Viewpoint Estate Stage E5 Huntly

Earthworks Supervision Report for Dunlop & Pitson

> Report 20C 0619 April, 2021





Viewpoint Estate Stage E5 Huntly

Earthworks Supervision Report

for **Dunlop & Pitson**

Revision

Revision	Date	Authorised
20C 0619	07/04/2021	SEH

Distribution (this revision only)

Recipient	Format	Date
GTSS	On file	07/04/2021
Dunlop & Pitson Contact: Darren Pitson	Email PDF	074/04/2021



TABLE OF CONTENTS

1	INT	TRODUCTION	4
2	SC	COPE OF WORKS	4
	2.1	AREA OF WORK	4
	2.2	PLACEMENT SPECIFICATION	4
		SPECTION AND TESTING	
4	SU	JMMARY OF TEST RESULTS	5
		ATEMENT OF COMPLIANCE	

APPENDIX

Site Plan Test Reports 1 INTRODUCTION

Dunlop & Pitson commissioned Geotechnical Testing Services (GTS) to undertake Level 1

Supervision and testing (AS3798-2007) for the earthworks for the residential subdivision Viewpoint

Estate Stage E5, Huntly.

Level 1 Testing was generally performed in line with AS3798-2007 "Guidelines on Earthworks for

Commercial and Residential Development" and provides inspection of the construction of controlled

fill and compaction testing in accordance with AS1289 "Methods of Testing Soils for Engineering

Purposes". The Level 1 testing was undertaken by Geotechnicians with supervision provided by a

Geotechnical Engineer from GTS.

2 SCOPE OF WORKS

2.1 AREA OF WORK

Geotechnical Testing Services provided Level 1 inspection and testing of the engineered fill placed

in Lots 518 to 523, 529 to 533 and 5537 to 540.

The depth of fill across the site varied from none to around 1300mm with the approximate locations

shown on the attached site plan. It is noted that sites with less than 300mm were not included in the

controlled filling supervision.

2.2 PLACEMENT SPECIFICATION

Whilst there was no earthworks specification compiled for this project, the placement of the fill and

associated works generally followed the recommendations outlined in AS3798-2007 "Guidelines for

Earthworks for Commercial and Residential Developments" and the construction specification.

In summary, the earthworks comply with the following:

The layers for residential lots are to be compacted to at least 95% of the density ratio in

accordance with AS1289 5.1.1 (or 5.7.1), based on Standard compaction.

In accordance with Table 8.1 of AS3798-2007, the filling may be considered a large scale (greater

than 1500m²) and therefore a minimum of 1 test per 2500m² or 3 tests per visit are required. It is

noted that under this scale, not every lot required testing, however, the testing was generally

conducted at 1 test per residential lot per layer which exceeds the minimum requirements. It is noted

at i content at i content i content at per indication and a content at a content at

that part lots at the end of the fill were not tested but were compacted at the same rate as the adjacent lot and are considered as part of the controlled fill. This is the case with Lots 518 and 523.

Geotechnical Testing Services (Southern)

Page 4

3 INSPECTION AND TESTING

Inspection of the excavated bases were conducted by a Senior Geotechnical Engineer and it was observed that the unsuitable material (vegetation, topsoil/silt) had been removed with the base consisting of a Silty Clay material of good strength.

Level 1 inspection and testing was undertaken by a geotechnician from GTS who nominated the timing and location of the in-situ density tests. The approximate location of each test is recorded on the test reports and attached fill plan.

Laboratory compaction testing was undertaken on a one to one basis at our Bendigo laboratory. A summary of the results of the compaction control testing is presented in a table below with the full NATA endorsed test reports included in the Appendix.

4 SUMMARY OF TEST RESULTS

A summary of the test results is included in the following table with full NATA accredited reports included in the Appendix.

Project No.	Sample No.	Test Date	Location	Reduced Level (mm)	Moisture Variation %O.M.C	Hilf Density Ratio %
1	B20-6737E	10/06/2020	Lot 519	-600	2.5	103.0
2	B20-6737F	10/06/2020	Lot 520	-600	2.5	100.0
3	B20-6737G	10/06/2020	Lot 521	-600	2.5	96.5
4	B20-6744D	11/06/2020	Lot 540	FSL	2.5	105.5
5	B20-6744E	11/06/2020	Lot 519	-300	1.5	102.5
6	B20-6744F	11/06/2020	Lot 520	-300	1.5	97.0
7	B20-6744G	11/06/2020	Lot 521	-300	1.5	101.0
8	B20-6770A	16/06/2020	Lot 519	FSL	1.0	100.0
9	B20-6770B	16/06/2020	Lot 520	FSL	2.0	102.0
10	B20-6770C	16/06/2020	Lot 521	FSL	1.5	97.5
11	B20-8031C	2/12/2020	Lot 521	-300	3.0	107.5
12	B20-8048A	4/12/2020	Lot 530	-600	2.0	100.0
13	B20-8048B	4/12/2020	Lot 521	FSL	2.0	101.5
14	B20-8048C	4/12/2020	Lot 522	FSL	2.0	103.5
15	B20-8077A	8/12/2020	Lot 533	-300	-0.5	103.5
16	B20-8077B	8/12/2020	Lot 530	-300	2.0	107.0
17	B20-8116A	11/12/2020	Lot 533	FSL	4.5	99.5
18	B20-8116B	11/12/2020	Lot 531	FSL	0.5	100.0

Geotechnical Testing Services (Southern)

Report: 20C 0619 Report

Project No.	Sample No.	Test Date	Location	Reduced Level (mm)	Moisture Variation %O.M.C	Hilf Density Ratio %
19	B20-8116C	11/12/2020	Lot 530	FSL	2.0	100.5
20	B20-8116D	11/12/2020	Lot 529	FSL	3.0	105.5
21	B20-8149A	16/12/2020	Lot 531	-300	1.5	97.0
22	B20-8149B	16/12/2020	Lot 530	-1000	0.5	97.5
23	B20-8149C	16/12/2020	Lot 529	-300	3.0	97.0
24	B21-8240A	12/01/2021	Lot 531	FSL	0.5	98.0
25	B21-8240B	12/01/2021	Lot 530	-600	0.0	99.0
26	B21-8240C	12/01/2021	Lot 529	FSL	0.5	97.5
27	B21-8260A	14/01/2021	Lot 530	-300	2.0	100.5
28	B21-8300A	19/01/2021	Lot 530	FSL	1.0	103.5
29	B21-8674A	11/03/2021	Lot 538	-300	0.0	101.5
30	B21-8719A	17/03/2021	Lot 537	FSL	2.5	103.0
31	B21-8719B	17/03/2021	Lot 538	FSL	1.0	102.5
32	B21-8719C	17/03/2021	Lot 539	FSL	2.0	106.0

5 STATEMENT OF COMPLIANCE

GTS personnel have provided Level 1 inspection and testing services during the placement of material for the filling in Lots 518 to 523, 529 to 533 and 537 to 540. The placement of fill and construction techniques adopted was observed throughout the project.

Based on observations made by GTS personnel and the results of field and laboratory tests, we consider that the fill has been placed and compacted and is considered to be engineered or controlled fill. Therefore, subject to residential site classifications, the controlled fill material is deemed a suitable founding medium for future residential buildings. It is noted that topsoil material may be spread across the sites following completion of these earthworks and that this topsoil material is not considered controlled fill.

Shane Hampton BE (Hons), MIEAust Principal Geotechnical Engineer

Thempton

APPENDIX

FILL LEGEND

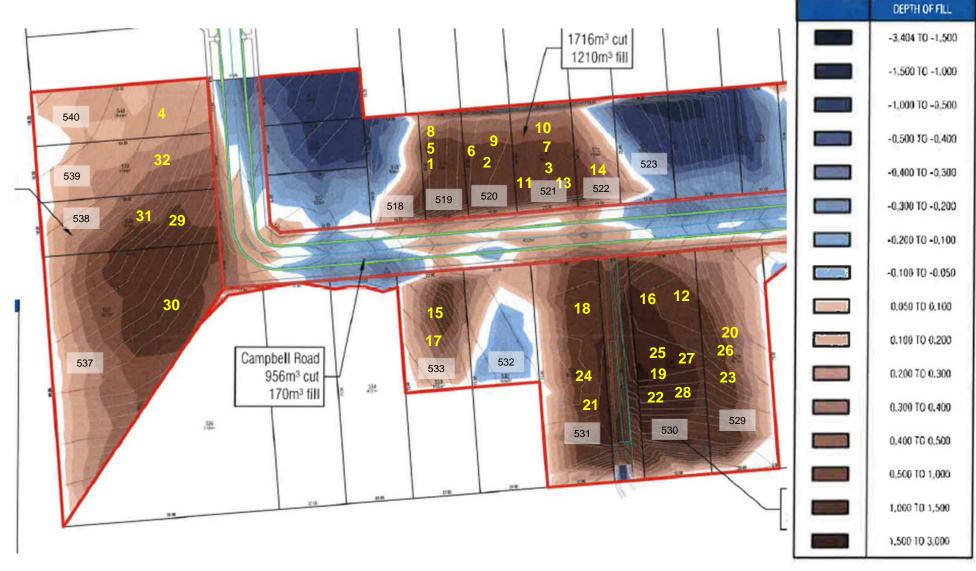


Fig 1 Site Plan

Report Number: P18615-24

Issue Number:

12/06/2020 Date Issued: Client: **Dunlop & Pitson**

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 6744 **Date Sampled:** 11/06/2020

Dates Tested: 11/06/2020 - 11/06/2020

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Selected by Client Site Selection:

Material Source: Test Location



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory Gate 7, Sharon Street Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: bryanm@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Bryan Mott

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8	.1			
Sample Number	B20-6744A	B20-6744B	B20-6744C	B20-6744D
Date Tested	11/06/2020	11/06/2020	11/06/2020	11/06/2020
Time Tested	07:56	08:04	08:09	08:13
Test Request #/Location	Stage 4 House Lot	Stage 4 House Lot	Stage 4 House Lot	Stage 5 House Lot
Chainage (m)	Lot 504	Lot 505	Lot 506	Lot 540
Location Offset (m)	Centre	Centre	Centre	Centre
Layer / Reduced Level	FSL	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0.0	0.0	0.0	0.0
Field Wet Density (FWD) t/m ³	2.16	2.17	2.12	2.19
Field Dry Density (FDD) t/m ³	**	**	**	**
Peak Converted Wet Density t/m ³	2.09	2.11	2.08	2.08
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Moisture Variation (Wv) %	2.5	2.5	3.0	2.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	103.5	103.0	102.0	105.5
Compaction Method	Standard	Standard	Standard	Standard

Moisture Variation Note:

Report Number: P18615-24

Report Number: P18615-24

Issue Number:

12/06/2020 Date Issued: Client: Dunlop & Pitson

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 6744 **Date Sampled:** 11/06/2020

Dates Tested: 11/06/2020 - 11/06/2020

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Selected by Client Site Selection:

Material Source: Test Location



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory Gate 7, Sharon Street Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: bryanm@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Bryan Mott

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8	Compaction Control AS 1289 5.7.1 & 5.8.1						
Sample Number	B20-6744E	B20-6744F	B20-6744G				
Date Tested	11/06/2020	11/06/2020	11/06/2020				
Time Tested	14:09	14:12	14:15				
Test Request #/Location	Stage 5 House Lot	Stage 5 House Lot	Stage 5 House Lot				
Chainage (m)	Lot 519	Lot 520	Lot 521				
Location Offset (m)	Back Centre	Back Centre	Back Centre				
Layer / Reduced Level	-300	-300	-300				
Thickness of Layer (mm)	300	300	300				
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay				
Test Depth (mm)	250	250	250				
Sieve used to determine oversize (mm)	19.0	19.0	19.0				
Percentage of Wet Oversize (%)	**	17.7	**				
Field Wet Density (FWD) t/m ³	2.03	1.98	2.02				
Field Dry Density (FDD) t/m ³	**	**	**				
Peak Converted Wet Density t/m ³	1.98	**	2.01				
Adjusted Peak Converted Wet Density t/m ³	**	2.04	**				
Moisture Variation (Wv) %	1.5	**	1.5				
Adjusted Moisture Variation %	**	1.5	**				
Hilf Density Ratio (%)	102.5	97.0	101.0				
Compaction Method	Standard	Standard	Standard				

Moisture Variation Note:

Report Number: P18615-24

Report Number: P18615-25

Issue Number:

Date Issued: 18/06/2020 Client: Dunlop & Pitson

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 6770 Date Sampled: 16/06/2020

Dates Tested: 16/06/2020 - 17/06/2020

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Selected by Client Site Selection:

Material Source: Test Location



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory Gate 7, Sharon Street Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: bryanm@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Bryan Mott

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B20-6770A	B20-6770B	B20-6770C
Date Tested	16/06/2020	16/06/2020	16/06/2020
Time Tested	11:53	11:56	12:01
Test Request #/Location	Stage 5 House Lot	Stage 5 House Lot	Stage 5 House Lot
Chainage (m)	Lot 519	Lot 520	Lot 521
Location Offset (m)	Centre	Centre	Centre
Layer / Reduced Level	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	**	0.0	6.9
Field Wet Density (FWD) t/m ³	2.06	2.13	2.02
Field Dry Density (FDD) t/m ³	**	**	**
Peak Converted Wet Density t/m ³	2.06	2.08	**
Adjusted Peak Converted Wet Density t/m ³	**	**	2.07
Moisture Variation (Wv) %	1.0	2.0	**
Adjusted Moisture Variation %	**	**	1.5
Hilf Density Ratio (%)	100.0	102.0	97.5
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Report Number: P18615-35

Issue Number:

Date Issued: 07/12/2020

Client: Dunlop & Pitson Pty Ltd

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 8031 Date Sampled: 02/12/2020

Dates Tested: 02/12/2020 - 03/12/2020

Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or

pavement - compacted

Site Selection: Selected by Client **Material Source: Test Location**



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory 13 Alstonvale Court East Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B20-8031A	B20-8031B	B20-8031C
Date Tested	02/12/2020	02/12/2020	02/12/2020
Time Tested	12:28	12:32	12:38
Test Request #/Location	Stage 3 House Block	Stage 3 House Block	Stage 5 House Block
Chainage (m)	Lot 488	Lot 487	Lot 521
Location Offset (m)	Front Centre	Front Centre	Centre
Layer / Reduced Level	FSL	FSL	-300
Thickness of Layer (mm)	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	2.01	2.05	2.07
Field Dry Density (FDD) t/m ³	**	**	**
Peak Converted Wet Density t/m ³	2.00	1.99	1.93
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	4.5	2.5	3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.5	103.0	107.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P18615-35

Report Number: P18615-36

Issue Number:

Date Issued: 07/12/2020

Client: Dunlop & Pitson Pty Ltd

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 8048 Date Sampled: 04/12/2020

Dates Tested: 04/12/2020 - 07/12/2020

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Site Selection: Selected by Client **Material Source: Test Location**



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory 13 Alstonvale Court East Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B20-8048A	B20-8048B	B20-8048C
Date Tested	04/12/2020	04/12/2020	04/12/2020
Time Tested	07:30	07:36	07:39
Test Request #/Location	Stage 3 House Block 530	Stage 3 House Block 521	Stage 3 House Block 522
Chainage (m)	Centre	Centre	Centre
Location Offset (m)	**	**	**
Layer / Reduced Level	-600	FSL	FSL
Thickness of Layer (mm)	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	2.04	2.08	2.12
Field Dry Density (FDD) t/m ³	**	**	**
Peak Converted Wet Density t/m ³	2.04	2.05	2.05
Adjusted Peak Converted Wet Density //m ³	**	**	**
Moisture Variation (Wv) %	2.0	2.0	2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.0	101.5	103.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P18615-37

Issue Number:

Date Issued: 08/12/2020

Client: Dunlop & Pitson Pty Ltd

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly
Work Request: 8077
Date Sampled: 08/12/2020

Dates Tested: 08/12/2020 - 08/12/2020

Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or

pavement - compacted

Site Selection: Selected by Client

Material Source: Test Location



Geotechnical Testing Services (Southern)
Bendigo Soil and Concrete Testing Laboratory
13 Alstonvale Court East Bendigo VIC 3550

Phone: (03) 5441 4881 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B20-8077A	B20-8077B	B20-8077C
Date Tested	08/12/2020	08/12/2020	08/12/2020
Time Tested	07:51	07:57	11:28
Test Request #/Location	Stage 5 House Block	Stage 5 House Block	Stage 3 Dam Embankment
Chainage (m)	Lot 533	Lot 530	Centre
_ocation Offset (m)	Front Centre	Front Centre	Centre
Layer / Reduced Level	-300	-300	FSL
Thickness of Layer (mm)	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	2.18	2.21	1.98
Field Dry Density (FDD) t/m ³	**	**	**
Peak Converted Wet Density t/m ³	2.10	2.07	1.97
Adjusted Peak Converted Wet Density /m3	**	**	**
Moisture Variation (Wv) %	-0.5	2.0	2.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	103.5	107.0	101.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P18615-38

Issue Number:

Date Issued: 14/12/2020

Client: Dunlop & Pitson Pty Ltd

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 8116 Date Sampled: 11/12/2020

Dates Tested: 11/12/2020 - 11/12/2020

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Selected by Client Site Selection: **Material Source: Test Location**



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory 13 Alstonvale Court East Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.	1			
Sample Number	B20-8116A	B20-8116B	B20-8116C	B20-8116D
Date Tested	11/12/2020	11/12/2020	11/12/2020	11/12/2020
Time Tested	10:40	10:45	10:51	10:56
Test Request #/Location	Stage 5 House block	Stage 5 House block	Stage 5 House block	Stage 5 House block
Chainage (m)	Lot 533	Lot 531	Lot 530	Lot 529
Location Offset (m)	Front Centre	Front Centre	Front Centre	Front Centre
Layer / Reduced Level	FSL	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0
Field Wet Density (FWD) t/m ³	2.02	2.05	2.04	2.02
Field Dry Density (FDD) t/m ³	**	**	**	**
Peak Converted Wet Density t/m ³	2.03	2.05	2.03	1.91
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Moisture Variation (Wv) %	4.5	0.5	2.0	3.0
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	99.5	100.0	100.5	105.5
Compaction Method	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**

Moisture Variation Note:

Report Number: P18615-39

Issue Number:

Date Issued: 16/12/2020

Client: Dunlop & Pitson Pty Ltd

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 8149 Date Sampled: 16/12/2020

Dates Tested: 16/12/2020 - 16/12/2020

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Selected by Client Site Selection: **Material Source: Test Location**



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory 13 Alstonvale Court East Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki

WORLD RECOGNISED ACCREDITATION NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.	1			
Sample Number	B20-8149A	B20-8149B	B20-8149C	B20-8149D
Date Tested	16/12/2020	16/12/2020	16/12/2020	16/12/2020
Time Tested	11:45	11:49	11:56	12:02
Test Request #/Location	Stage 5 Lot 531	Stage 5 Lot 530	Stage 5 Lot 529	Stage 5 Lot 493
Chainage (m)	Back of Block	Back of Block	Back of Block	Centre
Location Offset (m)	Centre	Centre	Centre	Centre
Layer / Reduced Level	-300	-1000	-300	FSL
Thickness of Layer (mm)	300	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0
Field Wet Density (FWD) t/m ³	2.02	2.09	1.98	1.92
Field Dry Density (FDD) t/m ³	**	**	**	**
Peak Converted Wet Density t/m ³	2.08	2.14	2.04	1.87
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Moisture Variation (Wv) %	1.5	0.5	3.0	4.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	97.0	97.5	97.0	103.0
Compaction Method	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**

Moisture Variation Note:

Report Number: P18615-42

Issue Number:

Date Issued: 12/01/2021

Client: Dunlop & Pitson Pty Ltd

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 8240 Date Sampled: 12/01/2021

Dates Tested: 12/01/2021 - 12/01/2021

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Site Selection: Selected by Client

Material Source: Test Location



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory 13 Alstonvale Court East Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: bryanm@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Bryan Mott

NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.1			
Sample Number	B21-8240A	B21-8240B	B21-8240C
Date Tested	12/01/2021	12/01/2021	12/01/2021
Time Tested	09:30	09:34	09:37
Test Request #/Location	Stage 5 House Lot 531	Stage 5 House Lot 530	Stage 5 House Lot 529
Chainage (m)	Centre	Centre	Centre
Location Offset (m)	**	**	**
Layer / Reduced Level	FSL	-600	FSL
Thickness of Layer (mm)	300	300	300
Soil Description	Gravelly Silty Clay	Gravelly Silty Clay	Gravelly Silty Clay
Test Depth (mm)	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	2.07	2.08	2.11
Field Dry Density (FDD) t/m ³	**	**	**
Peak Converted Wet Density t/m ³	2.11	2.11	2.16
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.5	0.0	0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.0	99.0	97.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Report Number: P18615-43

Issue Number:

Date Issued: 18/01/2021

Client: Dunlop & Pitson Pty Ltd

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 8260 Date Sampled: 14/01/2021

Dates Tested: 14/01/2021 - 15/01/2021

AS 1289.1.2.1 6.4 - Sampling from layers in earthworks or pavement - uncompacted/compacted Sampling Method:

Site Selection: Selected by Client **Material Source: Test Location**



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory 13 Alstonvale Court East Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8	.1	
Sample Number	B21-8260A	
Date Tested	14/01/2021	
Time Tested	09:14	
Test Request #/Location	Stage 5 Lot 530	
Chainage (m)	Centre	
Location Offset (m)	**	
Layer / Reduced Level	-300	
Thickness of Layer (mm)	300	
Soil Description	Gravelly Silty Clay	
Test Depth (mm)	250	
Sieve used to determine oversize (mm)	19.0	
Percentage of Wet Oversize (%)	3	
Field Wet Density (FWD) t/m ³	2.04	
Field Dry Density (FDD) t/m ³	**	
Peak Converted Wet Density t/m ³	**	
Adjusted Peak Converted Wet Density t/m ³	2.03	
Moisture Variation (Wv) %	**	
Adjusted Moisture Variation %	2.0	
Hilf Density Ratio (%)	100.5	
Compaction Method	Standard	
Report Remarks	**	

Moisture Variation Note:

Report Number: P18615-44

Issue Number:

Date Issued: 20/01/2021

Client: Dunlop & Pitson Pty Ltd

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 8300 Date Sampled: 19/01/2021

Dates Tested: 19/01/2021 - 20/01/2021

AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted $\,$ Sampling Method:

Site Selection: Selected by Client **Material Source: Test Location**



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory 13 Alstonvale Court East Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8.	1	
Sample Number	B21-8300A	
Date Tested	19/01/2021	
Time Tested	08:55	
Test Request #/Location	Stage 5 House Lot 530	
Chainage (m)	Centre	
Location Offset (m)	**	
Layer / Reduced Level	FSL	
Thickness of Layer (mm)	300	
Soil Description	Gravelly Silty Clay	
Test Depth (mm)	250	
Sieve used to determine oversize (mm)	19.0	
Percentage of Wet Oversize (%)	0	
Field Wet Density (FWD) t/m ³	2.13	
Field Dry Density (FDD) t/m ³	**	
Peak Converted Wet Density t/m ³	2.06	
Adjusted Peak Converted Wet Density t/m ³	**	
Moisture Variation (Wv) %	1.0	
Adjusted Moisture Variation %	**	
Hilf Density Ratio (%)	103.5	
Compaction Method	Standard	
Report Remarks	**	

Moisture Variation Note:

Report Number: P18615-46

Issue Number:

Date Issued: 12/03/2021

Client: Dunlop & Pitson Pty Ltd

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly
Work Request: 8674
Date Sampled: 11/03/2021

Dates Tested: 11/03/2021 - 12/03/2021

Sampling Method: AS 1289.1.2.1 6.4 - Sampling from layers in earthworks or

pavement - uncompacted/compacted

Site Selection: Selected by Client

Location: Huntly

Material Source: Test Location



Geotechnical Testing Services (Southern)
Bendigo Soil and Concrete Testing Laboratory
13 Alstonvale Court East Bendigo VIC 3550

Phone: (03) 5441 4881 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki

world recognised ACCREDITATION NATA Accredited Laboratory Number: 19506

Compaction Control AS 1289 5.7.1 & 5.8	3.1	
Sample Number	B21-8674A	
Date Tested	11/03/2021	
Time Tested	12:08	
Test Request #/Location	Stage E5 House Block	
Chainage (m)	Lot 538	
Location Offset (m)	Centre	
Layer / Reduced Level	-300	
Thickness of Layer (mm)	250	
Soil Description	Silty Gravelly Clay	
Test Depth (mm)	200	
Sieve used to determine oversize (mm)	19.0	
Percentage of Wet Oversize (%)	0	
Field Wet Density (FWD) t/m ³	2.10	
Field Dry Density (FDD) t/m ³	**	
Peak Converted Wet Density t/m ³	2.08	
Adjusted Peak Converted Wet Density t/m ³	**	
Moisture Variation (Wv) %	0.0	
Adjusted Moisture Variation %	**	
Hilf Density Ratio (%)	101.5	
Compaction Method	Standard	
Report Remarks	**	

Moisture Variation Note:

Report Number: P18615-48

Issue Number:

17/03/2021 Date Issued:

Client: Dunlop & Pitson Pty Ltd

24 Jewell Court , Bendigo VIC 3550

Project Number: P18615

Project Name: View Point Estate

Project Location: Huntly Work Request: 8719 **Date Sampled:** 17/03/2021

Dates Tested: 17/03/2021 - 17/03/2021

Sampling Method: AS 1289.1.2.1 6.4 - Sampling from layers in earthworks or

pavement - uncompacted/compacted

Site Selection: Selected by Client

Location: Huntly **Material Source: Test Location**



Geotechnical Testing Services (Southern) Bendigo Soil and Concrete Testing Laboratory 13 Alstonvale Court East Bendigo VIC 3550

> Phone: (03) 5441 4881 Email: joshl@gts.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



Approved Signatory: Josh Lagodzki

NATA Accredited Laboratory Number: 19506

0			
Compaction Control AS 1289 5.7.1 & 5.8.1 Sample Number	1 B21-8719A	B21-8719B	B21-8719C
Date Tested	17/03/2021	17/03/2021	17/03/2021
Time Tested	11:48	11:51	11:55
Test Request #/Location	Stage E5 House Block	Stage E5 House Block	Stage E5 House Block
Chainage (m)	Lot 537	Lot 538	Lot 539
Location Offset (m)	Front Corner	Front	Front
Layer / Reduced Level	FSL	FSL	FSL
Thickness of Layer (mm)	300	300	300
Soil Description	Silty Gravelly Clay	Silty Gravelly Clay	Silty Gravelly Clay
Test Depth (mm)	250	250	250
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	2.04	2.13	2.09
Field Dry Density (FDD) t/m ³	**	**	**
Peak Converted Wet Density t/m ³	1.98	2.08	1.97
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	2.5	1.0	2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	103.0	102.5	106.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note: