	08:15	14:15	14:45	15:00	15:30
E:	355169	355355	355294	355250	355401
N:	5778368	5778378	5778400	5778392	5778371
EL:	19.611	15.092	18.534	18.662	15.910
Lot / Layer:	2644 / 4	Road Reserve / 3	2611 / 5	2607 / 5	Road Reserve / 4
		Retest of S25DS-02790	*FAILED HILF - Converted to MDD		Retest of S25DS-02791

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 Moisture Content (%)	21.8	21.2		25.2	14.5
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1		AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.98	1.90		1.81	1.95
Field Dry Density (t/m³)	1.62	1.56		1.44	1.70
Peak Converted Wet Density (t/m³)	2.00	1.99	0.00	1.99	2.05
Optimum Moisture Content (%)	22.0	21.5		22.5	15.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	100.5	99.0		111.5	94.5
Moisture Variation (%)	0.0	0.0		2.5 wet	1.0 dry
HILF Density Ratio (%)	99.0	95.5		91.0	95.0

Comments

Dry Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 – Testing
 
 Krushik Patel
 Accreditation Number: 12719
 Approved Signatory: Krushik Patel
 (Senior Geotechnician)
 Site Number: 12712 Date of Issue: 27/04/2025
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Dry Density Ratio of 95% Standard Compaction
Field Test Procedures: AS 1289.5.8.1
Laboratory Test Procedures: AS 1289.2.1.1, AS 1289.5.4.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-02836		
Field Sample ID	1		
Date Tested	14/04/2025		
Time Tested	14:45		
E:	355294		
N:	5778400		
EL:	18.534		
Lot / Layer:	2611 / 5		

Field and Laboratory Data

Sample ID	S25DS-02836		
Depth of Test (mm)	175		
Depth of Layer (mm)	200		
Compactive Effort	Standard		
AS Sieve Size (mm)	19.0		
Oversize Wet (%)	0		
Oversize Dry (%)	0		
Field Moisture Content (%)	30.0		
Field Wet Density (t/m³)	1.76		
Field Dry Density (t/m³)	1.36		
Lab Result from Test No.	S25DS-02836		
Maximum Dry Density (t/m³)	1.53		
Optimum Moisture Content (%)	24.5		
Moisture Ratio (%)	123.5		
Moisture Variation	5.5 wet		
Density Ratio (%)	88.5		

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd	Address: PO Box 3131 AUBURN VIC 3123	Project: Riverfield Square Estate, Stage 26	Project No.: 1091938.026	CG Request No.: Lot No.: TRN:	Accredited for compliance with ISO/IEC 17025 – Testing   K. B. Patel
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-02870	S25DS-02871
Field Sample ID	1	2
Date Tested	15/04/2025	15/04/2025
Time Tested	10:30	11:00
E:	355250	355374
N:	5778393	5778383
EL:	18.659	16.970
Lot / Layer:	2607 / 5	2622 / 6
Retest of S25DS-02816		

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 Moisture Content (%)	25.1	16.6
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.91	1.93
Field Dry Density (t/m³)	1.52	1.65
Peak Converted Wet Density (t/m³)	1.97	2.03
Optimum Moisture Content (%)	22.5	17.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	111.0	96.5
Moisture Variation (%)	2.5 wet	0.5 dry
Hilf Density Ratio (%)	96.5	95.0

Comments

Results relate only to the items tested/sampled.

Dry Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 - Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
 Site Number: 12712 (Senior Geotechnician)
 Date of Issue: 27/04/2025
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Dry Density Ratio of 95%
Field Test Procedures: AS 1289.5.8.1
Laboratory Test Procedures: AS 1289.2.1.1, AS 1289.5.4.1
Sampling Method: AS 1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-02873		
Field Sample ID	1		
Date Tested	15/04/2025		
Time Tested	12:30		
E:	355185		
N:	5778411		
EL:	19.094		
Lot / Layer:	2602 / 6		

Field and Laboratory Data

Sample ID	S25DS-02873		
Depth of Test (mm)	175		
Depth of Layer (mm)	200		
Compactive Effort	Standard		
AS Sieve Size (mm)	19.0		
Oversize Wet (%)	0		
Oversize Dry (%)	0		
Field Moisture Content (%)	26.2		
Field Wet Density (t/m³)	1.87		
Field Dry Density (t/m³)	1.48		
Lab Result from Test No.	S25DS-02873		
Maximum Dry Density (t/m³)	1.61		
Optimum Moisture Content (%)	21.0		
Moisture Ratio (%)	124.0		
Moisture Variation	5.0 wet		
Density Ratio (%)	92.0		

Comments

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	<p>Accredited for compliance with ISO/IEC 17025 – Testing</p>    <p>Accreditation Number: 12719 Approved Signatory: J. Lamont Site Number: 12712 (Base Laboratory Manager - Date of Issue: 5/06/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-02906	S25DS-02907			
Field Sample ID	1	2			
Date Tested	16/04/2025	16/04/2025			
Time Tested	10:45	11:00			
E:	255184	355289			
N:	5778412	5778395			
EL:	-	18.650			
Lot / Layer:	-	2611 / -			
	Retest	Retest			

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 Moisture Content (%)	0.0	0.0			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m³)	1.89	1.90			
Peak Converted Wet Density (t/m³)	2.01	2.03			
Compactive Effort	Standard	Standard			
Moisture Variation (%)	3.5 wet	2.0 wet			
Hilf Density Ratio (%)	94.0	94.0			

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	<p>Accredited for compliance with ISO/IEC 17025 – Testing</p> <p> </p> <p>K. B. Patel</p> <p>Accreditation Number: 12719 Approved Signatory: Krushik Patel (Senior Geotechnician) Site Number: 12712 Date of Issue: 28/04/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-02919
Field Sample ID	1
Date Tested	16/04/2025
Time Tested	13:00
E:	355166
N:	5778375
EL:	19.910
Lot / Layer:	2644 / 6

Field and Laboratory Data

Depth of Test (mm)	175
Depth of Layer (mm)	200
AS Sieve Size (mm)	19.0
Oversize Wet (%)	0
Field Moisture Content (%)	17.9
Field Moisture Content Method	AS 1289.2.1.1
Field Wet Density (t/m³)	1.79
Field Dry Density (t/m³)	1.51
Peak Converted Wet Density (t/m³)	1.87
Optimum Moisture Content (%)	19.5
Compactive Effort	Standard
Moisture Ratio (%)	92.5
Moisture Variation (%)	1.5 dry
Hilf Density Ratio (%)	95.5

Comments

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd
Address:	PO Box 3131 AUBURN VIC 3123
Project:	Riverfield Square Estate, Stage 26
Project No.:	1091938.026
Order No.:	CG Request No.:
TRN:	Lot No.:

		Accredited for compliance with ISO/IEC 17025 - Testing
K. B. Patel		
Accreditation Number: 12719 Site Number: 12712 Date of Issue: 26/05/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL		

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-03030	S25DS-03031	S25DS-03032	S25DS-03033	S25DS-03034	S25DS-03035	S25DS-03036
Field Sample ID	1	2	3	4	5	6	7
Date Tested	17/04/2025	17/04/2025	17/04/2025	17/04/2025	17/04/2025	17/04/2025	17/04/2025
Time Tested	09:40	09:55	10:10	10:20	12:00	13:30	13:45
E:	355173	355213	355221	355243	355281	355260	355153
N:	5778408	5778406	5778361	5778350	5778400	5778396	5778389
EL:	19.503	19.246	19.232	19.238	18.963	19.2336	18.532
Lot / Layer:	2601 / 5	2604 / 5	2641 / 5	2639 / 5	2609 / 5	2608 / 6	Road Reserve / -

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0	0
Field Moisture Content (%)	19.9	17.1	26.3	17.8	23.5	19.7	17.2
Field Moisture Content Method	AS 1289.2.1.1						
Field Wet Density (t/m³)	1.81	1.97	1.89	2.01	1.86	1.96	2.05
Field Dry Density (t/m³)	1.51	1.68	1.50	1.71	1.51	1.64	1.75
Peak Converted Wet Density (t/m³)	1.91	2.07	1.95	2.08	2.04	2.09	2.04
Optimum Moisture Content (%)	22.0	17.0	26.5	18.0	20.5	19.5	17.5
Compactive Effort	Standard						
Moisture Ratio (%)	90.5	99.5	99.5	100.0	113.5	100.5	96.5
Moisture Variation (%)	2.0 dry	0.0	0.0	0.0	2.5 wet	0.0	0.5 dry
Hilf Density Ratio (%)	94.5	95.0	97.0	96.5	91.5	94.0	100.5

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd
Address:	PO Box 3131 AUBURN VIC 3123
Project:	Riverfield Square Estate, Stage 26
Project No.:	1091938.026
Order No.:	CG Request No.:
TRN:	Lot No.:

Accredited for compliance with ISO/IEC 17025 – Testing	
	
Accreditation Number: 12719	Approved Signatory: J. Lamont (Discipline Manager - CMT)
Site Number: 12712	Date of Issue: 1/05/2025
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL	

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	CLAY

Sample Data

Sample ID	S25DS-03115	S25DS-03116	S25DS-03117			
Field Sample ID	1	2	3			
Date Tested	28/04/2025	28/04/2025	28/04/2025			
Time Tested	10:00	11:45	12:00			
E:	355175	355278	355265			
N:	5778413	5778398	5778398			
EL:	19.479	18.902	19.012			
Lot / Layer	2601 / 5	2609 / 5	2608 / 5			
	Retest of S25DS-03030	Retest of S25DS-03034	Retest of S25DS-03035			

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 Moisture Content (%)	19.2	17.2	22.2			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m³)	1.90	2.04	1.95			
Field Dry Density (t/m³)	1.59	1.74	1.59			
Peak Converted Wet Density (t/m³)	1.94	1.97	1.98			
Optimum Moisture Content (%)	19.5	19.0	22.0			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	99.5	91.0	102.0			
Moisture Variation (%)	0.0	1.5 dry	0.5 wet			
HILF Density Ratio (%)	98.0	103.5	98.5			

Comments

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	<p>Accredited for compliance with ISO/IEC 17025 – Testing</p> <p> </p> <p>K. B. Patel</p> <p>Accreditation Number: 12719 Site Number: 12712 Date of Issue: 26/05/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Sandy Clay trace of Gravel

Sample Data

Sample ID	S25DS-03154	S25DS-03155	
Field Sample ID	1	2	
Date Tested	29/04/2025	29/04/2025	
Time Tested	11:40	14:50	
E:	- (5193.396)	355267 (52266.365)	
N:	- (78398.387)	5778394 (78386.254)	
EL:	19.523	19.163	
Lot / Layer:	2603 / -	2608 / -	

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	3	
Field Moisture Content (%)	16.6	21.0	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.91	1.94	
Field Dry Density (t/m³)	1.64	1.60	
Peak Converted Wet Density (t/m³)	1.93	1.95	
Optimum Moisture Content (%)	19.0	24.0	
Compactive Effort	Standard	Standard	
Moisture Ratio (%)	86.5	87.5	
Moisture Variation (%)	2.5 dry	2.5 dry	
Hilf Density Ratio (%)	99.0	99.0	

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 - Testing



 Accreditation Number: 12719 Approved Signatory: Krushik Patel
 Site Number: 12712 (Senior Geotechnician)
 Date of Issue: 26/05/2025
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Import
Material: Clay

Sample Data

Sample ID	S25DS-03174	
Field Sample ID	1	
Date Tested	30/04/2025	
Time Tested	12:00	
E:	355289	
N:	5778395	
EL:	18.650	
Lot / Layer:	2611 / 5	
	Retest of S25DS-02907	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	18.4	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.92	
Field Dry Density (t/m³)	1.62	
Peak Converted Wet Density (t/m³)	1.96	
Optimum Moisture Content (%)	18.5	
Compactive Effort	Standard	
Moisture Ratio (%)	100.5	
Moisture Variation (%)	0.0	
Hilf Density Ratio (%)	98.0	

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	<p>Accredited for compliance with ISO/IEC 17025 – Testing</p> <p> </p> <p>K. B. Patel</p> <p>Accreditation Number: 12719 Site Number: 12712 Date of Issue: 26/05/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	CLAY

Sample Data

Sample ID	S25DS-03201	S25DS-03202
Field Sample ID	1	2
Date Tested	1/05/2025	1/05/2025
Time Tested	11:30	12:00
E:	355288	355326
N:	5778350	5778350
EL:	17.996	17.734
Lot / Layer:	2636 / 1	2633 / 1

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 Moisture Content (%)	18.5	17.9
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.04	2.05
Field Dry Density (t/m³)	1.72	1.74
Peak Converted Wet Density (t/m³)	2.09	2.08
Optimum Moisture Content (%)	18.0	18.0
Compactive Effort	Standard	Standard
Moisture Ratio (%)	102.0	100.0
Moisture Variation (%)	0.5 wet	0.0
Hilf Density Ratio (%)	97.5	98.5

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:

Accredited for compliance with ISO/IEC 17025
 – Testing
 
 Krushik Patel
 Accreditation Number: 12719
 Approved Signatory: Krushik Patel
 (Senior Geotechnician)
 Site Number: 12712 Date of Issue: 26/05/2025
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-03249	
Field Sample ID	1	
Date Tested	2/05/2025	
Time Tested	14:00	
E:	355369	
N:	5778327	
EL:	17.297	
Lot / Layer:	2630 / 1	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	15.9	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.96	
Field Dry Density (t/m³)	1.69	
Peak Converted Wet Density (t/m³)	2.04	
Optimum Moisture Content (%)	17.5	
Compactive Effort	Standard	
Moisture Ratio (%)	91.5	
Moisture Variation (%)	1.5 dry	
Hilf Density Ratio (%)	96.0	

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	<p>Accredited for compliance with ISO/IEC 17025 – Testing</p> <p> </p> <p>K. B. Patel</p> <p>Accreditation Number: 12719 Site Number: 12712 Date of Issue: 26/05/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-03304	S25DS-03305	S25DS-03306	S25DS-03307
Field Sample ID	1	2	3	4
Date Tested	5/05/2025	5/05/2025	5/05/2025	5/05/2025
Time Tested	11:15	12:45	13:15	14:45
E:	355354	355343	355396	355397
N:	5778339	5778416	5778329	5778380
EL:	17.622	17.993	17.430	17.407
Lot / Layer:	2631 / 2	2616 / 1	2627 / 2	2623 / 1

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 Moisture Content (%)	18.0	21.4	28.3	21.0
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.90	1.95	1.93	1.99
Field Dry Density (t/m³)	1.61	1.61	1.51	1.65
Peak Converted Wet Density (t/m³)	2.03	2.05	1.83	2.03
Optimum Moisture Content (%)	19.0	19.5	29.5	20.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	94.5	110.0	96.0	102.5
Moisture Variation (%)	1.0 dry	2.0 wet	1.0 dry	0.5 wet
Hilf Density Ratio (%)	93.5	95.5	105.5	98.0

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd	  Accredited for compliance with ISO/IEC 17025 - Testing
Address:	PO Box 3131 AUBURN VIC 3123	
Project:	Riverfield Square Estate, Stage 26	
Project No.:	1091938.026	
Order No.:	CG Request No.:	
TRN:	Lot No.:	

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Import
Material:	Clay

Sample Data

Sample ID	S25DS-03370	S25DS-03371	S25DS-03372
Field Sample ID	1	2	3
Date Tested	6/05/2025	6/05/2025	6/05/2025
Time Tested	13:30	14:30	15:15
E:	355314	355336	355367
N:	5778344	5778340	5778382
EL:	18.446	17.987	17.738
Lot / Layer:	2634 / 5	2631 / -	2621 / 3
Retest of S25DS-03304			

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 Moisture Content (%)	17.1	19.8	21.3
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.00	1.97	2.00
Field Dry Density (t/m³)	1.71	1.65	1.65
Peak Converted Wet Density (t/m³)	1.99	1.96	2.05
Optimum Moisture Content (%)	17.5	20.5	18.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	98.5	96.0	116.5
Moisture Variation (%)	0.5 dry	1.0 dry	3.0 wet
Hilf Density Ratio (%)	100.5	100.5	97.5

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	<p>Accredited for compliance with ISO/IEC 17025 – Testing</p>    <p>Accreditation Number: 12719 Approved Signatory: J. Lamont Site Number: 12712 (Base Laboratory Manager - Date of Issue: 5/06/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Import
Material:	Clay

Sample Data

Sample ID	S25DS-03407	S25DS-03408	S25DS-03409	S25DS-03410
Field Sample ID	1	2	3	4
Date Tested	7/05/2025	7/05/2025	7/05/2025	7/05/2025
Time Tested	10:30	11:30	12:30	15:40
E:	355343	355274	355337	355380
N:	5778402	5778354	5778346	5778341
EL:	18.078	18.802	18.470	18.126
Lot / Layer:	2617 / 3	2637 / 6	2632 / 6	2629 / 4

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	5
Field Moisture Content (%)	20.3	15.1	20.5	21.5
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.96	1.96	1.93	1.97
Field Dry Density (t/m³)	1.63	1.70	1.60	1.62
Peak Converted Wet Density (t/m³)	1.96	2.03	1.94	1.99
Optimum Moisture Content (%)	22.5	16.0	20.5	21.5
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	91.5	94.0	99.0	99.5
Moisture Variation (%)	2.0 dry	1.0 dry	0.0	0.0
Hilf Density Ratio (%)	100.0	96.5	99.5	99.0

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	<p>Accredited for compliance with ISO/IEC 17025 – Testing</p> <p> </p> <p>K. B. Patel</p> <p>Accreditation Number: 12719 Approved Signatory: Krushik Patel (Senior Geotechnician) Site Number: 12712 Date of Issue: 26/05/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Import
Material:	Clay

Sample Data

Sample ID	S25DS-03460	S25DS-03461	
Field Sample ID	1	2	
Date Tested	8/05/2025	8/05/2025	
Time Tested	09:30	13:30	
E:	355381 (5382.149)	355406 (5406.771)	
N:	5778392 (78385.714)	5778358 (78351.797)	
EL:	18.001	17.616	
Lot / Layer:	2622 / 4	Road Reserve / -	

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 Moisture Content (%)	25.1	20.3	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.95	1.97	
Field Dry Density (t/m³)	1.56	1.64	
Peak Converted Wet Density (t/m³)	1.97	2.03	
Optimum Moisture Content (%)	23.0	18.5	
Compactive Effort	Standard	Standard	
Moisture Ratio (%)	109.0	108.5	
Moisture Variation (%)	2.0 wet	1.5 wet	
Hilf Density Ratio (%)	99.0	97.5	

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

Client:	Greenridge Properties Pty Ltd
Address:	PO Box 3131 AUBURN VIC 3123
Project:	Riverfield Square Estate, Stage 26
Project No.:	1091938.026
Order No.:	CG Request No.:
TRN:	Lot No.:

		Accredited for compliance with ISO/IEC 17025 - Testing
		K. B. Patel
Accreditation Number: 12719 Approved Signatory: Krushik Patel Site Number: 12712 (Senior Geotechnician) Date of Issue: 26/05/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL		

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-03529	S25DS-03530	S25DS-03531	S25DS-03532	S25DS-03533	S25DS-03534	S25DS-03535
Field Sample ID	1	2	3	4	5	6	7
Date Tested	9/05/2025	9/05/2025	9/05/2025	9/05/2025	9/05/2025	9/05/2025	9/05/2025
Time Tested	07:15	07:30	07:45	08:00	08:30	11:00	12:30
E:	355328 (5329.079)	355394 (5396.981)	355394 (5392.293)	355296 (5295.976)	355184 (5184.327)	355321 (5321.186)	355326 (5329.254)
N:	78380.271 (5778386)	5778343 (78388.358)	5778377 (78368.253)	5778353 (78347.111)	5778416 (78409.869)	5778423 (78418.500)	5778393 (78389.612)
EL:	18.033	18.199	18.034	18.945	19.116	17.482	18.275
Lot / Layer:	2619 / 4	2628 / 7	2623 / 4	2636 / 7	2609 / -	Road Reserve / -	2618 / 5
					Retest of S25DS-02906		

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0	0
Field Moisture Content (%)	22.5	21.5	17.7	22.9	23.8	13.7	12.2
Field Moisture Content Method	AS 1289.2.1.1						
Field Wet Density (t/m³)	1.97	1.99	1.96	1.89	1.90	1.95	2.00
Field Dry Density (t/m³)	1.61	1.64	1.67	1.54	1.53	1.72	1.78
Peak Converted Wet Density (t/m³)	2.04	2.01	1.97	1.86	1.87	2.02	2.01
Optimum Moisture Content (%)	22.5	21.0	19.5	26.0	26.5	16.0	14.0
Compactive Effort	Standard						
Moisture Ratio (%)	99.5	101.5	90.5	89.0	89.5	85.5	88.0
Moisture Variation (%)	0.0	0.5 wet	2.0 dry	2.5 dry	2.5 dry	2.5 dry	1.5 dry
Hilf Density Ratio (%)	96.5	99.0	100.0	101.5	101.0	96.5	99.0

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	  <p>Accredited for compliance with ISO/IEC 17025 – Testing</p> <p>K. B. Patel</p> <p>Accreditation Number: 12719 Site Number: 12712 Date of Issue: 26/05/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-03578	S25DS-03579	
Field Sample ID	1	2	
Date Tested	12/05/2025	12/05/2025	
Time Tested	15:30	15:45	
E:	355340 (5339.715)	355392 (5392.157)	
N:	5778403 (78401.152)	5778383 (78377.945)	
EL:	18.870	18.362	
Lot / Layer:	2617 / 6	2623 / 6	

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 Moisture Content (%)	21.6	17.0	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.94	1.94	
Field Dry Density (t/m³)	1.59	1.66	
Peak Converted Wet Density (t/m³)	1.96	2.01	
Optimum Moisture Content (%)	21.0	17.0	
Compactive Effort	Standard	Standard	
Moisture Ratio (%)	103.5	99.0	
Moisture Variation (%)	0.5 wet	0.0	
Hilf Density Ratio (%)	98.5	96.5	

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

<p>Client: Greenridge Properties Pty Ltd Address: PO Box 3131 AUBURN VIC 3123 Project: Riverfield Square Estate, Stage 26 Project No.: 1091938.026 Order No.: CG Request No.: TRN: Lot No.:</p>	<p>Accredited for compliance with ISO/IEC 17025 – Testing</p>    <p>Accreditation Number: 12719 Approved Signatory: J. Lamont Site Number: 12712 Date of Issue: 6/06/2025 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL</p>
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Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum HILF Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-04188				
Field Sample ID	1				
Date Tested	26/05/2025				
Time Tested	15:40				
E:	355209 (5209.906)				
N:	5778353 (78349.393)				
EL:	19.250				
Lot / Layer:	2642 / Final				

Field and Laboratory Data

Depth of Test (mm)	175				
Depth of Layer (mm)	200				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Moisture Content (%)	18.2				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m³)	1.86				
Field Dry Density (t/m³)	1.57				
Peak Converted Wet Density (t/m³)	1.93				
Optimum Moisture Content (%)	20.5				
Compactive Effort	Standard				
Moisture Ratio (%)	88.0				
Moisture Variation (%)	2.5 dry				
Hilf Density Ratio (%)	96.0				

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026

Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
 Site Number: 12712 (Senior Geotechnician)
 Date of Issue: 5/06/2025
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Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: CLAY

Sample Data

Sample ID	S25DS-04370	
Field Sample ID	1	
Date Tested	29/05/2025	
Time Tested	13:00	
E:	355223	
N:	5778392	
EL:	-	
Lot / Layer:	2605 / Final Layer	

Field and Laboratory Data

Depth of Test (mm)	175	
Depth of Layer (mm)	200	
AS Sieve Size (mm)	19.0	
Oversize Wet (%)	0	
Field Moisture Content (%)	19.0	
Field Moisture Content Method	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.01	
Field Dry Density (t/m³)	1.69	
Peak Converted Wet Density (t/m³)	1.98	
Optimum Moisture Content (%)	19.0	
Compactive Effort	Standard	
Moisture Ratio (%)	100.0	
Moisture Variation (%)	0.0	
Hilf Density Ratio (%)	101.5	

Comments

Results relate only to the items tested/sampled.

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026

Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
 (Senior Geotechnician)
 Site Number: 12712 Date of Issue: 27/09/2024

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Sample Details

Sample Location E: 355333, N: 5778428, 18.272, Lot: 2615, Layer: -
Field Sample ID 1
Date Sampled 29/08/2024
Time Sampled 14:15
Source Onsite
Material Clay
Specification AS Grading
Sampling Method AS1289.1.2.1 Clause 6.4 (b)
Sample ID S24DS-06038

Particle Size Distribution

Method: AS 1289.3.6.1
Drying By: Oven
Date Tested: 5/09/2024

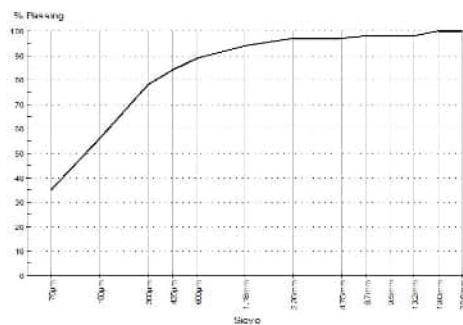
Note: Sample Washed

Sieve Size	% Passing	Limits
26.5mm	100	
19.0mm	100	
13.2mm	98	
9.5mm	98	
6.7mm	98	
4.75mm	97	
2.36mm	97	
1.18mm	94	
600µm	89	
425µm	84	
300µm	78	
150µm	56	
75µm	35	

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	13.8	
Date Tested		3/09/2024	
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	6.0	
Mould Length (mm)		250	
Crumbling		No	
Curling		No	
Cracking		No	
Liquid Limit (%)	AS 1289.3.1.2	27	
Plastic Limit (%)	AS 1289.3.2.1	13	
Plasticity Index (%)	AS 1289.3.3.1	14	
Date Tested		11/09/2024	

Chart



Comments

N/A

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026

Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
 (Senior Geotechnician)
 Site Number: 12712 Date of Issue: 26/05/2025
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Sample Details

Location Clyde
Sample Location E: 355250, N: 5778392, EL: 18.662, Lot: 2607, Layer: 5
Field Sample ID 1
Date Sampled 14/04/2025
Time Sampled 15:00
Source Imported
Material Clay
Specification AS Grading
Sampling Method AS1289.1.2.1 Clause 6.4 (b)
Sample ID S25DS-02818

Particle Size Distribution

Method: AS 1289.3.6.1
Drying By: Oven
Date Tested: 29/04/2025

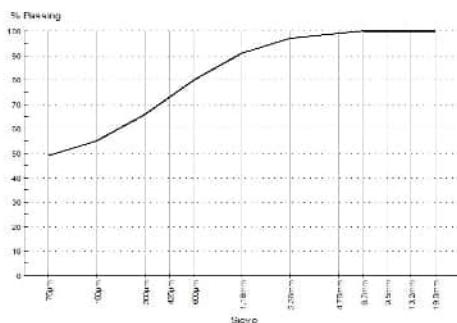
Note: Sample Washed

Sieve Size	% Passing	Limits
19.0mm	100	
13.2mm	100	
9.5mm	100	
6.7mm	100	
4.75mm	99	
2.36mm	97	
1.18mm	91	
600µm	80	
425µm	73	
300µm	66	
150µm	55	
75µm	49	

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	25.5	
Date Tested		28/04/2025	
Sample History	AS 1289.1.1	Oven-Dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	7.0	
Mould Length (mm)		250	
Crumbling		No	
Curling		No	
Cracking		Yes	
Liquid Limit (%)	AS 1289.3.1.2	46	
Plastic Limit (%)	AS 1289.3.2.1	23	
Plasticity Index (%)	AS 1289.3.3.1	23	
Date Tested		1/05/2025	

Chart



Comments

Results relate only to the items tested/sampled.

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 26
Project No.: 1091938.026
Order No.: CG Request No.:
TRN: Lot No.:



Accredited for compliance with ISO/IEC 17025
- Testing

K. B. Patel

Accreditation Number: 12719 Approved Signatory: Krushik Patel
 (Senior Geotechnician)
 Site Number: 12712 Date of Issue: 26/05/2025
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Sample Details

Location Clyde
Sample Location E: 355367, N: 5778382, EL: 17.738, Lot: 2621 / Layer: 3
Field Sample ID 1
Date Sampled 6/05/2025
Time Sampled 15:15
Source Import
Material Clay
Specification AS Grading
Sampling Method AS1289.1.2.1 Clause 6.4 (b)
Sample ID S25DS-03373

Particle Size Distribution

Method: AS 1289.3.6.1
Drying By: Oven
Date Tested: 8/05/2025

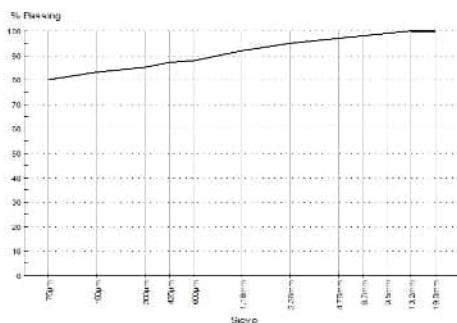
Note: Sample Washed

Sieve Size	% Passing	Limits
19.0mm	100	
13.2mm	100	
9.5mm	99	
6.7mm	98	
4.75mm	97	
2.36mm	95	
1.18mm	92	
600µm	88	
425µm	87	
300µm	85	
150µm	83	
75µm	80	

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	19.3	
Date Tested		7/05/2025	
Sample History	AS 1289.1.1	Oven-Dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	7.5	
Mould Length (mm)		250	
Crumbling		No	
Curling		No	
Cracking		Yes	
Liquid Limit (%)	AS 1289.3.1.2	35	
Plastic Limit (%)	AS 1289.3.2.1	17	
Plasticity Index (%)	AS 1289.3.3.1	18	
Date Tested		9/05/2025	

Chart



Comments

Results relate only to the items tested/sampled.

Appendix D Controlled Fill Certificate



CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Riverfield Square Estate Stage 26 Lots 2601 to 2646	Chadwick Geotechnics REF: 1091938.026.R1.v1
CLIENT	: Greenridge Properties Pty Ltd P.O Box 4136 Dandenong South Victoria, 3164	DATE: 10 June 2025

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 can 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 (19 February 2025 and was completed on 29 May 2025). 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 'Michael DiMeglio'.

Robert Barden
Project Manager

Michael DiMeglio
Project Director

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