



REPORT

Level 1 Geotechnical Testing and Inspection Authority Services

**Meridian Green Estate Clyde North
Stage 48**

Lots 4801, 4802, 4809 to 4817, 4823 to 4844

Prepared for:

Greenridge Properties Pty Ltd

27 May 2024

Our Ref: 1091936.048.v1

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Document Control

Title: Level One Inspection and testing Services.					
Date	Version	Description	Prepared by:	Reviewed by:	Authorised by
27 May 2024	1091936.048.V1	Meridian Green Estate Stage 48 Level One Report	STPA and RHB	RWMC	TJJC

1 Introduction

Chadwick Geotechnics Pty Ltd (Chadwick Geotechnics), was engaged by Greenridge Properties Pty Ltd (Greenridge), to provide Level 1 Geotechnical Inspection and Testing Authority (GITA) services for the earthworks conducted within Stage 48 of the Meridian Green Estate in Clyde North between project dates 10 August 2023 and 17 May 2024.

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 48 is located to the South of Clara Street and West of Koala Circuit. Stage 47 and 49 are within the same development area.

The included works are shown on the Site Plan in **Appendices A**. Figure 2.1 below is an extract from Nearmap taken at the time of writing this report.

Figure 2.1: 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	Charlton Degg 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 2023	10, 11, 14,15, 16
February 2024	15,
April 2024	17, 18, 22, 23, 29, 30
May 2024	1, 2, 6, 7, 8, 9, 14, 15, 16, 17

2.4 Included Areas

This report is applicable to material placed by the contractor on the residential lots within Meridian Green Estate Stage 48, as shown on the Site Plan in **Appendix A**, and 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:

- Lots and 4801, 4802, 4809 to 4817 and 4823 to Lot 4844.

2.5 Excluded Areas

This report does not include fill outside the general boundary of the filled areas as shown in **Appendix A** of this report. 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

Project specifications were prepared by Charlton Degg Land Development Consultants Pty Ltd for the project. 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).
- Frequency of testing to be in accordance with Table 8.1 of AS3798-2007.
- Finished fill surface to be surveyed prior to placement of topsoil.

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.
- Scarifying, moisture conditioning and compacting the Subgrade.
- Assessment, remediation, and proof rolling of subgrade.
- Geotechnical compliance testing of the soils used for fill, and,
- Placement and compaction of engineered fill.

4.2 Fill material

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

A sample taken from the site comprising of local material used for fill was taken for geotechnical compliance testing during the works. The material compliance test results are summarised in **Table 4.1** The laboratory test certificate is attached in **Appendix C**.

Table 4.1: Compliance test Result Summary

Sample #	Particle Size Distribution (PSD)						Liquid Limit %	Plastic Limit %	Plasticity Index %	Source
	37.5 mm	13.2 mm	4.75 mm	1.18 mm	425 µm	0.75 µm				
S23DS-06675	100	99	98	94	86	74	47	17	30	On-site
S24DS-02396	100	100	98	93	87	73	79	25	54	On-site

The laboratory test results indicate the fill material is clay of high 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 fill material was not tested for classification of 'Fill Material' as defined in EPA Publication IWRG621. Environmental testing is 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: Typical on-site clay material



Photograph 2: Silty Brown Clay

4.3 Subgrade Assessment

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 the topsoil and the wet soils that were present on site.

The subgrade inspections were 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: Proof Roll with Dump Truck



Photograph 4: Subgrade assessment with 15 Tonne Pad foot Roller

4.4 Engineered Fill Construction

All fill material was brought by tandem trucks or from local or imported sources. The fill was 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 Dozer
Pad foot roller	CAT 15 Tonne CP56B
Water cart	1
Scraper	1
Dump trucks	Tandem
Excavator	1

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

Photograph 4.3: General Earthwork machinery and fill construction photographs*Photograph 5: D6 Dozer used during filling.**Photograph 6: Scraper moving clay*



Photograph 7: Water cart used for moisture conditioning



Photograph 8: Pad foot compacting fill material

4.5 Density and Moisture testing

Field density and moisture content testing was undertaken progressively during 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;

Sixty-eight (68) tests were performed during the filling process. Four (4) of the tests did not achieve the recommended 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.

After earthwork construction works 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 from 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 10 August 2023 and 17 May 2024. 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:

Authorised for Chadwick Geotechnics Pty Ltd by:



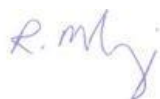

Robert Barden

Timothy Chadwick

Project Manager

Project Director

Report reviewed by:



Robert McKenzie



Principal Geotechnical Engineer

RPEV Number : PE0005222

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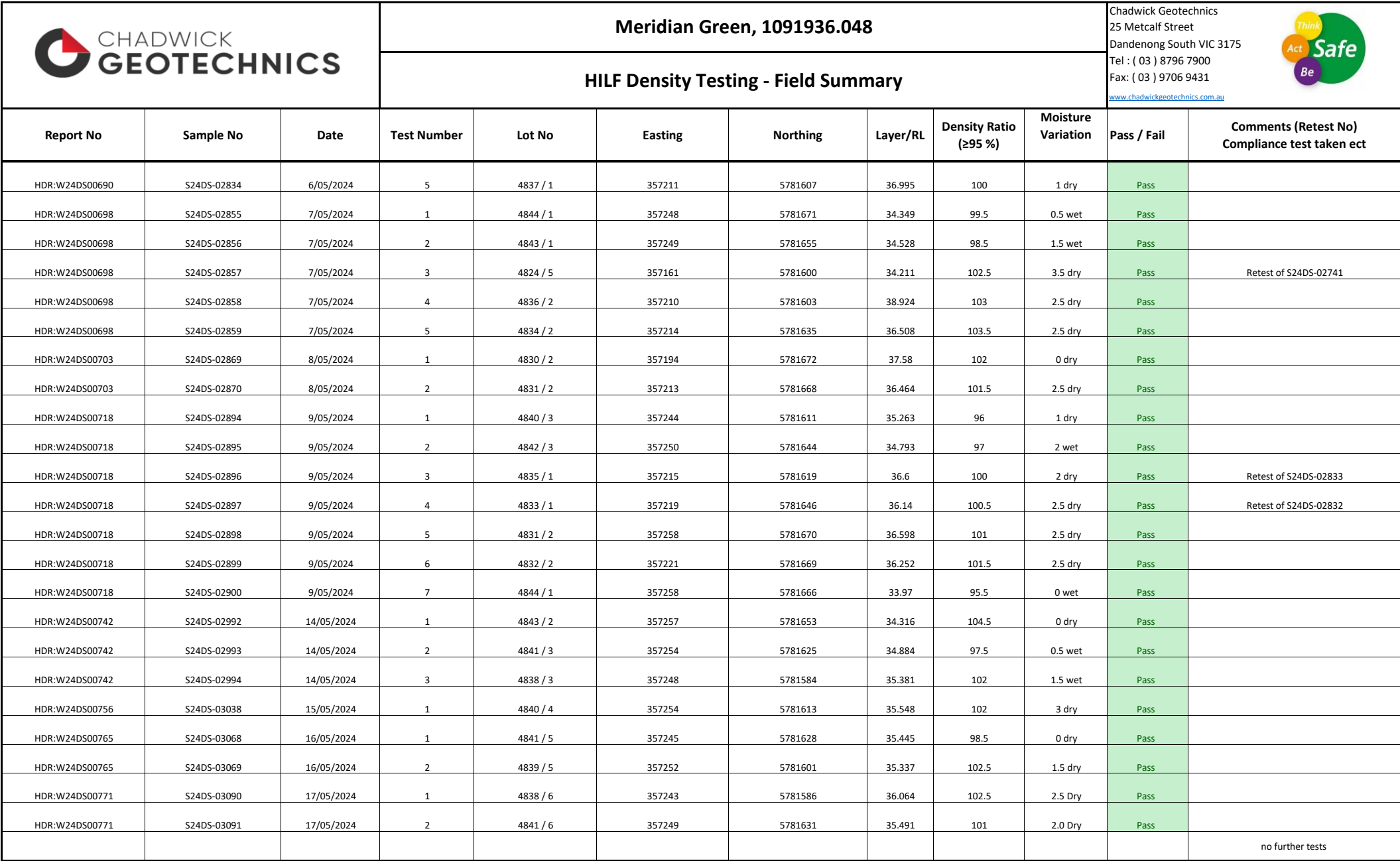
Appendix A Test Location Plan

Appendix B Hilf Density Test Summary

<div>CHADWICK GEOTECHNICS</div>			Meridian Green, 1091936.048							<div>Chadwick Geotechnics 25 Metcalf Street Dandenong South VIC 3175 Tel : (03) 8796 7900 Fax: (03) 9706 9431 www.chadwickgeotechnics.com.au</div> <div></div>	
			HILF 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:W23DS01924	S23DS-06628	10/08/2023	1	4844 / 1	357266	5781652	33.648	100	0.5 wet	Pass	
HDR:W23DS01924	S23DS-06629	10/08/2023	2	4844 / 2	357265	5781669	33.701	108.5	0 dry	Pass	See Retest S23DS06674
HDR:W23DS01938	S23DS-06672	11/08/2023	1	4839 / 2	357254	5781586	34.871	99.5	0 wet	Pass	
HDR:W23DS01938	S23DS-06673	11/08/2023	2	4842 / 3	357259	5781625	34.579	97	0.5 dry	Pass	
HDR:W23DS01938	S23DS-06674	11/08/2023	3	4844 / 2	357263	5781672	33.701	100	0 wet	Pass	Retest of S23DS-06629
HDR:W23DS01950	S23DS-06747	14/08/2023	1	4841 / 4	357259	5781612	35.006	99	0 dry	Pass	
HDR:W23DS01965	S23DS-06778	15/08/2023	1	4843 / 5	357264	5781640	34.86	96.5	0 wet	Pass	
HDR:W23DS01982	S23DS-06831	16/08/2023	1	4840 / 5	357259	5781602	35.604	98.5	0.5 wet	Pass	
HDR:W24DS00205	S24DS-00774	15/02/2024	1	4801	357063	5781687	42.251	102	2.5 dry	Pass	
HDR:W24DS00205	S24DS-00775	15/02/2024	2	4802	357061	5781690	42.155	103.5	2.5 dry	Pass	
HDR:W24DS00584	S24DS-02391	17/04/2024	1	4816	357119	5781682	40.39	102.5	3 dry	Pass	
HDR:W24DS00584	S24DS-02392	17/04/2024	2	4814	357095	5781692	41.41	106	2.5 dry	Pass	
HDR:W24DS00584	S24DS-02393	17/04/2024	3	4811	357082	5781640	41.35	106.5	2.5 dry	Pass	
HDR:W24DS00584	S24DS-02394	17/04/2024	4	4810	357081	5781630	41.35	104	2.5 dry	Pass	
HDR:W24DS00584	S24DS-02395	17/04/2024	5	4809	357080	5781613	41.41	103	2 dry	Pass	
HDR:W24DS00593	S24DS-02424	18/04/2024	1	4812 / 2	357097	5781644	41.288	105	2.5 dry	Pass	
HDR:W24DS00593	S24DS-02425	18/04/2024	2	4811 / 2	357094	5781632	41.38	98.5	2.5 dry	Pass	
HDR:W24DS00593	S24DS-02426	18/04/2024	3	4810 / 2	357095	5781618	41.42	103	2 dry	Pass	
HDR:W24DS00609	S24DS-02487	22/04/2024	1	4812 / 2	357088	5781650	41.271	104	1 dry	Pass	
HDR:W24DS00609	S24DS-02488	22/04/2024	2	4813 / 2	357089	5781665	41.206	103	2 dry	Pass	
HDR:W24DS00609	S24DS-02489	22/04/2024	3	4813 / 2	357109	5781661	41.17	102	2 dry	Pass	
HDR:W24DS00609	S24DS-02490	22/04/2024	4	4814 / 2	357093	5761677	41.348	102.5	2 dry	Pass	

HILF 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:W24DS00609	S24DS-02491	22/04/2024	5	4815 / 1	357105	5781689	40.781	102	2.5 dry	Pass	
HDR:W24DS00609	S24DS-02492	22/04/2024	6	4815 / 2	357100	5781673	41.155	98.5	3 dry	Pass	
HDR:W24DS00609	S24DS-02493	22/04/2024	7	4817 / 1	357135	5781684	39.72	101	2.5 dry	Pass	
HDR:W24DS00609	S24DS-02494	22/04/2024	8	4817 / 2	357134	5781682	39.893	101	2.5 dry	Pass	
HDR:W24DS00618	S24DS-02536	23/04/2024	1	4829 / 1	357180	5781675	38	106	2.5 dry	Pass	
HDR:W24DS00618	S24DS-02537	23/04/2024	2	4830 / 1	357192	5781674	37.408	105	3 dry	Pass	
HDR:W24DS00618	S24DS-02538	23/04/2024	3	4832 / 1	357217	5781671	36.257	100.5	3 dry	Pass	
HDR:W24DS00618	S24DS-02539	23/04/2024	4	4817 / 3	357131	5781675	40.252	99.5	2.5 dry	Pass	
HDR:W24DS00618	S24DS-02540	23/04/2024	5	4816 / 2	357119	5781684	40.426	107	3 dry	Pass	
HDR:W24DS00643	S24DS-02632	29/04/2024	1	4826 / 1	357180	5781626	38.203	104.5	2.5 dry	Pass	
HDR:W24DS00643	S24DS-02633	29/04/2024	2	4824 / 1	352177	5781605	38.523	102.5	1 dry	Pass	
HDR:W24DS00643	S24DS-02634	29/04/2024	3	4825 / 2	357184	5781615	38.231	101.5	2 dry	Pass	
HDR:W24DS00648	S24DS-02653	30/04/2024	1	4823 / 3	357169	5781590	38.772	103	2.5 dry	Pass	
HDR:W24DS00648	S24DS-02654	30/04/2024	2	4827 / 3	357176	5781647	38.3824	100.5	2.5 dry	Pass	
HDR:W24DS00648	S24DS-02655	30/04/2024	3	4828 / 4	357176	5781654	38.414	101.5	1 dry	Pass	
HDR:W24DS00659	S24DS-02720	1/05/2024	1	4823 / 4	357159	5781593	39.164	100.5	2 dry	Pass	
HDR:W24DS00668	S24DS-02741	2/05/2024	1	4824 / 5	357161	5781600	39.211	107.5	3 dry	Pass	See Retest S24DS-2857
HDR:W24DS00668	S24DS-02742	2/05/2024	2	4826 / 5	357164	5781626	38.982	101.5	2.5 dry	Pass	
HDR:W24DS00668	S24DS-02743	2/05/2024	3	4828 / 5	357188	5781650	38.479	102.5	2.5 dry	Pass	
HDR:W24DS00690	S24DS-02830	6/05/2024	1	4839 / 1	357242	5781597	35.397	98	1 dry	Pass	
HDR:W24DS00690	S24DS-02831	6/05/2024	2	4842 / 1	357243	5781645	34.939	95.5	0.5 wet	Pass	
HDR:W24DS00690	S24DS-02832	6/05/2024	3	4833 / 1	357219	5781646	36.194	108.5	1.5 dry	Pass	See Retest S24DS-2897
HDR:W24DS00690	S24DS-02833	6/05/2024	4	4835 / 1	357215	5781619	36.584	107	0.5 dry	Pass	See Retest S24DS-02896



Appendix C NATA endorsed laboratory reports

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

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



Accredited for compliance with ISO/IEC 17025
– Testing



Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712 Date of Issue: 23/08/2023

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: Silty Clay

Sample Data

Sample ID	S23DS-06628	S23DS-06629			
Field Sample ID	1	2			
Client Sample ID	1	2			
Date Tested	10/08/2023	10/08/2023			
Time Tested	11:45	13:45			
E:	357265.961	357265.260			
N:	5781651.884	5781668.509			
EL:	33.648	33.701			
Lot / Layer:	4844 / 1	4845 / 2			

Field and Laboratory Data

Depth of Test (mm)	225	225			
Depth of Layer (mm)	250	250			
AS Sieve Size (mm)	19.0	19.0			
Oversize Wet (%)	0	0			
Field Moisture Content (%)	21.9	20.3			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	1.95	2.13			
Field Dry Density (t/m ³)	1.60	1.77			
Peak Converted Wet Density (t/m ³)	1.96	1.97			
Optimum Moisture Content (%)	21.5	20.5			
Compactive Effort	Standard	Standard			
Moisture Ratio (%)	102.0	100.0			
Moisture Variation (%)	0.5 wet	0.0			
Hilf Density Ratio (%)	100.0	108.5			

Comments



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

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

Report No: HDR:W23DS01938

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 22/05/2024

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: Silty Clay

Sample Data

Sample ID	S23DS-06672	S23DS-06673	S23DS-06674			
Field Sample ID	1	2	3			
Client Sample ID	3	4	5			
Date Tested	11/08/2023	11/08/2023	11/08/2023			
Time Tested	08:55	12:32	13:03			
E:	357253.607	3572578.588	357263			
N:	5781586.073	5781624.979	5781672			
EL:	34.871	34.579	-			
Lot / Layer:	4839 / 2	4842 / 3	4845 / 2			
			Retest of S23DS-06629			

Field and Laboratory Data

Depth of Test (mm)	225	225	225			
Depth of Layer (mm)	250	250	250			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Moisture Content (%)	20.5	21.1	20.6			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	2.01	1.85	1.96			
Field Dry Density (t/m ³)	1.66	1.53	1.62			
Peak Converted Wet Density (t/m ³)	2.02	1.92	1.96			
Optimum Moisture Content (%)	20.5	21.5	20.5			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	100.5	98.5	100.5			
Moisture Variation (%)	0.0	0.5 dry	0.0			
Hilf Density Ratio (%)	99.5	97.0	100.0			

Comments



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

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

Report No: HDR:W23DS01950

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 23/08/2023
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: Silty/Sandy Clay

Sample Data

Sample ID	S23DS-06747				
Field Sample ID	1				
Client Sample ID	6				
Date Tested	14/08/2023				
Time Tested	14:12				
E:	357259.461				
N:	5781611.659				
EL:	35.006				
Lot / Layer:	4841 / 4				

Field and Laboratory Data

Depth of Test (mm)	225				
Depth of Layer (mm)	250				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Moisture Content (%)	23.6				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.97				
Field Dry Density (t/m ³)	1.59				
Peak Converted Wet Density (t/m ³)	1.99				
Optimum Moisture Content (%)	23.5				
Compactive Effort	Standard				
Moisture Ratio (%)	99.5				
Moisture Variation (%)	0.0				
Hilf Density Ratio (%)	99.0				

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

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



Accredited for compliance with ISO/IEC 17025
– Testing



Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712 Date of Issue: 23/08/2023

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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: Silty Clay

Sample Data

Sample ID	S23DS-06778				
Field Sample ID	1				
Client Sample ID	7				
Date Tested	15/08/2023				
Time Tested	11:58				
E:	357264.374				
N:	5781639.711				
EL:	34.860				
Lot / Layer:	4843 / 5				

Field and Laboratory Data

Depth of Test (mm)	225				
Depth of Layer (mm)	250				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Moisture Content (%)	20.6				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.86				
Field Dry Density (t/m ³)	1.54				
Peak Converted Wet Density (t/m ³)	1.92				
Optimum Moisture Content (%)	20.5				
Compactive Effort	Standard				
Moisture Ratio (%)	100.0				
Moisture Variation (%)	0.0				
Hilf Density Ratio (%)	96.5				

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

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



Accredited for compliance with ISO/IEC 17025
– Testing



Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712 Date of Issue: 23/08/2023

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: Silty Clay

Sample Data

Sample ID	S23DS-06831				
Field Sample ID	1				
Client Sample ID	7				
Date Tested	16/08/2023				
Time Tested	10:33				
E:	357258.537				
N:	5781602.383				
EL:	35.604				
Lot / Layer:	4840 / 5				

Field and Laboratory Data

Depth of Test (mm)	225				
Depth of Layer (mm)	250				
AS Sieve Size (mm)	19.0				
Oversize Wet (%)	0				
Field Moisture Content (%)	21.2				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.97				
Field Dry Density (t/m ³)	1.62				
Peak Converted Wet Density (t/m ³)	2.00				
Optimum Moisture Content (%)	20.5				
Compactive Effort	Standard				
Moisture Ratio (%)	102.5				
Moisture Variation (%)	0.5 wet				
Hilf Density Ratio (%)	98.5				

Comments



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Report No: HDR:W24DS00205

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 19/02/2024

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Sample Details

Location:

Client Request ID:

Specification Requirements:

Field Test procedures: AS 1289.5.8.1

Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1

Sampling Method: AS1289.1.2.1 Clause 6.4 (b)

Source: Onsite

Material: Clay

Sample Data

Sample ID	S24DS-00774	S24DS-00775				
Field Sample ID	1	2				
Date Tested	15/02/2024	15/02/2024				
Time Tested	13:45	14:00				
E:	357053.292	357060.740				
N:	5781687.356	5781689.757				
EL:	42.251	42.155				
Lot:	4801	4802				

Field and Laboratory Data

Depth of Test (mm)	225	225				
Depth of Layer (mm)	250	250				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	17.7	19.5				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m ³)	2.02	2.01				
Field Dry Density (t/m ³)	1.71	1.68				
Peak Converted Wet Density (t/m ³)	1.98	1.95				
Optimum Moisture Content (%)	20.0	22.0				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	88.0	88.5				
Moisture Variation (%)	2.5 dry	2.5 dry				
Hilf Density Ratio (%)	102.0	103.5				

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

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



Accredited for compliance with ISO/IEC 17025
– Testing



Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712 Date of Issue: 26/04/2024

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: Clay

Sample Data

Sample ID	S24DS-02391	S24DS-02392	S24DS-02393	S24DS-02394	S24DS-02395
Field Sample ID	1	2	3	4	5
Date Tested	17/04/2024	17/04/2024	17/04/2024	17/04/2024	17/04/2024
Time Tested	14:00	14:15	14:30	14:45	14:00
E:	357119	357095	357082	357081	357080
N:	5781682	5781692	5781640	5781630	5781613
Lot:	4816	4814	4811	4810	4809
Lift:	1	1	1	1	1

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0
Field Moisture Content (%)	25.9	24.7	27.2	24.4	25.2
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m ³)	1.88	1.97	1.96	1.95	1.96
Field Dry Density (t/m ³)	1.50	1.58	1.54	1.57	1.57
Peak Converted Wet Density (t/m ³)	1.84	1.85	1.85	1.88	1.90
Optimum Moisture Content (%)	29.0	27.5	29.5	27.0	27.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	89.5	89.5	91.5	91.0	93.0
Moisture Variation (%)	3.0 dry	2.5 dry	2.5 dry	2.5 dry	2.0 dry
Hilf Density Ratio (%)	102.5	106.0	106.5	104.0	103.0


Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

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

Accredited for compliance with ISO/IEC 17025
– Testing



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

Approved Signatory: M. Longfield
(Senior Technician)
Date of Issue: 26/04/2024

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-02424	S24DS-02425	S24DS-02426			
Field Sample ID	1	2	3			
Date Tested	18/04/2024	18/04/2024	18/04/2024			
Time Tested	13:00	13:20	13:40			
E:	357097.336	357094.075	357095.321			
N:	5781644.263	5781631.597	5781617.898			
EL:	41.288	41.38	41.42			
Lot / Lift:	4812 / 2	4811 / 2	4810 / 2			

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 (%)	24.7	24.1	24.2			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m³)	1.95	1.84	1.94			
Field Dry Density (t/m³)	1.56	1.48	1.56			
Peak Converted Wet Density (t/m³)	1.85	1.87	1.89			
Optimum Moisture Content (%)	27.5	27.0	26.5			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	90.5	90.0	91.5			
Moisture Variation (%)	2.5 dry	2.5 dry	2.0 dry			
Hilf Density Ratio (%)	105.0	98.5	103.0			

Comments



Dandenong South
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Report No: HDR:W24DS00609

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 26/04/2024
Approved Signatory: M. Longfield
(Senior Technician)
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	S24DS-02487	S24DS-02488	S24DS-02489	S24DS-02490	S24DS-02491	S24DS-02492
Field Sample ID	1	2	3	4	5	6
Date Tested	22/04/2024	22/04/2024	22/04/2024	22/04/2024	22/04/2024	22/04/2024
Time Tested	08:50	09:00	09:10	09:20	09:30	09:40
E:	357087.957	357088.819	357108.861	357093.400	357104.927	357100.058
N:	5781649.935	5781665.176	5781661.240	5761676.548	5781688.656	5781672.610
EL:	41.271	41.206	41.17	41.348	40.781	41.155
Lot / Lift:	4812 / 2	4813 / 2	4813 / 2	4814 / 2	4815 / 1	4815 / 2

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Moisture Content (%)	26.9	27.3	27.2	26.2	25.2	23.4
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m ³)	1.94	1.94	1.91	1.93	1.90	1.86
Field Dry Density (t/m ³)	1.53	1.52	1.51	1.53	1.51	1.51
Peak Converted Wet Density (t/m ³)	1.86	1.88	1.87	1.88	1.86	1.89
Optimum Moisture Content (%)	28.0	29.5	29.0	28.5	28.0	26.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	97.0	93.0	93.5	91.5	90.0	88.0
Moisture Variation (%)	1.0 dry	2.0 dry	2.0 dry	2.0 dry	2.5 dry	3.0 dry
Hilf Density Ratio (%)	104.0	103.0	102.0	102.5	102.0	98.5

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

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



Accredited for compliance with ISO/IEC 17025
– Testing



Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712 Date of Issue: 26/04/2024

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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: Onsite
Material: Clay

Sample Data

Sample ID	S24DS-02493	S24DS-02494				
Field Sample ID	7	8				
Date Tested	22/04/2024	22/04/2024				
Time Tested	10:00	13:20				
E:	357135.415	357133.579				
N:	5781684.178	5781681.99				
EL:	39.720	39.893				
Lot / Lift:	4817 / 1	4817 / 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 (%)	20.7	25.7				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.97	1.89				
Field Dry Density (t/m ³)	1.64	1.51				
Peak Converted Wet Density (t/m ³)	1.95	1.87				
Optimum Moisture Content (%)	23.0	28.5				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	89.5	90.5				
Moisture Variation (%)	2.5 dry	2.5 dry				
Hilf Density Ratio (%)	101.0	101.0				

Comments



Dandenong South
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Report No: HDR:W24DS00618

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 26/04/2024

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: Clay

Sample Data

Sample ID	S24DS-02536	S24DS-02537	S24DS-02538	S24DS-02539	S24DS-02540
Field Sample ID	1	2	3	4	5
Date Tested	23/04/2024	23/04/2024	23/04/2024	23/04/2024	23/04/2024
Time Tested	09:35	09:45	10:00	11:15	11:30
E:	357180.030	357192.469	357216.673	357130.675	357118.931
N:	5781675.120	5781674.126	5781671.043	5781675.224	5781684.004
EL:	38.0	37.408	36.257	40.252	40.426
Lot / Lift:	4829 / 1	4830 / 1	4832 / 1	4877 / 3	4816 / 2

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0
Field Moisture Content (%)	25.5	22.4	17.8	18.8	22.1
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m ³)	1.96	1.94	1.94	1.95	2.00
Field Dry Density (t/m ³)	1.56	1.59	1.65	1.64	1.64
Peak Converted Wet Density (t/m ³)	1.85	1.85	1.93	1.95	1.87
Optimum Moisture Content (%)	28.0	25.5	21.0	21.5	25.0
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	91.0	88.0	85.5	87.5	87.5
Moisture Variation (%)	2.5 dry	3.0 dry	3.0 dry	2.5 dry	3.0 dry
Hilf Density Ratio (%)	106.0	105.0	100.5	99.5	107.0

Comments



Dandenong South
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Report No: HDR:W24DS00643

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 6/05/2024

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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: Onsite
Material: Clay

Sample Data

Sample ID	S24DS-02632	S24DS-02633	S24DS-02634			
Field Sample ID	1	2	3			
Date Tested	29/04/2024	29/04/2024	29/04/2024			
Time Tested	09:00	09:15	14:15			
E:	357180.477	352176.831	357183.723			
N:	5781626.078	5781604.994	5781615.268			
EL:	38.203	38.523	38.231			
Lot / Lift:	4826 / 1	4824 / 1	4825 / 2			

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 (%)	21.6	24.9	18.9			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	2.00	1.93	2.04			
Field Dry Density (t/m ³)	1.65	1.55	1.71			
Peak Converted Wet Density (t/m ³)	1.91	1.88	2.01			
Optimum Moisture Content (%)	24.5	26.0	21.0			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	88.5	96.0	90.0			
Moisture Variation (%)	2.5 dry	1.0 dry	2.0 dry			
Hilf Density Ratio (%)	104.5	102.5	101.5			

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

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



Accredited for compliance with ISO/IEC 17025
– Testing



Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Longfield
(Senior Technician)
Date of Issue: 6/05/2024
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: Clay

Sample Data

Sample ID	S24DS-02653	S24DS-02654	S24DS-02655			
Field Sample ID	1	2	3			
Date Tested	30/04/2024	30/04/2024	30/04/2024			
Time Tested	08:45	09:00	12:30			
E:	357169.165	357175.555	357175.643			
N:	5781590.323	5781646.668	5781654.212			
EL:	38.772	38.3824	38.414			
Lot / Lift:	4823 / 3	4827 / 3	4828 / 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	0	0			
Field Moisture Content (%)	19.0	20.0	21.0			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m³)	2.05	1.98	1.99			
Field Dry Density (t/m³)	1.72	1.65	1.65			
Peak Converted Wet Density (t/m³)	1.99	1.97	1.96			
Optimum Moisture Content (%)	22.0	22.5	22.0			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	87.5	88.5	96.0			
Moisture Variation (%)	2.5 dry	2.5 dry	1.0 dry			
Hilf Density Ratio (%)	103.0	100.5	101.5			

Comments



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

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Report No: HDR:W24DS00659

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 6/05/2024

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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: Onsite - Stage 55
Material: Clay

Sample Data

Sample ID	S24DS-02720				
Field Sample ID	1				
Date Tested	1/05/2024				
Time Tested	09:00				
E:	357159.188				
N:	5781592.980				
EL:	39.164				
Lot / Lift:	4823 / 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 (%)	27.0				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.89				
Field Dry Density (t/m ³)	1.49				
Peak Converted Wet Density (t/m ³)	1.88				
Optimum Moisture Content (%)	29.0				
Compactive Effort	Standard				
Moisture Ratio (%)	93.5				
Moisture Variation (%)	2.0 dry				
Hilf Density Ratio (%)	100.5				

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

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



Accredited for compliance with ISO/IEC 17025
– Testing



Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Longfield
(Senior Technician)
Date of Issue: 6/05/2024
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:
Client Request ID:
Specification Requirements:
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: Silty Clay

Sample Data

Sample ID	S24DS-02741	S24DS-02742	S24DS-02743			
Field Sample ID	1	2	3			
Date Tested	2/05/2024	2/05/2024	2/05/2024			
Time Tested	10:30	10:30	11:00			
E:	357161.223	357164.224	357187.965			
N:	5781600.350	5781626.194	5781649.674			
RL:	39.211	38.982	38.479			
Lot / Layer:	4824 / 5	4826 / 5	4828 / 5			

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 (%)	18.3	19.3	24.2			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	2.06	2.01	1.97			
Field Dry Density (t/m ³)	1.74	1.68	1.58			
Peak Converted Wet Density (t/m ³)	1.92	1.98	1.91			
Optimum Moisture Content (%)	21.5	22.0	26.5			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	84.5	87.0	90.5			
Moisture Variation (%)	3.0 dry	2.5 dry	2.5 dry			
Hilf Density Ratio (%)	107.5	101.5	102.5			

Comments

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

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



Accredited for compliance with ISO/IEC 17025
– Testing



Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Longfield
(Senior Technician)
Date of Issue: 9/05/2024
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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-02830	S24DS-02831	S24DS-02832	S24DS-02833	S24DS-02834
Field Sample ID	1	2	3	4	5
Date Tested	6/05/2024	6/05/2024	6/05/2024	6/05/2024	6/05/2024
Time Tested	10:50	11:10	14:15	14:25	14:45
E:	357242.308	357242.817	357218.763	357215.304	357210.537
N:	5781596.939	5781644.735	5781646.000	5781618.636	5781507.476
EL:	35.397	34.939	36.194	36.584	36.995
Lot / Lift:	4839 / 1	4842 / 1	4833 / 1	4835 / 1	4837 / 1

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0
Field Moisture Content (%)	17.7	20.6	26.9	16.1	18.0
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.90	1.91	2.00	2.17	1.92
Field Dry Density (t/m³)	1.61	1.58	1.58	1.87	1.63
Peak Converted Wet Density (t/m³)	1.93	2.00	1.85	2.03	1.92
Optimum Moisture Content (%)	18.5	20.0	28.5	16.5	18.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	95.5	103.5	94.0	97.0	96.0
Moisture Variation (%)	1.0 dry	0.5 wet	1.5 dry	0.5 dry	1.0 dry
Hilf Density Ratio (%)	98.0	95.5	108.5	107.0	100.0

Comments



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Report No: HDR:W24DS00698

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 9/05/2024

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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: Onsite
Material: Clay

Sample Data

Sample ID	S24DS-02855	S24DS-02856	S24DS-02857	S24DS-02858	S24DS-02859	
Field Sample ID	1	2	3	4	5	
Date Tested	7/05/2024	7/05/2024	7/05/2024	7/05/2024	7/05/2024	
Time Tested	09:30	09:45	10:00	14:25	14:40	
E:	357248.400	357249.156	357161.223	357209.843	357214.061	
N:	5781670.567	5781655.302	5781600.350	5781603.450	5781635.210	
EL:	34.349	34.528	34.211	38.924	36.508	
Lot / Layer:	4844 / 1	4843 / 1	4824 / 5	4836 / 2	4834 / 2	
			Retest of S24DS-02741			

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	
Depth of Layer (mm)	200	200	200	200	200	
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	
Oversize Wet (%)	0	0	0	0	0	
Field Moisture Content (%)	20.1	20.3	17.0	17.9	15.2	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m ³)	2.01	1.96	1.97	2.04	2.07	
Field Dry Density (t/m ³)	1.68	1.63	1.69	1.73	1.80	
Peak Converted Wet Density (t/m ³)	2.02	1.99	1.93	1.99	2.00	
Optimum Moisture Content (%)	19.5	19.0	21.0	20.5	18.0	
Compactive Effort	Standard	Standard	Standard	Standard	Standard	
Moisture Ratio (%)	103.5	108.0	81.5	86.5	84.5	
Moisture Variation (%)	0.5 wet	1.5 wet	3.5 dry	2.5 dry	2.5 dry	
Hilf Density Ratio (%)	99.5	98.5	102.5	103.0	103.5	

Comments



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Report No: HDR:W24DS00703

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 9/05/2024

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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: Onsite
Material: Clay

Sample Data

Sample ID	S24DS-02869	S24DS-02870			
Field Sample ID	1	2			
Date Tested	8/05/2024	8/05/2024			
Time Tested	09:00	09:15			
E:	357194.378	357212.565			
N:	5781672.495	5781668.22			
EL:	37.58	36.464			
Lot / Lift:	4830 / 2	4831 / 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 (%)	24.0	23.0			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	1.93	1.92			
Field Dry Density (t/m ³)	1.56	1.56			
Peak Converted Wet Density (t/m ³)	1.90	1.89			
Optimum Moisture Content (%)	24.0	25.5			
Compactive Effort	Standard	Standard			
Moisture Ratio (%)	99.5	89.5			
Moisture Variation (%)	0.0	2.5 dry			
Hilf Density Ratio (%)	102.0	101.5			

Comments



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Report No: HDR:W24DS00718

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Longfield
(Senior Technician)
Date of Issue: 16/05/2024
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: Clay

Sample Data

Sample ID	S24DS-02894	S24DS-02895	S24DS-02896	S24DS-02897	S24DS-02898	S24DS-02899
Field Sample ID	1	2	3	4	5	6
Date Tested	9/05/2024	9/05/2024	9/05/2024	9/05/2024	9/05/2024	9/05/2024
Time Tested	09:15	09:30	09:45	09:00	11:15	11:30
E:	357244.239	357249.814	357215.304	357218.763	35726.384	357220.636
N:	5781611.080	5781643.625	5781618.636	5781646	5781669.852	5781668.557
EL:	35.263	34.793	36.600	36.14	36.598	36.252
Lot / Layer:	4840 / 3	4842 / 3	44835 / 1	4833 / 1	4831 / 2	4832 / 2
			Retest of S24DS-02833	Retest of S24DS-02832		

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Moisture Content (%)	17.4	21.2	17.4	15.0	23.0	18.2
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m ³)	1.93	1.97	2.08	2.09	1.95	2.03
Field Dry Density (t/m ³)	1.65	1.63	1.77	1.82	1.58	1.72
Peak Converted Wet Density (t/m ³)	2.02	2.03	2.08	2.08	1.92	2.00
Optimum Moisture Content (%)	18.0	19.5	19.5	17.5	26.0	20.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	96.0	109.5	88.5	85.0	89.0	88.0
Moisture Variation (%)	1.0 dry	2.0 wet	2.0 dry	2.5 dry	2.5 dry	2.5 dry
Hilf Density Ratio (%)	96.0	97.0	100.0	100.5	101.0	101.5

Comments



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Report No: HDR:W24DS00718

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 16/05/2024

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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: Onsite
Material: Clay

Sample Data

Sample ID	S24DS-02900				
Field Sample ID	7				
Date Tested	9/05/2024				
Time Tested	11:45				
E:	357258.228				
N:	5781666.167				
EL:	33.970				
Lot / Layer:	4844 / 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 (%)	19.9				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.92				
Field Dry Density (t/m ³)	1.60				
Peak Converted Wet Density (t/m ³)	2.01				
Optimum Moisture Content (%)	20.0				
Compactive Effort	Standard				
Moisture Ratio (%)	100.0				
Moisture Variation (%)	0.0				
Hilf Density Ratio (%)	95.5				

Comments



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Report No: HDR:W24DS00742

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 17/05/2024

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: Clay

Sample Data

Sample ID	S24DS-02992	S24DS-02993	S24DS-02994			
Field Sample ID	1	2	3			
Date Tested	14/05/2024	14/05/2024	14/05/2024			
Time Tested	10:45	14:30	14:45			
E:	357256.689	357353.921	357248.453			
N:	5781652.655	5781625.267	5781584.110			
EL:	34.316	34.884	35.381			
Lot / Lift:	4843 / 2	4841 / 3	4838 / 3			

Field and Laboratory Data

Depth of Test (mm)	125	125	125			
Depth of Layer (mm)	150	150	150			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Moisture Content (%)	21.2	22.2	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/m ³)	2.03	1.95	1.99			
Field Dry Density (t/m ³)	1.67	1.59	1.64			
Peak Converted Wet Density (t/m ³)	1.95	1.99	1.95			
Optimum Moisture Content (%)	21.0	21.5	20.0			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	100.0	102.5	107.5			
Moisture Variation (%)	0.0	0.5 wet	1.5 wet			
Hilf Density Ratio (%)	104.5	97.5	102.0			

Comments



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Report No: HDR:W24DS00756

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 17/05/2024
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: Offsite - Stage 55
Material: Clay

Sample Data

Sample ID	S24DS-03038				
Field Sample ID	1				
Date Tested	15/05/2024				
Time Tested	11:45				
E:	357254.053				
N:	5781613.489				
EL:	35.548				
Lot / Layer:	4840 / 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 (%)	26.0				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.91				
Field Dry Density (t/m ³)	1.52				
Peak Converted Wet Density (t/m ³)	1.87				
Optimum Moisture Content (%)	29.0				
Compactive Effort	Standard				
Moisture Ratio (%)	89.0				
Moisture Variation (%)	3.0 dry				
Hilf Density Ratio (%)	102.0				

Comments



Dandenong South
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Report No: HDR:W24DS00765

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 22/05/2024

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: Imported - Stage 55
Material: Clay

Sample Data

Sample ID	S24DS-03068	S24DS-03069			
Field Sample ID	1	2			
Date Tested	16/05/2024	16/05/2024			
Time Tested	08:45	09:00			
E:	357244.689	357251.819			
N:	5781628.328	5781601.163			
EL:	35.445	35.337			
Lot / Lift:	4841 / 5	4839 / 5			

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 (%)	19.7	20.2			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	2.00	2.04			
Field Dry Density (t/m ³)	1.67	1.70			
Peak Converted Wet Density (t/m ³)	2.03	1.99			
Optimum Moisture Content (%)	20.0	22.0			
Compactive Effort	Standard	Standard			
Moisture Ratio (%)	99.5	92.0			
Moisture Variation (%)	0.0	1.5 dry			
Hilf Density Ratio (%)	98.5	102.5			

Comments



Dandenong South
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Report No: HDR:W24DS00771

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712
Date of Issue: 22/05/2024

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: Imported - Stage 55
Material: Clay

Sample Data

Sample ID	S24DS-03090	S24DS-03091			
Field Sample ID	1	2			
Date Tested	17/05/2024	17/05/2024			
Time Tested	09:10	09:30			
E:	357743.290	357248.886			
N:	5781586.214	5781631.166			
EL:	36.064	35.491			
Lot / Lift:	4838 / 6	4841 / 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 (%)	24.3	18.5			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	1.95	1.99			
Field Dry Density (t/m ³)	1.57	1.68			
Peak Converted Wet Density (t/m ³)	1.90	1.97			
Optimum Moisture Content (%)	27.0	21.0			
Compactive Effort	Standard	Standard			
Moisture Ratio (%)	90.0	89.0			
Moisture Variation (%)	2.5 dry	2.0 dry			
Hilf Density Ratio (%)	102.5	101.0			

Comments

Material Test Report

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Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712 Date of Issue: 13/09/2023

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Sample Details

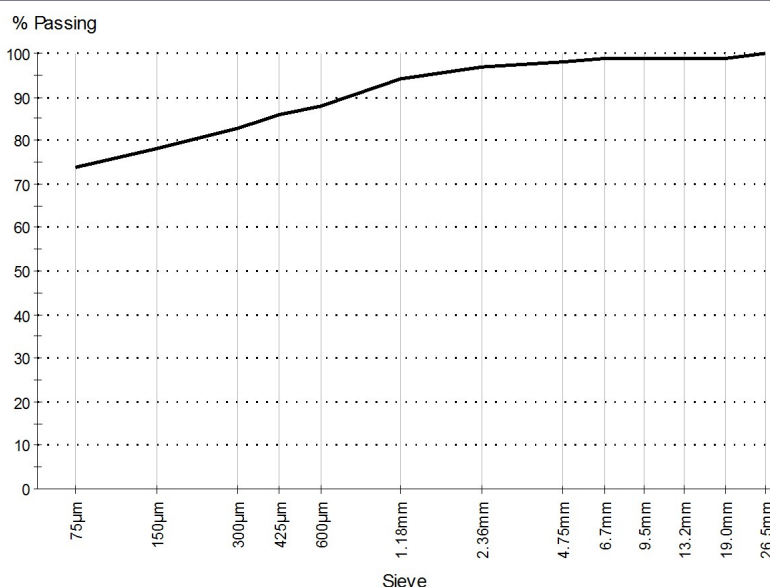
Sample Location E: 3572583.607, N: 5781586.073, EL: 34.871, Lot: 4839, Layer: 2
Field Sample ID 1
Date Sampled 11/08/2023
Time Sampled 08:55
Source Onsite
Material Silty Clay
Specification AS Grading
Sampling Method AS1289.1.2.1 Clause 6.4 (b)
Sample ID S23DS-06675

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	20.6	
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	13.0	
Mould Length (mm)		250	
Crumbling		No	

Particle Size Distribution

AS 1289.3.6.1



Drying By: Oven
Date Tested: 22/08/2023

Note: Sample Washed

Sieve Size	% Passing	Limits
26.5mm	100	
19.0mm	99	
13.2mm	99	
9.5mm	99	
6.7mm	99	
4.75mm	98	
2.36mm	97	
1.18mm	94	
600µm	88	
425µm	86	
300µm	83	
150µm	78	
75µm	74	

Comments

N/A



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Fax: +61 3 9706 9431

Report No: MAT:S23DS-06675/1

Issue No: 1

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Green Estate, Stage 48
Project No.: 1091936.048

Order No.:
TRN:

CG Request No.:
Lot No.:



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(Senior Technician)

Site Number: 12712
Date of Issue: 13/09/2023

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Other Test Results

Description	Method	Result	Limits
Curling		Yes	
Cracking		No	
Liquid Limit (%)	AS 1289.3.1.2	47	
Plastic Limit (%)	AS 1289.3.2.1	17	
Plasticity Index (%)	AS 1289.3.3.1	30	
Date Tested		25/08/2023	

Comments

N/A

Material Test Report

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Project No.: 1091936.048

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



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Accreditation Number: 12719 Approved Signatory: M. Longfield
(Senior Technician)

Site Number: 12712 Date of Issue: 6/05/2024

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Sample Details

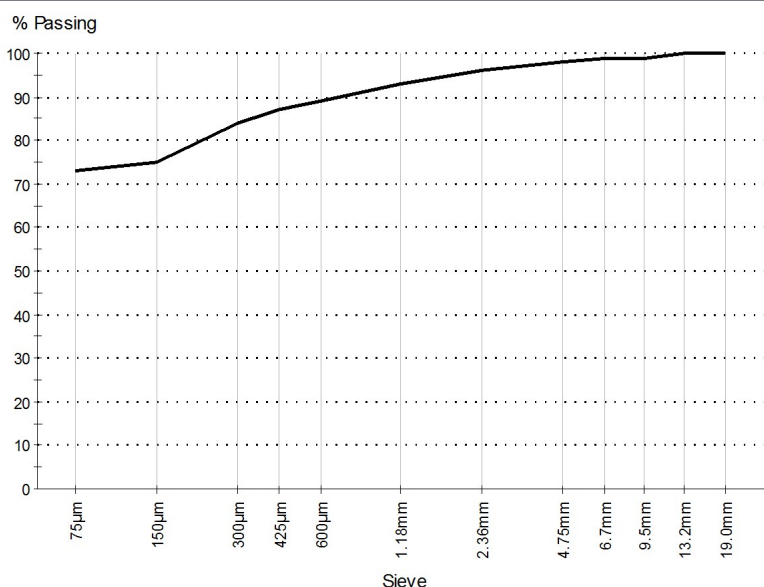
Sample Location E: 357095, N: 5781692, Lot: 4814, Lift: 1
Field Sample ID 1
Date Sampled 17/04/2024
Time Sampled 14:15
Source Onsite
Material Clay
Specification AS Grading
Sampling Method AS1289.1.2.1 Clause 6.4 (b)
Sample ID S24DS-02396

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	22.9	
Sample History	AS 1289.1.1	Oven-dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	9.5	
Mould Length (mm)		250	
Crumbling		No	

Particle Size Distribution

AS 1289.3.6.1



Drying By: Oven
Date Tested: 29/04/2024

Note: Sample Washed

Sieve Size	% Passing	Limits
19.0mm	100	
13.2mm	100	
9.5mm	99	
6.7mm	99	
4.75mm	98	
2.36mm	96	
1.18mm	93	
600µm	89	
425µm	87	
300µm	84	
150µm	75	
75µm	73	

Comments

N/A



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Report No: MAT:S24DS-02396/1

Issue No: 1

Material Test Report

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(Senior Technician)

Site Number: 12712
Date of Issue: 6/05/2024

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Other Test Results

Description	Method	Result	Limits
Curling		Yes	
Cracking		No	
Liquid Limit (%)	AS 1289.3.1.2	79	
Plastic Limit (%)	AS 1289.3.2.1	25	
Plasticity Index (%)	AS 1289.3.3.1	54	
Date Tested		23/04/2024	

Comments

N/A

Appendix D Controlled Fill Certificate



CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Meridian Green Estate Stage 48
Lots 4801, 4802, 4809 to 4817 and 4823
to 4844

Chadwick Geotechnics REF: 1091936.048v1

CLIENT : Greenridge Properties Pty Ltd
P.O Box 4136
Dandenong South Victoria, 3164

DATE: 27 May 2024

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 (10 August 2023 and was completed on 17 May 2024). 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

Robert Barden
Project Manager

Timothy Chadwick
Project Director

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