# Australian Geotechnical Testing

## Level One Inspection and Testing

**Project No: AGTEAGTE240210**
**Project: Drews Paddock Stage 3**
**Suburb: Invermay**

## Client: Wayne Horne Earth Moving

## Date: 3rd July 2024

| Geotechnical | Pavement | Environmental | Residential | Design |
| Slope Stability Assessment | Land Capability Assessments | Erosion and Sediment Control Plan |
| Retaining Walls | Level 1 Supervision | Earthworks Specification's | Percolation |

**Adelaide | Brisbane | Ballarat | Melbourne | Warrnambool**

# Contents

# 1 Introduction

Australian Geotechnical Testing (AGT) has been engaged by Wayne Horne Earth Moving to provide Level 1 Geotechnical Supervision for the Drews Paddock Stage 2 project. The Estate is located in Invermay.

This Level 1 report presents the results of supervision activities, compaction and moisture control, material placement and laboratory testing for ground works undertaken for the project. This report covers construction activities carried out from **6th December 2023 to 22nd April 2024.**

# 2 Scope of Works

The scope of works involved the placement of on-site General Fill. Fill Material was placed in Level one fill areas, in accordance with ***AS 3798-2007***, ***Guidelines on earthworks for commercial and residential developments and project specifications***. The level of FILL to be placed is less than 5m as per AS3798 Section 1.1.

The fill material is required as per AS3798 and the project specification to achieve:

- **95% Standard Maximum Dry Density (Compaction)**

General fill material used for the construction was locally sourced and predominantly comprising of **Clay.**

# 3 Inspections / Supervision

Full-time Level 1 supervision and inspection was undertaken including the supervision and inspections regarding the stripping and removal as per AS3798 Section 3 shall have removed:

- Organic soils, such as topsoils, severely root affected subsoils and peat;
- Contaminated soils are part of the brief;
- Materials which undergo volume change or loss of strength when disturbed and exposed to moisture;
- Silts, or materials that have deleterious engineering properties of silt;
- Other materials with properties that are unsuitable for the forming of structural fill;
- Fill that contains wood, metal plastic, boulders or other deleterious material, in sufficient proportions to affect the required performance of the fill.
- The maximum particle size of any rocks or other lumps, within the layer, has not exceeded two-thirds ($^2/_3$) of the compacted layer thickness.

The lots inspected were essentially homogeneous in relation to material type and moisture condition, rolling response and compaction technique and which has been used for the assessment of relative compaction of an area of work (AS3798 Section 1.2.8).

Prior to placement any existing filled ground, for which the conditions of the placement are not adequately documented have not been assumed to have been of either standard compaction or of the composition adequate to support fill or any loads has been removed (AS3798 Section 2).

# 4 Testing

The project was classified as **Residential**, thereby requiring a minimum compaction result of ***95%*** density ratio Standard Compaction for the ***cohesive soils (***AS 1289 5.7.1 & 5.1.1) throughout the Level 1 Fill and in accordance with AS 3798-2007 – Table 5.2. The test was performed using a Nuclear Density Gauge for field density determination *AS 1289.5.8.1.*

As a minimum testing was undertaken either 3 tests per lot, 1 test per 2,500m$^2$ per layer, or 1 test per 500m$^3$ throughout the placement of fill as per AS3798 Table 8.1.

The material was site derived Sandy Clay fill & imported Gravelly Sandy Clay Fill**.** The material was placed in approximately 250mm loose layers, rolling effort with on-site Compactor (to seal of each layer of placed General Fill material) to a compacted 150mm layer that achieved 95% Standard Compaction which met Australian Standards specifications. This was considered the best method to achieve compaction using the plant and machinery available.

The NATA compaction reports verify the achievement of the minimum density requirement of 95% Standard Compaction throughout the full depth area, with each layer tested accordingly. All test results were provided to our client: Wayne Horne Earth Moving for inclusion within their internal quality system.

At the completion of the structural layers and material within 150mm of permanent subgrade level in cuttings, test rolling was undertaken, and the layers withstood test rolling without visible deformation or springing (AS 3798 Section 5.5).

The area covered by this Level 1 Supervision report is shown in the Site Plan (Refer to Appendix A). The results of the laboratory Testing are indicated in Appendix B.

# 5 Conclusion

On the completion of the earthworks and after analysing the materials used, it has been concluded that the filling procedure conducted by **our client Wayne Horne Earth Moving satisfied** the general requirements of AS 3798 regards to the placement of fill materials on a project under Level 1 Supervision and in accordance with the project specification as provided to AGT.

The fill meets the requirements for “structural fill for residential applications” in accordance with AS3798. The fill has been placed, compacted and tested in accordance with AS3798 and the fill meets the requirements for controlled fill in accordance with AS2870 (2011) “Residential Slabs and Footings”.

This report has been prepared for the benefit of our client with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement. No responsibility for this report will be taken by AGT if it is altered in any way, or not reproduced in full.

# 6 Applicability

The findings and conclusions contained in this Report are made based on site conditions that existed at the time this work was conducted. The conclusions presented in this report are relevant to the conditions of the site and the state of legislation currently enacted as at the date of this report.

Findings and conclusions are made assuming that the soil, groundwater, geological and chemical conditions detailed within this report are accurate and remain applicable to the site at the time of writing. The conclusions of this report may become invalid if filling or excavation occurs after the boreholes and test pits referred to in this report were drilled or excavated. No other warranties are made or intended.

AGT has used a degree of skill and care ordinarily exercised by reputable members of our profession practicing in the same or similar locality.

AGT does not make any representation or warranty that the conclusions in this report will be applicable in the future as there may be changes in the condition of the site, applicable legislation or other factors that would affect the conclusions contained in this report.
This report has been prepared exclusively for use by our Client. This report cannot be reproduced without the written authorisation of AGT and then can only be reproduced in its entirety.

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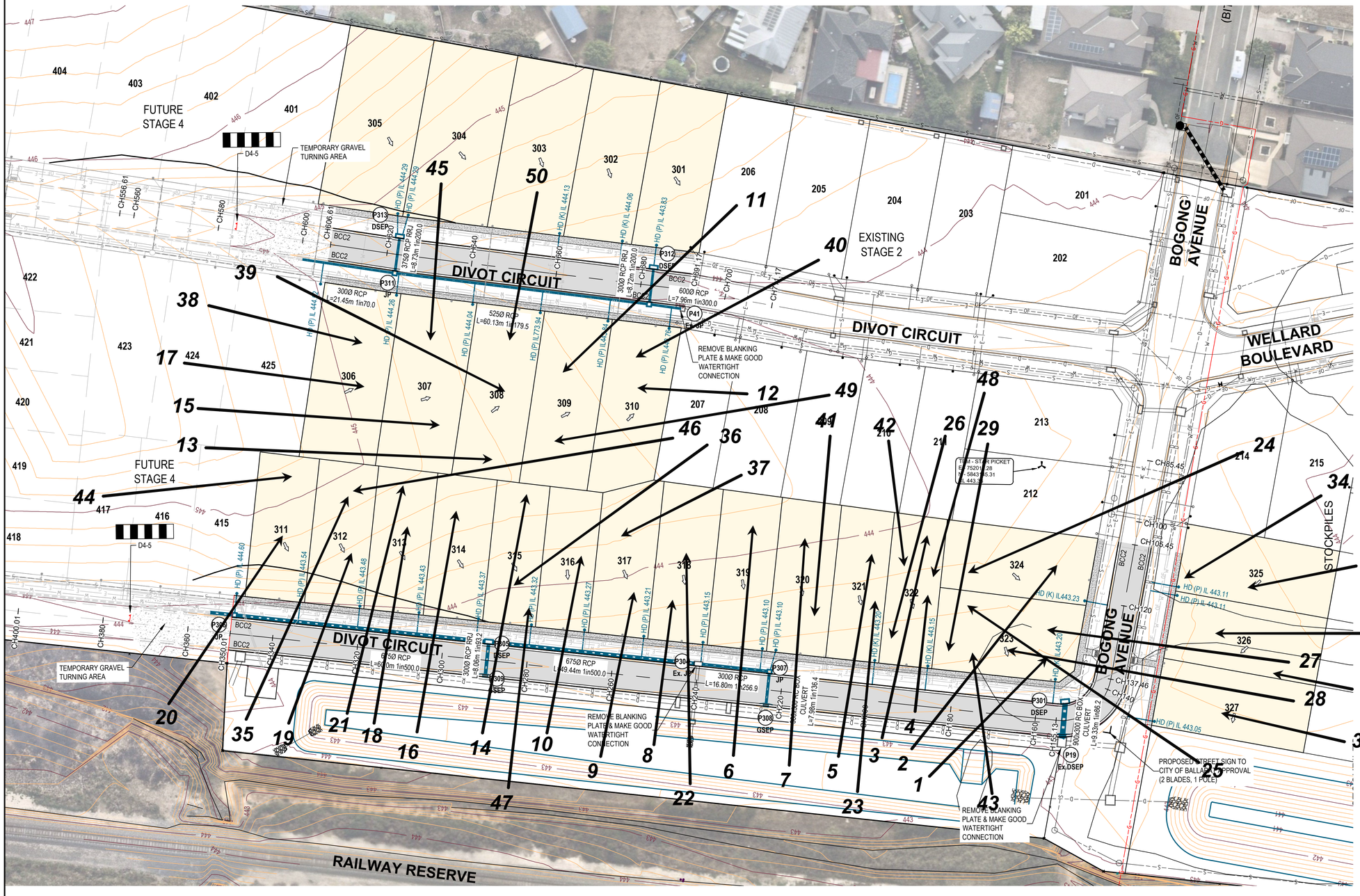
# Appendix A – Site Plan




## LEGEND

- DESIGN / EXISTING SURFACE CONTOURS
- PROPOSED STORMWATER DRAINAGE PIPE
- PROPOSED STAGE 2 STORMWATER DRAINAGE PIPE & PIT
- PROPOSED SEWER MAIN ALIGNMENT & PIT. (IN ACCORDANCE WITH CHW DESIGN DOCUMENTS)
- PROPOSED TELSTRA
- PROPOSED POWER
- PROPOSED WATER MAIN
- PROPOSED GAS MAIN
- EXISTING SEWER MAIN ALIGNMENT & PIT
- EXISTING TELSTRA
- EXISTING OPTIC FIBRE
- EXISTING POWER (O/H)
- EXISTING WATER MAIN
- EXISTING GAS MAIN
- EXISTING KERB & CHANNEL
- EXISTING STORMWATER DRAINAGE PIPE/PIT
- EXISTING TABLE DRAIN
- PROPOSED TITLE BOUNDARY
- PROPOSED EASEMENT
- PROPOSED ROAD KERB & CHANNEL(NO. 2 BARRIER KERB)
- PROPOSED ROAD CENTRELINE
- DSEP P01 — PROPOSED DOUBLE SIDE ENTRY PIT
- JP P01 — PROPOSED JUNCTION PIT
- SEP P01 — PROPOSED SIDE ENTRY PIT
- GP P01 — PROPOSED GRATED PIT
- EW P01 — PROPOSED ENDWALL & ROCK BEACHING
- HD (P) / HD (K) — PROPOSED HOUSE DRAIN CONNECTION & PROPERTY INLET PIT: (P) PIPE-(K) KERB
- LOT 20 FALL — LOT NUMBER & DIRECTION OF NATURAL SURFACE FALL
- TBM 1 — TEMPORARY BENCH MARK
- PSM — PERMANENT SURVEY MARK
- PROPOSED FOOTPATH
- EXTENT OF PROPOSED ROAD PAVEMENT
- PROPOSED LINEMARKING
- PROPOSED CUT
- PROPOSED FILL

## ROAD & DRAINAGE LAYOUT

*SCALE 1:500*

**NOTE:**
THE 3D SURFACE IS TO BE USED IN CONJUNCTION WITH THE DESIGN PLANS. THERE ARE LIKELY TO BE DISCREPANCIES, AND THE DESIGN PLANS ARE TO TAKE PRECEDENCE.

THE CONTRACTOR SHOULD CONTACT STANTEC IF THERE IS UNCERTAINTY REGARDING THE INFORMATION PROVIDED.

**NOTE:**
THE CONTRACTOR IS TO CONFIRM INVERT LEVELS OF THE EXISTING STORMWATER AT PITS P19, P41 & P304 PRIOR TO ANY DRAINAGE WORKS COMMENCING.

**NOTE:**
THE CONTRACTOR IS TO NOTIFY LAND OWNERS EFFECTED BY WORKS AT LEAST 7 DAYS PRIOR TO WORKS COMMENCING.

**NOTE:** CONTRACTOR IS TO BE AWARE OF THE LOCALISED LOWERING OF SERVICES INFRASTRUCTURE TO PROVIDE MINIMUM CLEARANCES TO EXISTING AND PROPOSED INFRASTRUCTURE. LOCALISED LOCATIONS ARE INDICATED BASED ON ANTICIPATED SERVICE INFRASTRUCTURE ALIGNMENTS AND SHOULD BE CONSIDERED BY THE CONTRACTOR WHEN PRICING.

**NOTE:**
CONTRACTOR TO CONFIRM EXISTING PAVEMENT LEVELS PRIOR TO COMMENCEMENT OF WORKS. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER. ALL KERB SETOUT TO BE INSPECTED AND APPROVED BY THE COUNCIL OFFICER PRIOR TO PLACEMENT OF KERB & CHANNEL.

**NOTE:**
HOUSE DRAINS FOR LOTS 324, 325, 326 & 327 ARE TO BE CONSTRUCTED ON EXISTING DRAINAGE LINES

**NOTE:**
ALL DISTURBED SURFACES, FENCING & OTHER ITEMS TO BE RE-INSTATED TO ORIGINAL CONDITION.

**NOTE:**
THE LOCATION OF EXISTING UNDERGROUND SERVICES ARE SHOWN INDICATIVELY ONLY. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL AUTHORITIES TO DETERMINE THE LOCATION OF UNDERGROUND SERVICES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION WORK. ANY CLASH OF WORKS WITH A SERVICE IS TO BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL ENSURE THAT ALL SERVICES ARE FULLY PROTECTED DURING CONSTRUCTION, ANY SERVICES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE.

ISSUED FOR TENDER PURPOSES ONLY

| ISSUE | ISSUED FOR | DATE | DRAWN | APPROVED |
|---|---|---|---|---|
| 01 | INFORMATION | 08/05/2023 | CB | |
| 02 | TENDER | 07/06/2023 | CB/LP | |

| ISSUE | ISSUED FOR | DATE | DRAWN | APPROVED |
|---|---|---|---|---|

| | | | |
|---|---|---|---|
| DESIGNED: | M.ANTON | DATE: | FEB 2023 |
| DRAWN: | C.BICKNELL | SCALE: | A1: 1:500 A3: 1:1000 |
| SURVEY: | STANTEC | SHEET SIZE: | A1 / A3 |
| CHECKED: | | APPROVED: | |
| DATE: | | DATE: | |



Stantec
Stantec Australia Pty Ltd | ABN 17 007 820 322
1315 Sturt Street
Ballarat, VIC 3350
Tel: 03 5330 8888
Web: www.stantec.com/au

CLIENT: villawood properties — Communities Designed for Living

PROJECT: Drew's PADDOCK INVERMAY PARK

STAGE 3
27 LOTS

CIVIL DRAWING

NORTH

DRAWING TITLE: **ROAD & DRAINAGE LAYOUT PLAN**

REF. No.: 17547-203

SHEET: C02 OF 08

REV: 02

# Appendix B – Laboratory Testing

# Material Test Report

**Report Number:** **AGT60298-1**
**Issue Number:** 1
**Date Issued:** 08/02/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1835
**Date Sampled:** 29/01/2024
**Dates Tested:** 29/01/2024 - 30/01/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock, Stage 3
**Material:** (CH) silty CLAY- Brown
**Material Source:** The grange estate

Australian Geotechnical Testing
Ballarat Laboratory
2/55 Heinz Road Delacombe VIC 3356
Phone: 1300 026 583
Email: PaulF@ausgeotest.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Paul Francis
Laboratory Manager - Ballarat
NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-1 | 60298-2 | 60298-3 |
| Date Tested | 29/01/2024 | 29/01/2024 | 29/01/2024 |
| Time Tested | 13:00 | 13:05 | 13:10 |
| Test Request #/Location | Drews Paddock - Stage 3 Lot 323 | Drews Paddock - Stage 3 Lot 324 | Drews Paddock - Stage 3 Lot 322 |
| Latitude | -37.524086 | -37.524128 | -37.524357 |
| Longitude | 143.851270 | 143.851539 | 143.851869 |
| Layer / Reduced Level | 400 Below FSL | 400 Below FSL | 400 Below FSL |
| Thickness of Layer (mm) | 150 | 150 | 150 |
| Soil Description | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown |
| Test Depth (mm) | 125 | 125 | 125 |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | 19.0 |
| Percentage of Wet Oversize (%) | ** | ** | ** |
| Field Wet Density (FWD) t/m$^3$ | 1.98 | 2.09 | 2.11 |
| Field Moisture Content % | 18.9 | 18.3 | 20.6 |
| Field Dry Density (FDD) t/m$^3$ | 1.67 | 1.76 | 1.75 |
| Peak Converted Wet Density t/m$^3$ | 2.06 | 2.16 | 2.16 |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | ** |
| Moisture Variation (Wv) % | 3.0 | 0.0 | 0.0 |
| Adjusted Moisture Variation % | ** | ** | ** |
| Hilf Density Ratio (%) | **96.0** | **96.5** | **97.5** |
| Compaction Method | **Standard** | **Standard** | **Standard** |
| Report Remarks | ** | ** | ** |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-2**
**Issue Number:** 1
**Date Issued:** 08/02/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1836
**Date Sampled:** 30/01/2024
**Dates Tested:** 30/01/2024 - 31/01/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock, Stage 3
**Material:** (CH) silty CLAY- Brown
**Material Source:** Import grange

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NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-4 | 60298-5 | |
| Date Tested | 30/01/2024 | 30/01/2024 | |
| Time Tested | 13:00 | 13:05 | |
| Test Request #/Location | Drews Paddock - Stage 2 Lot 322 | Drews Paddock - Stage 2 Lot 321 | |
| Latitude | -37.523931 | -37.523886 | |
| Longitude | 143.851575 | 143.851523 | |
| Layer / Reduced Level | 400 Below FSL | 400 Below FSL | |
| Thickness of Layer (mm) | 150 | 150 | |
| Soil Description | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | |
| Test Depth (mm) | 125 | 125 | |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | |
| Percentage of Wet Oversize (%) | ** | ** | |
| Field Wet Density (FWD) t/m$^3$ | 2.06 | 2.06 | |
| Field Moisture Content % | 16.9 | 19.4 | |
| Field Dry Density (FDD) t/m$^3$ | 1.76 | 1.73 | |
| Peak Converted Wet Density t/m$^3$ | 2.05 | 2.07 | |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | |
| Moisture Variation (Wv) % | 0.0 | 0.0 | |
| Adjusted Moisture Variation % | ** | ** | |
| Hilf Density Ratio (%) | **100.5** | **99.5** | |
| Compaction Method | **Standard** | **Standard** | |
| Report Remarks | ** | ** | |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-3**
**Issue Number:** 1
**Date Issued:** 08/02/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1841
**Date Sampled:** 31/01/2024
**Dates Tested:** 31/01/2024 - 01/02/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock Stage 3, Invermay
**Material:** Silty CLAY

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Approved Signatory: Paul Francis
Laboratory Manager - Ballarat
NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-6 | 60298-7 | |
| Date Tested | 31/01/2024 | 31/01/2024 | |
| Time Tested | 13:00 | 13:10 | |
| Test Request #/Location | Drews Paddock-Stage 3 Lot 319 | Drews Paddock-Stage 3 Lot 320 | |
| Latitude | -37.52384 | -37.5235 | |
| Longitude | 143.85176 | 143.851 | |
| Layer / Reduced Level | 450mm below FSL | 450mm below FSL | |
| Thickness of Layer (mm) | 150 | 150 | |
| Soil Description | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | |
| Test Depth (mm) | 125 | 125 | |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | |
| Percentage of Wet Oversize (%) | ** | ** | |
| Field Wet Density (FWD) t/m$^3$ | 2.00 | 1.97 | |
| Field Moisture Content % | 21.5 | 21.9 | |
| Field Dry Density (FDD) t/m$^3$ | 1.65 | 1.62 | |
| Peak Converted Wet Density t/m$^3$ | 1.98 | 2.01 | |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | |
| Moisture Variation (Wv) % | 0.0 | -0.5 | |
| Adjusted Moisture Variation % | ** | ** | |
| Hilf Density Ratio (%) | **101.5** | **98.0** | |
| Compaction Method | **Standard** | **Standard** | |
| Report Remarks | ** | ** | |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-4**
**Issue Number:** 1
**Date Issued:** 08/02/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1842
**Date Sampled:** 02/02/2024
**Dates Tested:** 02/02/2024 - 03/02/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock, Stage 3
**Material:** (CH) silty CLAY- Brown
**Material Source:** Import grange

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| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-8 | 60298-9 | |
| Date Tested | 02/02/2024 | 02/02/2024 | |
| Time Tested | 16:20 | 16:25 | |
| Test Request #/Location | Drews Paddock - Stage 3 Lot 318 | Drews Paddock - Stage 3 Lot 317 | |
| Latitude | -37.523451 | -37.523444 | |
| Longitude | 143.851608 | 143.851639 | |
| Layer / Reduced Level | 450 Below FSL | 450 Below FSL | |
| Thickness of Layer (mm) | 150 | 150 | |
| Soil Description | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | |
| Test Depth (mm) | 125 | 125 | |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | |
| Percentage of Wet Oversize (%) | ** | ** | |
| Field Wet Density (FWD) t/m$^3$ | 2.08 | 2.08 | |
| Field Moisture Content % | 21.9 | 18.4 | |
| Field Dry Density (FDD) t/m$^3$ | 1.70 | 1.75 | |
| Peak Converted Wet Density t/m$^3$ | 2.08 | 2.06 | |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | |
| Moisture Variation (Wv) % | -0.5 | -0.5 | |
| Adjusted Moisture Variation % | ** | ** | |
| Hilf Density Ratio (%) | **100.0** | **101.0** | |
| Compaction Method | **Standard** | **Standard** | |
| Report Remarks | ** | ** | |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-5**
**Issue Number:** 1
**Date Issued:** 08/02/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1846
**Dates Tested:** 06/02/2024 - 07/02/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock, Stage 3
**Material:** Silty CLAY
**Material Source:** Import

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NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-10 | 60298-11 | 60298-12 |
| Date Tested | 06/02/2024 | 06/02/2024 | 06/02/2024 |
| Time Tested | 13:00 | 13:05 | 13:10 |
| Test Request #/Location | Drews Paddock - Stage 3 Lot 316 | Drews Paddock - Stage 3 Lot 309 | Drews Paddock - Stage 3 Lot 310 |
| Latitude | -37.52356 | -37.52364 | 37.52368 |
| Longitude | 143.5152 | 143.85171 | 143.85185 |
| Layer / Reduced Level | 450 mm below FSL | 450 mm below FSL | 450 mm below FSL |
| Thickness of Layer (mm) | 150 | 150 | 150 |
| Soil Description | Silty CLAY | Silty CLAY | Silty CLAY |
| Test Depth (mm) | 125 | 125 | 125 |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | 19.0 |
| Percentage of Wet Oversize (%) | ** | ** | ** |
| Field Wet Density (FWD) t/m$^3$ | 2.15 | 2.01 | 1.96 |
| Field Moisture Content % | 13.4 | 14.5 | 16.1 |
| Field Dry Density (FDD) t/m$^3$ | 1.90 | 1.75 | 1.69 |
| Peak Converted Wet Density t/m$^3$ | 2.12 | 2.00 | 1.93 |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | ** |
| Moisture Variation (Wv) % | 3.0 | 2.0 | 2.0 |
| Adjusted Moisture Variation % | ** | ** | ** |
| Hilf Density Ratio (%) | **101.5** | **100.0** | **102.0** |
| Compaction Method | **Standard** | **Standard** | **Standard** |
| Report Remarks | ** | ** | ** |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-7**
**Issue Number:** 1
**Date Issued:** 15/02/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1853
**Date Sampled:** 13/02/2024
**Dates Tested:** 13/02/2024 - 14/02/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock, Stage 3
**Material:** (CH) silty CLAY- Brown
**Material Source:** Lucas, The Grange

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Laboratory Manager - Ballarat
NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | | |
|---|---|---|---|---|
| Sample Number | 60298-21 | 60298-22 | 60298-23 | 60298-24 |
| Date Tested | 13/02/2024 | 13/02/2024 | 13/02/2024 | 13/02/2024 |
| Time Tested | 13:00 | 13:05 | 13:10 | 13:15 |
| Test Request #/Location | Drews Paddock - Stage 3 Lot 313 | Drews Paddock - Stage 3 Lot 318 | Drews Paddock - Stage 3 Lot 321 | Drews Paddock - Stage 3 Lot 324 |
| Latitude | -37.523351 | -37.523715 | -37.523853 | -37.524298 |
| Longitude | 143.8515301 | 143.851497 | 143.851341 | 143.851602 |
| Layer / Reduced Level | FSL | FSL | FSL | FSL |
| Thickness of Layer (mm) | 150 | 150 | 150 | 150 |
| Soil Description | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown |
| Test Depth (mm) | 125 | 125 | 125 | 125 |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | 19.0 | 19.0 |
| Percentage of Wet Oversize (%) | ** | ** | ** | ** |
| Field Wet Density (FWD) t/m$^3$ | 2.04 | 2.11 | 2.11 | 2.15 |
| Field Moisture Content % | 16.8 | 13.3 | 18.0 | 14.6 |
| Field Dry Density (FDD) t/m$^3$ | 1.75 | 1.86 | 1.79 | 1.88 |
| Peak Converted Wet Density t/m$^3$ | 2.08 | 2.12 | 2.15 | 2.11 |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | ** | ** |
| Moisture Variation (Wv) % | 1.5 | 0.0 | -0.5 | -0.5 |
| Adjusted Moisture Variation % | ** | ** | ** | ** |
| Hilf Density Ratio (%) | **98.5** | **99.5** | **98.5** | **102.0** |
| Compaction Method | **Standard** | **Standard** | **Standard** | **Standard** |
| Report Remarks | ** | ** | ** | ** |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-8**
**Issue Number:** 1
**Date Issued:** 01/03/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1871
**Date Sampled:** 06/12/2023
**Dates Tested:** 09/12/2023 - 09/12/2023
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Remarks:** Copied from AGT60290-1 as incorrect Stage Number used
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock Stage 3, Invermay
**Material:** (CH) silty CLAY- Brown
**Material Source:** Onsite

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Laboratory Manager - Ballarat
NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-25 | 60298-26 | 60298-27 |
| Date Tested | 06/02/2024 | 06/02/2024 | 06/02/2024 |
| Time Tested | 12:20 | 16:40 | 16:45 |
| Test Request #/Location | Level One Supervision Lot 323 | Level One Supervision Lot 322 | Level One Supervision Lot 323 |
| Easting | -37.5241 | -37.5248 | -67.52416 |
| Northing | 143.85173 | 143.85126 | 143.85132 |
| Layer / Reduced Level | 1.0m below FSL | 1.0m below FSL | 1.0m below FSL |
| Thickness of Layer (mm) | 150 | 150 | 150 |
| Soil Description | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown |
| Test Depth (mm) | 125 | 125 | 125 |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | 19.0 |
| Percentage of Wet Oversize (%) | ** | ** | ** |
| Field Wet Density (FWD) t/m$^3$ | 1.92 | 1.96 | 1.92 |
| Field Moisture Content % | 25.0 | 23.0 | 17.0 |
| Field Dry Density (FDD) t/m$^3$ | 1.54 | 1.60 | 1.64 |
| Peak Converted Wet Density t/m$^3$ | 1.95 | 1.97 | 1.96 |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | ** |
| Moisture Variation (Wv) % | 0.5 | 0.0 | 0.0 |
| Adjusted Moisture Variation % | ** | ** | ** |
| Hilf Density Ratio (%) | **98.5** | **99.5** | **98.0** |
| Compaction Method | **Standard** | **Standard** | **Standard** |
| Report Remarks | ** | ** | ** |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-9**
**Issue Number:** 1
**Date Issued:** 01/03/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1872
**Date Sampled:** 07/02/2024
**Dates Tested:** 08/12/2023 - 09/12/2023
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Remarks:** Copies from AGT60290-2 as incorrect Stage used
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock Stage 3, Invermay
**Material:** (CH) silty CLAY- Brown
**Material Source:** Onsite

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Laboratory Manager - Ballarat
NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-28 | 60298-29 | |
| Date Tested | 07/12/2023 | 07/12/2023 | |
| Time Tested | 11:15 | 16:15 | |
| Test Request #/Location | Level One Supervision Lot 323 | Level One Supervision Lot 323 | |
| Latitude | -37.52412 | -37.52403 | |
| Longitude | 143.85132 | 143.85132 | |
| Layer / Reduced Level | 700mm below FSL | 400mm below FSL | |
| Thickness of Layer (mm) | 150 | 150 | |
| Soil Description | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | |
| Test Depth (mm) | 125 | 125 | |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | |
| Percentage of Wet Oversize (%) | ** | ** | |
| Field Wet Density (FWD) t/m$^3$ | 1.91 | 1.92 | |
| Field Moisture Content % | 26.0 | 30.3 | |
| Field Dry Density (FDD) t/m$^3$ | 1.52 | 1.48 | |
| Peak Converted Wet Density t/m$^3$ | 1.92 | 1.93 | |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | |
| Moisture Variation (Wv) % | 0.0 | 0.0 | |
| Adjusted Moisture Variation % | ** | ** | |
| Hilf Density Ratio (%) | **99.5** | **99.5** | |
| Compaction Method | **Standard** | **Standard** | |
| Report Remarks | ** | ** | |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-10**
**Issue Number:** 1
**Date Issued:** 01/03/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1873
**Date Sampled:** 18/12/2023
**Dates Tested:** 21/12/2023 - 21/12/2023
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Remarks:** Copied from AGT60290-7 as incorrect stage used
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock Stage 3, Invermay
**Material:** (CH) silty CLAY- Brown
**Material Source:** Onsite

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NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-30 | 60298-31 | |
| Date Tested | 18/02/2024 | 18/02/2024 | |
| Time Tested | 13:00 | 13:05 | |
| Test Request #/Location | Level One Supervision Lot 326 | Level One Supervision Lot 325 | |
| Latitude | -37.52428 | -37.52478 | |
| Longitude | 143.84495 | 143.85173 | |
| Layer / Reduced Level | 300mm below FSL | 300mm below FSL | |
| Thickness of Layer (mm) | 150 | 150 | |
| Soil Description | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | |
| Test Depth (mm) | 125 | 125 | |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | |
| Percentage of Wet Oversize (%) | ** | ** | |
| Field Wet Density (FWD) t/m$^3$ | 2.10 | 2.12 | |
| Field Moisture Content % | 14.5 | 20.5 | |
| Field Dry Density (FDD) t/m$^3$ | 1.83 | 1.76 | |
| Peak Converted Wet Density t/m$^3$ | 2.08 | 2.09 | |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | |
| Moisture Variation (Wv) % | 0.0 | 0.0 | |
| Adjusted Moisture Variation % | ** | ** | |
| Hilf Density Ratio (%) | **100.5** | **101.5** | |
| Compaction Method | **Standard** | **Standard** | |
| Report Remarks | ** | ** | |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-11**
**Issue Number:** 1
**Date Issued:** 01/03/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1874
**Date Sampled:** 20/12/2023
**Dates Tested:** 21/12/2023 - 21/12/2023
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock Stage 3, Invermay
**Material:** (CH) silty CLAY- Brown
**Material Source:** Onsite

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| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-32 | 60298-33 | |
| Date Tested | 20/12/2023 | 20/12/2023 | |
| Time Tested | 13:00 | 13:05 | |
| Test Request #/Location | Level One Supervision Lot 326 | Level One Supervision Lot 327 | |
| Latitude | -37.52657 | -37.52489 | |
| Longitude | 143.58184 | 143.85128 | |
| Layer / Reduced Level | FSL | FSL | |
| Thickness of Layer (mm) | 150 | 150 | |
| Soil Description | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | |
| Test Depth (mm) | 125 | 125 | |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | |
| Percentage of Wet Oversize (%) | ** | ** | |
| Field Wet Density (FWD) t/m$^3$ | 2.00 | 2.04 | |
| Field Moisture Content % | 14.5 | 20.5 | |
| Field Dry Density (FDD) t/m$^3$ | 1.75 | 1.69 | |
| Peak Converted Wet Density t/m$^3$ | 2.04 | 2.07 | |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | |
| Moisture Variation (Wv) % | 0.0 | 0.5 | |
| Adjusted Moisture Variation % | ** | ** | |
| Hilf Density Ratio (%) | **98.0** | **98.5** | |
| Compaction Method | **Standard** | **Standard** | |
| Report Remarks | ** | ** | |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-12**
**Issue Number:** 1
**Date Issued:** 01/03/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1875
**Date Sampled:** 21/12/2023
**Dates Tested:** 22/12/2023 - 22/12/2023
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock Stage 3, Invermay
**Material:** (CH) silty CLAY- Brown
**Material Source:** Onsite

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| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-34 | | |
| Date Tested | 21/12/2023 | | |
| Time Tested | 13:00 | | |
| Test Request #/Location | Level One Supervision<br>Lot 325 | | |
| Latitude | -37.52515 | | |
| Longitude | 143.8514 | | |
| Layer / Reduced Level | FSL | | |
| Thickness of Layer (mm) | 150 | | |
| Soil Description | (CH) silty CLAY- Brown | | |
| Test Depth (mm) | 125 | | |
| Sieve used to determine oversize (mm) | 19.0 | | |
| Percentage of Wet Oversize (%) | ** | | |
| Field Wet Density (FWD) t/m$^3$ | 2.07 | | |
| Field Moisture Content % | 19.3 | | |
| Field Dry Density (FDD) t/m$^3$ | 1.74 | | |
| Peak Converted Wet Density t/m$^3$ | 2.09 | | |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | | |
| Moisture Variation (Wv) % | 0.5 | | |
| Adjusted Moisture Variation % | ** | | |
| Hilf Density Ratio (%) | **99.0** | | |
| Compaction Method | **Standard** | | |
| Report Remarks | ** | | |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-13**
**Issue Number:** 1
**Date Issued:** 26/03/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1903
**Date Sampled:** 22/03/2024
**Dates Tested:** 22/03/2024 - 25/03/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock Stage 3
**Material:** Silty Clay
**Material Source:** Onsite

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| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | | | | |
|---|---|---|---|---|---|---|
| Sample Number | 60298-38 | 60298-39 | 60298-40 | 60298-41 | 60298-42 | 60298-43 |
| Date Tested | 22/03/2024 | 22/03/2024 | 22/03/2024 | 22/03/2024 | 22/03/2024 | 22/03/2024 |
| Time Tested | 10:40 | 10:45 | 10:50 | 12:55 | 13:00 | 13:05 |
| Test Request #/Location | Level One Supervison Lot 306 | Level One Supervison Lot 308 | Level One Supervison Lot 310 | Level One Supervison Lot 320 | Level One Supervison Lot 322 | Level One Supervison Lot 323 |
| Latitude | -37.523625 | -37.523265 | -37.523055 | -37.524645 | -37.523986 | -37.524372 |
| Longitude | 143.851921 | 143.852075 | 143.851907 | 143.851506 | 143.851567 | 143.851412 |
| Layer / Reduced Level | FSL | FSL | FSL | FSL | FSL | FSL |
| Thickness of Layer (mm) | 150 | 150 | 150 | 150 | 150 | 150 |
| Soil Description | Silty Clay | Silty Clay | Silty Clay | Silty Clay | Silty Clay | Silty Clay |
| Test Depth (mm) | 125 | 125 | 125 | 125 | 125 | 125 |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 |
| Percentage of Wet Oversize (%) | ** | ** | ** | ** | ** | ** |
| Field Wet Density (FWD) t/m$^3$ | 1.98 | 1.95 | 1.97 | 1.93 | 1.96 | 1.94 |
| Field Moisture Content % | 22.0 | 22.0 | 20.3 | 18.5 | 19.6 | 19.5 |
| Field Dry Density (FDD) t/m$^3$ | 1.63 | 1.60 | 1.64 | 1.63 | 1.64 | 1.62 |
| Peak Converted Wet Density t/m$^3$ | 2.01 | 2.02 | 2.00 | 2.01 | 2.01 | 2.02 |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | ** | ** | ** | ** |
| Moisture Variation (Wv) % | 0.5 | -0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Adjusted Moisture Variation % | ** | ** | ** | ** | ** | ** |
| Hilf Density Ratio (%) | **98.5** | **96.5** | **99.0** | **96.0** | **97.5** | **96.0** |
| Compaction Method | **Standard** | **Standard** | **Standard** | **Standard** | **Standard** | **Standard** |
| Report Remarks | ** | ** | ** | ** | ** | ** |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-14**
**Issue Number:** 1
**Date Issued:** 26/03/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1899
**Date Sampled:** 21/03/2024
**Dates Tested:** 21/03/2024 - 22/03/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock Stage 3
**Material:** Silty Clay
**Material Source:** Onsite

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NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-35 | 60298-36 | 60298-37 |
| Date Tested | 21/03/2024 | 21/03/2024 | 21/03/2024 |
| Time Tested | 13:05 | 13:10 | 13:15 |
| Test Request #/Location | Level One Supervision Lot 312 | Level One Supervision Lot 315 | Level One Supervision Lot 317 |
| Latitude | -37.523051 | -37.523312 | -37.523465 |
| Longitude | 143.851660 | 143.851834 | 143.851735 |
| Layer / Reduced Level | FSL | FSL | FSL |
| Thickness of Layer (mm) | 150 | 150 | 150 |
| Soil Description | Silty Clay | Silty Clay | Silty Clay |
| Test Depth (mm) | 125 | 125 | 125 |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | 19.0 |
| Percentage of Wet Oversize (%) | ** | ** | ** |
| Field Wet Density (FWD) t/m$^3$ | 1.81 | 1.82 | 1.85 |
| Field Moisture Content % | 19.7 | 31.4 | 24.7 |
| Field Dry Density (FDD) t/m$^3$ | 1.51 | 1.38 | 1.48 |
| Peak Converted Wet Density t/m$^3$ | 1.89 | 1.87 | 1.86 |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | ** |
| Moisture Variation (Wv) % | 4.0 | 2.5 | 2.5 |
| Adjusted Moisture Variation % | ** | ** | ** |
| Hilf Density Ratio (%) | **96.0** | **97.0** | **99.5** |
| Compaction Method | **Standard** | **Standard** | **Standard** |
| Report Remarks | ** | ** | ** |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-15**
**Issue Number:** 1
**Date Issued:** 27/03/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1904
**Date Sampled:** 25/03/2024
**Dates Tested:** 25/03/2024 - 25/03/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock Stage 3
**Material:** (CH) silty CLAY- Brown
**Material Source:** Import

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Laboratory Manager - Ballarat
NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-44 | 60298-45 | |
| Date Tested | 25/03/2024 | 25/03/2024 | |
| Time Tested | 13:00 | 13:05 | |
| Test Request #/Location | Drews Paddock Stage 3 Lot 311 | Drews Paddock Stage 3 Lot 307 | |
| Latitude | -37.523004 | -37.523208 | |
| Longitude | 143.851848 | 143.851876 | |
| Layer / Reduced Level | FSL | FSL | |
| Thickness of Layer (mm) | 150 | 150 | |
| Soil Description | (CH) silty CLAY- Brown | (CH) silty CLAY- Brown | |
| Test Depth (mm) | 125 | 125 | |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | |
| Percentage of Wet Oversize (%) | ** | ** | |
| Field Wet Density (FWD) t/m$^3$ | 2.03 | 1.95 | |
| Field Moisture Content % | 19.9 | 27.1 | |
| Field Dry Density (FDD) t/m$^3$ | 1.69 | 1.53 | |
| Peak Converted Wet Density t/m$^3$ | 2.03 | 2.00 | |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | |
| Moisture Variation (Wv) % | 0.0 | 0.0 | |
| Adjusted Moisture Variation % | ** | ** | |
| Hilf Density Ratio (%) | **100.0** | **97.5** | |
| Compaction Method | **Standard** | **Standard** | |
| Report Remarks | ** | ** | |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-16**
**Issue Number:** 1
**Date Issued:** 27/03/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1910
**Date Sampled:** 26/03/2024
**Dates Tested:** 26/03/2024 - 26/03/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock, Stage 3
**Material:** (CL) CLAY- Brown
**Material Source:** Import Napoleons Quarrie

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NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-46 | 60298-47 | 60298-48 |
| Date Tested | 26/03/2024 | 26/03/2024 | 26/03/2024 |
| Time Tested | 13:00 | 13:05 | 13:10 |
| Test Request #/Location | Drews Paddock - Stage 3 Lot 312 | Drews Paddock - Stage 3 Lot 315 | Drews Paddock - Stage 3 Lot 322 |
| Latitude | -37.523110 | -37.523482 | -37.523902 |
| Longitude | 143.851988 | 143.881913 | 143.851813 |
| Layer / Reduced Level | 150 Below FSL | 300 Below FSL | 150 Below FSL |
| Thickness of Layer (mm) | 150 | 150 | 150 |
| Soil Description | (CL) CLAY- Brown | (CL) CLAY- Brown | (CL) CLAY- Brown |
| Test Depth (mm) | 125 | 125 | 125 |
| Sieve used to determine oversize (mm) | 19.0 | 19.0 | 19.0 |
| Percentage of Wet Oversize (%) | ** | ** | ** |
| Field Wet Density (FWD) t/m$^3$ | 1.93 | 1.94 | 1.94 |
| Field Moisture Content % | 21.7 | 23.2 | 24.6 |
| Field Dry Density (FDD) t/m$^3$ | 1.59 | 1.57 | 1.56 |
| Peak Converted Wet Density t/m$^3$ | 1.98 | 1.87 | 1.92 |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | ** | ** |
| Moisture Variation (Wv) % | 5.5 | 4.5 | 2.0 |
| Adjusted Moisture Variation % | ** | ** | ** |
| Hilf Density Ratio (%) | **97.5** | **103.5** | **101.5** |
| Compaction Method | **Standard** | **Standard** | **Standard** |
| Report Remarks | ** | ** | ** |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-17**
**Issue Number:** 1
**Date Issued:** 22/04/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1935
**Date Sampled:** 16/04/2024
**Dates Tested:** 16/04/2024 - 19/04/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock, Stage 3
**Material:** (CL) CLAY- Brown
**Material Source:** Onsite

Australian Geotechnical Testing
Ballarat Laboratory
2/55 Heinz Road Delacombe VIC 3356
Phone: 1300 026 583
Email: PaulF@ausgeotest.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Paul Francis
Laboratory Manager - Ballarat
NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-49 | | |
| Date Tested | 16/04/2024 | | |
| Time Tested | 12:50 | | |
| Test Request #/Location | Drews Paddock - Stage 3<br>Lot 309 | | |
| Latitude | -37.523407 | | |
| Longitude | 143.852116 | | |
| Layer / Reduced Level | FSL | | |
| Thickness of Layer (mm) | 150 | | |
| Soil Description | CLAY | | |
| Test Depth (mm) | 125 | | |
| Sieve used to determine oversize (mm) | 19.0 | | |
| Percentage of Wet Oversize (%) | ** | | |
| Field Wet Density (FWD) t/m$^3$ | 2.05 | | |
| Field Moisture Content % | 18.2 | | |
| Field Dry Density (FDD) t/m$^3$ | 1.74 | | |
| Peak Converted Wet Density t/m$^3$ | 2.09 | | |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | | |
| Moisture Variation (Wv) % | -1.5 | | |
| Adjusted Moisture Variation % | ** | | |
| Hilf Density Ratio (%) | **98.0** | | |
| Compaction Method | **Standard** | | |
| Report Remarks | ** | | |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Material Test Report

**Report Number:** **AGT60298-18**
**Issue Number:** 1
**Date Issued:** 26/04/2024
**Client:** Wayne Horne Earthmoving
3 Trewin Street, Wendouree VIC 3355
**Project Number:** AGT60298
**Project Name:** Drews Paddock, Stage 3
**Project Location:** Invermay
**Work Request:** 1950
**Date Sampled:** 22/04/2024
**Dates Tested:** 22/04/2024 - 24/04/2024
**Sampling Method:** AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
**Specification:** 95% Standard
**Site Selection:** Selected by Client
**Location:** Drews Paddock Stage 3
**Material:** (CH) silty CLAY- Brown
**Material Source:** Onsite

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Approved Signatory: Paul Francis
Laboratory Manager - Ballarat
NATA Accredited Laboratory Number: 20457

| Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1 | | | |
|---|---|---|---|
| Sample Number | 60298-50 | | |
| Date Tested | 22/04/2024 | | |
| Time Tested | 15:55 | | |
| Test Request #/Location | Drews Paddock Stage 3<br>Lot 308 | | |
| Latitude | -37.523525 | | |
| Longitude | 143.851783 | | |
| Layer / Reduced Level | 150 below | | |
| Thickness of Layer (mm) | 150 | | |
| Soil Description | (CH) silty CLAY- Brown | | |
| Test Depth (mm) | 125 | | |
| Sieve used to determine oversize (mm) | 19.0 | | |
| Percentage of Wet Oversize (%) | ** | | |
| Field Wet Density (FWD) t/m$^3$ | 1.92 | | |
| Field Moisture Content % | 25.0 | | |
| Field Dry Density (FDD) t/m$^3$ | 1.54 | | |
| Peak Converted Wet Density t/m$^3$ | 1.94 | | |
| Adjusted Peak Converted Wet Density t/m$^3$ | ** | | |
| Moisture Variation (Wv) % | 4.0 | | |
| Adjusted Moisture Variation % | ** | | |
| Hilf Density Ratio (%) | **99.0** | | |
| Compaction Method | **Standard** | | |
| Report Remarks | ** | | |

**Moisture Variation Note:**
Positive values = test is dry of OMC
Negative values = test is wet of OMC

# Appendix C – Site Photos